

NEW

И.Ю. Ваник  
С.П. Личевская  
М.С. Левитская

---

АНГЛИЙСКИЙ ЯЗЫК.  
ПРОФЕССИОНАЛЬНАЯ КОММУНИКАЦИЯ  
В ОБЛАСТИ ИНФОРМАЦИОННЫХ ТЕХНОЛОГИЙ

# English

for professional  
communication

## in Information Technology



**МИНИСТЕРСТВО ОБРАЗОВАНИЯ РЕСПУБЛИКИ БЕЛАРУСЬ**  
**Белорусский национальный технический университет**

---

**Кафедра «Английский язык №1»**

**И.Ю. Ваник**  
**С.П. Личевская**  
**М.С. Левитская**

**АНГЛИЙСКИЙ ЯЗЫК. ПРОФЕССИОНАЛЬНАЯ КОММУНИКАЦИЯ В  
ОБЛАСТИ ИНФОРМАЦИОННЫХ ТЕХНОЛОГИЙ**

**ENGLISH FOR PROFESSIONAL COMMUNICATION IN INFORMATION  
TECHNOLOGY**

*Допущено Министерством образования Республики Беларусь  
в качестве электронного учебного пособия для студентов учреждений высшего образования по  
специальностям «Программное обеспечение информационных технологий»,  
«Информационные системы и технологии (по направлениям)»*

**Минск**  
**БНТУ**  
**2022**

Рецензенты:

кандидат педагогических наук, доцент кафедры стилистики английского языка  
Минского государственного лингвистического университета *П.М. Леонтьев*  
кандидат филологических наук, доцент кафедры межкультурной  
профессиональной коммуникации Белорусского государственного университета  
информатики и радиоэлектроники *Е.З. Шевалдышева*

**Ваник, И. Ю.**

Английский язык. Профессиональная коммуникация в области информационных технологий = English for professional communication in information technology: электронное учебное пособие для студентов специальностей 1-40 01 01 Программное обеспечение информационных технологий, 1-40 05 01 Информационные системы и технологии (по направлениям) / И.Ю. Ваник, С.П. Личевская, М.С. Левитская. – Минск: БНТУ, 2022.

Электронное учебное пособие направлено на обучение иноязычной профессионально ориентированной речи в области информационных технологий. Пособие состоит из 14 разделов, объединенных по тематическому принципу. Каждый раздел включает аутентичный материал для чтения, говорения, аудирования и письма. Данное пособие предусматривает использование гиперссылок и переход на справочный грамматический и видеоматериал. Широкий спектр упражнений направлен на систематизацию знаний студентов по предлагаемой тематике. Пособие можно использовать для самостоятельной аудиторной и внеаудиторной работы студентов.

Белорусский национальный технический университет  
пр-т Независимости, 65, Минск, Республика Беларусь  
Тел (017) 331-40-52  
E-mail: eng1@tut.by

© БНТУ, 2022  
© Ваник И.Ю., Личевская С.П.,  
Левитская М.С., 2022

## ПРЕДИСЛОВИЕ

Электронное учебное издание «Английский язык. Профессиональная коммуникация в области информационных технологий / English for Professional Communication in Information Technology» разработано в соответствии с учебной программой учреждения высшего образования по учебной дисциплине «Английский язык в профессиональной деятельности» для использования в образовательном процессе для студентов первой ступени получения высшего образования специальности 1-40 01 01 Программное обеспечение информационных технологий, специальности 1-40 05 01 Информационные системы и технологии (по направлениям): 1-40 05 01-01 Информационные системы и технологии (в проектировании и производстве), 1-40 05 01-04 Информационные системы и технологии (в обработке и представлении информации). ЭУИ разработано для проведения как аудиторных практических занятий, так и для организации самостоятельной работы студентов.

Целью электронного учебного издания является систематизация знаний студентов по предлагаемой тематике, обогащение их словарного запаса, а также совершенствование коммуникативных навыков иноязычного профессионального общения в устной и письменной форме.

ЭУИ можно скачать на персональный компьютер или мобильное устройство. ЭУИ содержит гиперссылки, позволяющие оперативно найти необходимый учебный материал. Гиперссылками являются все элементы «Содержания» ЭУИ. Щелчок по гиперссылке в «Содержании» вызывает переход на страницу с соответствующим разделом или подразделом. В тексте ЭУИ представлены гиперссылки на учебный материал, который расположен в сети Интернет. Все гиперссылки в тексте пособия выделены синим цветом. В случае использования гиперссылок должен быть установлен браузер.

Структура электронного пособия включает 14 разделов, охватывающих основные тематические области, относящиеся к сфере информационных технологий. Каждый раздел имеет единую структуру, включающую следующие ключевые элементы: Start-Up (введение в тему в виде проблемных вопросов), Vocabulary (лексические задания на систематизацию и активизацию тематического словаря), Reading (аутентичные тексты с заданиями для различных видов чтения и контроля понимания прочитанного, включая гиперссылки на задания для обобщения информации текста с использованием Mind Maps), Language Focus (грамматический справочный материал с рядом упражнений, нацеленных на систематизацию грамматических знаний и совершенствование грамматических навыков), Speaking (упражнения на развитие навыков устной речи в ситуациях профессионально ориентированного общения), Writing (задания на формирование навыков и умений ведения деловой переписки), Listening (аутентичный видеоматериал с упражнениями на развитие умений аудирования, длительность видеосегментов составляет 6 – 8 минут).

Электронное пособие имеет простой и удобный механизм навигации, четкую структуру, что существенно повышает качество визуальной информации.

## CONTENTS

<b>UNIT 1 IT GIANTS</b> .....	<b>9</b>
<b>START-UP</b> .....	<b>9</b>
<b>VOCABULARY</b> .....	<b>9</b>
<b>READING</b> .....	<b>11</b>
<b>LANGUAGE FOCUS</b> .....	<b>17</b>
<b>SPEAKING 1</b> .....	<b>21</b>
<b>SPEAKING 2</b> .....	<b>23</b>
<b>WRITING</b> .....	<b>25</b>
<b>LISTENING</b> .....	<b>28</b>
<b>UNIT 2 COMPUTER ARCHITECTURE</b> .....	<b>32</b>
<b>START-UP</b> .....	<b>32</b>
<b>VOCABULARY</b> .....	<b>32</b>
<b>READING</b> .....	<b>34</b>
<b>LANGUAGE FOCUS</b> .....	<b>37</b>
<b>SPEAKING</b> .....	<b>40</b>
<b>WRITING 1</b> .....	<b>43</b>
<b>WRITING 2</b> .....	<b>46</b>
<b>LISTENING</b> .....	<b>50</b>
<b>UNIT 3 MOBILE DEVICES</b> .....	<b>53</b>
<b>START-UP</b> .....	<b>53</b>
<b>VOCABULARY</b> .....	<b>53</b>
<b>READING</b> .....	<b>55</b>
<b>LANGUAGE FOCUS</b> .....	<b>58</b>
<b>SPEAKING</b> .....	<b>60</b>
<b>WRITING</b> .....	<b>63</b>
<b>LISTENING</b> .....	<b>66</b>
<b>UNIT 4 OPERATING SYSTEMS</b> .....	<b>69</b>
<b>START-UP</b> .....	<b>69</b>
<b>VOCABULARY</b> .....	<b>69</b>
<b>READING</b> .....	<b>71</b>
<b>LANGUAGE FOCUS</b> .....	<b>73</b>
<b>SPEAKING</b> .....	<b>76</b>
<b>WRITING</b> .....	<b>78</b>
<b>LISTENING</b> .....	<b>80</b>
<b>UNIT 5 DATABASE MANAGEMENT SYSTEM (DBMS)</b> .....	<b>83</b>
<b>START-UP</b> .....	<b>83</b>

VOCABULARY .....	83
READING .....	85
LANGUAGE FOCUS .....	87
SPEAKING .....	90
WRITING .....	94
LISTENING .....	97
<b>UNIT 6 GAME DEVELOPMENT .....</b>	<b>100</b>
START-UP .....	100
VOCABULARY .....	100
READING .....	102
LANGUAGE FOCUS .....	105
SPEAKING .....	108
WRITING .....	110
LISTENING .....	113
<b>UNIT 7 ALGORITHMS. PROGRAMING LANGUAGES.....</b>	<b>117</b>
START-UP .....	117
VOCABULARY .....	117
READING .....	119
LANGUAGE FOCUS .....	121
SPEAKING 1 .....	126
SPEAKING 2 .....	128
WRITING .....	130
LISTENING .....	133
<b>UNIT 8 ARTIFICIAL INTELLIGENCE AND NEURAL NETWORKS.....</b>	<b>137</b>
START-UP .....	137
VOCABULARY .....	137
READING .....	139
LANGUAGE FOCUS .....	142
SPEAKING 1 .....	145
SPEAKING 2 .....	146
WRITING .....	148
LISTENING .....	152
<b>UNIT 9 IMAGE RECOGNITION .....</b>	<b>155</b>
START-UP .....	155
VOCABULARY .....	155
READING .....	157
LANGUAGE FOCUS .....	160

SPEAKING 1 .....	164
SPEAKING 2 .....	166
WRITING .....	168
LISTENING .....	171
<b>UNIT 10 SOFTWARE TESTING .....</b>	<b>174</b>
START-UP .....	174
VOCABULARY .....	174
READING .....	176
LANGUAGE FOCUS .....	180
SPEAKING 1 .....	185
SPEAKING 2 .....	186
WRITING 1.....	189
WRITING 2.....	189
LISTENING .....	194
<b>UNIT 11 CYBERSECURITY .....</b>	<b>198</b>
START-UP .....	198
VOCABULARY .....	198
READING .....	200
LANGUAGE FOCUS .....	203
SPEAKING 1 .....	205
SPEAKING 2 .....	206
WRITING .....	207
LISTENING .....	209
<b>UNIT 12 ROBOTICS .....</b>	<b>213</b>
START-UP .....	213
VOCABULARY .....	213
READING .....	215
LANGUAGE FOCUS .....	218
SPEAKING 1 .....	224
SPEAKING 2 .....	225
WRITING .....	227
LISTENING .....	229
<b>UNIT 13 WEB DEVELOPMENT .....</b>	<b>233</b>
START-UP .....	233
VOCABULARY .....	233
READING .....	235
LANGUAGE FOCUS .....	238

<b>SPEAKING</b> .....	<b>244</b>
<b>WRITING</b> .....	<b>245</b>
<b>LISTENING</b> .....	<b>251</b>
<b>UNIT 14 MOBILE APPLICATION DEVELOPMENT</b> .....	<b>255</b>
<b>START-UP</b> .....	<b>255</b>
<b>VOCABULARY</b> .....	<b>255</b>
<b>READING</b> .....	<b>257</b>
<b>LANGUAGE FOCUS</b> .....	<b>260</b>
<b>SPEAKING</b> .....	<b>266</b>
<b>WRITING</b> .....	<b>269</b>
<b>LISTENING</b> .....	<b>270</b>
<b>REFERENCES</b> .....	<b>275</b>



# UNIT 1

## IT GIANTS

### START-UP

---

#### 1. Answer the questions.

1. What IT-companies do you know?
2. What are their most popular products?
3. Which of them do you use?



### VOCABULARY

---

#### 1. Match the words with their definitions.

- |                       |  |
|-----------------------|--|
| 1) peripherals        | a) relating to any of various systems which can manipulate data in a variety of forms, such as sound, graphics, or text  |
| 2) application        | b) a small flat computer that you operate by touching the screen   |
| 3) hardware           | c) devices that can be attached to computers   |
| 4) multimedia         | d) a large powerful computer which can be used by many people at the same time and which can do very large or complicated tasks  |
| 5) podcasting         | e) the programs, routines, etc. for a computer or computer system  |
| 6) interface          | f) a service provided on the internet enabling users to search for items of interest   |
| 7) mainframe computer | g) the physical equipment used in a computer system, such as the central processing unit, peripheral devices, and memory   |
| 8) laptop computer    | h) a program enabling a user to communicate with a computer  |
| 9) search engine      | i) an insulated board or panel on which interconnected circuits and other components are mounted or printed  |
| 10) software          | j) an audio file similar to a radio broadcast, which can be downloaded and listened to on a computer, mp3 player, mobile phone, etc.                                     |
| 11) circuit board     | k) a microcomputer small and light enough to sit on the user's lap and containing, in a single unit, a keyboard, LCD screen, microprocessor, and, a rechargeable battery |
| 12) tablet computer   | l) a piece of software designed to carry out a particular task   |

**2. Match the synonyms given below.**

- |                  |                       |
|------------------|-----------------------|
| 1. portable      | a. to transform       |
| 2. to purchase   | b. prominent          |
| 3. to integrate  | c. to buy             |
| 4. concern       | d. to look for        |
| 5. departure     | e. to combine         |
| 6. preeminent    | f. to keep            |
| 7. to retain     | g. origin             |
| 8. ubiquitous    | h. leave              |
| 9. to search for | i. integrated circuit |
| 10. feasible     | j. worry              |
| 11. genesis      | k. widespread         |
| 12. to convert   | l. mobile             |
| 13. chip         | m. possible           |

**3. Complete the table with the appropriate derivatives. Pay attention to the meaning of the words.**

Verb	Noun	Adjective / Participle
		productive
operate		
	competition	
apply		
		hopeful
	expression	
succeed		
	popularity	
		innovative
develop		

**4. Complete the sentences with the appropriate derivative of the word given in capitals.**

1. What is the most popular \_\_\_\_\_ system? (OPERATE)
2. I'm going to take a course in \_\_\_\_\_ mathematics this semester. (APPLY)
3. The company is trying to \_\_\_\_\_ its new \_\_\_\_\_. (POPULARITY; APPLY)
4. We need to encourage \_\_\_\_\_ in industry. (INNOVATIVE)
5. We congratulated them on the \_\_\_\_\_ completion of the project. (SUCCEED)
6. A scientist must \_\_\_\_\_ evidence in support of a theory. (PPRODUCTIVE)
7. All our profits are re-invested in research and \_\_\_\_\_. (DEVELOP)
8. I can't \_\_\_\_\_ how grateful I am. (EXPRESSION)

## READING

---

### 1. Before reading the text “Microsoft” match the words with their definitions.

- |                        |   |
|------------------------|---|
| 1. cloud computing     | a. to improve the idea, method, system by making small changes  |
| 2. to relinquish       | b. a computer program used for accounting and recording data using rows and columns into which information can be entered |
| 3. to release          | c. to give up something such as responsibility  |
| 4. spreadsheet program | d. to prevent someone doing something easily  |
| 5. to hamper           | e. the delivery of computing services (storage, databases, networking) over the Internet                                  |
| 6. to derive from      | f. to make a product available for the public to buy  |
| 7. to refine           | g. to come from something, originate  |

### 2. Use the words in the box to complete the sentences and make any necessary changes.

**derive from, relinquish, cloud computing, release, refine, spreadsheet program**

1. \_\_\_\_ will eliminate the cost of purchasing hardware, software and running on-site data centres.
2. We've \_\_\_\_ the system since it was first launched.
3. The term computer is \_\_\_\_ the Latin word “computare” which means “to calculate”, “to count”, “to think together”.
4. They've just \_\_\_\_ a new version of the operating system.
5. He refused to \_\_\_\_ control of his company.
6. A \_\_\_\_ provides flexible presentation of data and interaction with databases.

### 3. Read the text and answer the questions.

1. What does Microsoft specialize in?
2. Who are the founders of Microsoft?
3. Are they still managing the company?
4. When was Microsoft founded?
5. What is the name Microsoft derived from?
6. What did Microsoft do to produce an operating system for IBM?
7. What company did Microsoft buy in 2011?
8. How did the departure of Bill Gates influence Microsoft's preeminent position in the computer industry?



Microsoft Corporation is a leading developer of personal-computer software systems and applications. The company also publishes books and multimedia titles, produces its own line of hybrid tablet computers, offers e-mail services, and sells electronic game systems, computer peripherals (input /output devices), and portable media players.

In 1975 Bill Gates and Paul G. Allen, two boyhood friends from Seattle, converted BASIC, a popular mainframe computer programming language, for use on an early personal computer (PC), the Altair. The same year, Gates and Allen founded Microsoft, deriving the name from the words microcomputer and software. During the next few years, they refined BASIC and developed other programming languages. In 1980 International Business Machines Corporation (IBM) asked Microsoft to produce an operating system, for its first personal computer, the IBM PC. Microsoft purchased an operating system from another company, modified it, and renamed it MS-DOS (Microsoft Disk Operating System). MS-DOS was released with the IBM PC in 1981.

In 1995 the company released Windows 95, which for the first time fully integrated MS-DOS with Windows. Microsoft also became the leader in productivity software such as word-processing and spreadsheet programs.

In its competition with Google, Microsoft moved into cloud computing, where application software and data storage are provided by centralized Internet services and are simply accessed by users through their local PCs.

In 2011 Microsoft bought the Internet voice communication company Skype.

In 2000 company cofounder Gates relinquished his role as CEO (Chief Executive Officer) of Microsoft to Steve Ballmer, whom Gates had met at Harvard University in the 1970s.

There was some concern (and some hopefulness) among industry observers that the departure of Gates would hamper Microsoft's preeminent position in the computer industry. That situation did not materialize. The company retained its top spot in both business and consumer segments, including operating systems, productivity software, and online gaming services [26].

#### **4. Read the text again and choose whether these statements are true or false.**

1. Microsoft is a world-famous producer of consumer electronics.
2. Bill Gates and Paul G. Allen converted Basic for use on mainframe computers.
3. Microsoft developed an operating system for IBM from scratch.
4. In 1995 the company released MS-DOS.
5. Microsoft also became the leader in word-processing and spreadsheet programs.
6. In 2000 company cofounder Gates relinquished his role as CEO (Chief Executive Officer) of Microsoft.
7. The leave of Bill Gates hampered Microsoft's leading position in the computer industry.

**5. Match the words that go together in the text.**

- |                  |                                |
|------------------|--------------------------------|
| 1. to retain     | a. Windows 95                  |
| 2. to convert    | b. the role as CEO             |
| 3. to hamper     | c. voice communication company |
| 4. to release    | d. top spot                    |
| 5. to buy        | e. into cloud computing        |
| 6. to relinquish | f. an operating system         |
| 7. to purchase   | g. Basic                       |
| 8. to move       | h. preeminent position         |

**6. Make two sentences with any word combinations from Exercise 5.**

**7. Develop the ideas about Microsoft with the help of the Mind Map. Follow the [LINK](#).**

**8. Make a short summary of the text.**

**9. Before reading the text “Google” match the words with their definitions.**

- |                 |   |
|-----------------|---|
| 1. headquarters | a. to exceed, be greater than                             |
| 2. subsidiary   | b. the main office or centre of control of a company      |
| 3. to suit      | c. the company that is owned by a larger company          |
| 4. ubiquitous   | d. to be convenient or work well for someone or something |
| 5. to surpass   | e. found or existing everywhere                           |

**10. Read the text and answer the questions.**

1. What kind of company is Google?
2. When was Google founded?
3. Who are the founders of Google?
4. What does Google’s product portfolio include?
5. What does the verb *to google* mean?
6. What is Java Script Engine better suited for?
7. Is Chrome or Internet Explorer the most popular Web browser?



Google Inc., American search engine company, founded in 1998 by Sergey Brin and Larry Page that is a subsidiary of the holding company Alphabet Inc. Its headquarters are in Mountain View, California.

More than 70 percent of worldwide online search requests are handled by Google, placing it at the heart of most Internet users' experience.

Google began as an online search firm, but it now offers more than 50 Internet services and products, from e-mail and online document creation to software for mobile phones and tablet computers. In addition, its 2012 acquisition of Motorola Mobility put it in the position to sell hardware in the form of mobile phones. Google's broad product portfolio and size make it one of the top four influential companies in the high-tech marketplace, along with Apple, IBM, and Microsoft. Despite this myriad of products, its original search tool remains the core of its success.

The company's name became so ubiquitous that it entered the lexicon as a verb: to google became a common expression for searching the Internet.

In 2008 Google released Chrome, a Web browser with an advanced JavaScript engine better suited for running programs within the browser.

In 2012 Chrome surpassed Microsoft's Internet Explorer (IE) to become the most popular Web browser and, as of 2017, has maintained its lead over IE, Mozilla Corporation's Firefox, and Apple Inc.'s Safari [18].

**11. Read the text again and choose whether these statements are true or false.**

1. More than 30 percent of worldwide online search requests are handled by Google.
2. Google specializes only in online search.
3. Google is one of the top four influential companies in the high-tech marketplace.
4. The company's name became so ubiquitous that it entered the lexicon as a verb.
5. Microsoft's Internet Explorer surpassed Chrome in 2012.

**12. Match the words that go together in the text.**

- |                  |                           |
|------------------|---------------------------|
| 1. product       | a. online search requests |
| 2. high-tech     | b. tool                   |
| 3. search        | c. experience             |
| 4. to handle     | d. the lead               |
| 5. online        | e. company                |
| 6. search engine | f. portfolio              |
| 7. users'        | g. marketplace            |
| 8. to maintain   | h. search firm            |

**13. Make two sentences with any word combinations from Exercise 12.**

**14. Develop the ideas about Google with the help of the Mind Map. Follow the [LINK](#).**

**15. Make a short summary of the text.**

**16. Before reading the text “Apple” match the words with their definitions.**

- |                   |   |
|-------------------|---|
| 1. intern         | a. to transmit on radio or television   |
| 2. start-up       | b. to do something before it can be done by somebody else                               |
| 3. to incorporate | c. a student or recent graduate receiving practical experience in a working environment |
| 4. to unveil      | d. difficult to use, do or deal with  |
| 5. to anticipate  | e. to include something so that it forms a part of something                            |
| 6. to broadcast   | f. a newly established business   |
| 7. awkward        | g. to show or announce publicly for the first time                                      |

**17. Complete the sentences with the words from the box.**

**incorporates, start-up, broadcast, anticipated, awkward, intern, unveil**

1. Companies from across the country are here to \_\_\_\_\_ their latest models.
2. The computer came in a big box that was \_\_\_\_\_ to carry.
3. The new car design \_\_\_\_\_ all the latest safety features.
4. You've \_\_\_\_\_ my next question.
5. After I graduate, I plan to work as an \_\_\_\_\_ at an advertising agency.
6. Thousands of \_\_\_\_\_ firms have poured into the computer market.
7. The event will be \_\_\_\_\_ over the Internet.

**18. Read the text and answer the questions.**

1. What does Apple company specialize in?
2. When and where was Apple company set up?
3. Who are the founders of Apple?
4. What lifelong dream did Stephen Wozniak have?
5. Did Stephen Wozniak realize his dream at Hewlett-Packard Company? Why?
6. What innovations did Apple incorporate into their personal computers in 1980s?
7. What Apple product is included in the term podcasting?
8. What mobile devices were introduced by Apple?



Apple Inc., is an American manufacturer of personal computers, computer peripherals, and computer software. Headquarters are located in Cupertino, California.

Apple Inc. had its genesis in the lifelong dream of Stephen Wozniak to build his own computer – a dream that was made suddenly feasible with the arrival in 1975 of the first commercially successful microcomputer, the Altair 8800, which came as a kit and used the

recently invented microprocessor chip. In 1976, when the Hewlett-Packard Company, where Wozniak was an engineering intern, expressed no interest in his design, Wozniak, then 26 years old, together with a former high-school classmate, 21-year-old Steven Jobs, moved production operations to the Jobs' family garage – and the Silicon Valley garage start-up company legend was born. Jobs and Wozniak named their company Apple.

In 1979 Jobs had led a team of engineers to see the innovations created at the Xerox Corporation's Research Center. There they were shown the first functional graphical user interface (GUI), a pointing device known as a mouse, and the use of icons, or pictures, to replace the awkward protocols required by all other computers. Apple immediately incorporated these ideas into two new computers: Lisa, released in 1983, and the lower-cost Macintosh, released in 1984.

Another innovation was a software database called HyperCard, which Apple included free with every Mac starting in 1987. HyperCard used a technique called hyperlinking as a way of navigating a stack of "cards" in a flat-file database. This program was employed by many teachers to organize multimedia elements for classroom presentations. The concept of hyperlinks anticipated the creation of the World Wide Web.

In 2001 Apple introduced iTunes, a computer program for playing music and for converting music to the compact MP3 digital format commonly used in computers and other digital devices. Later the same year, Apple began selling the iPod, a portable MP3 player, which quickly became the market leader. The term podcasting, combining iPod and broadcasting, is referred to audio or video material downloaded for portable or delayed playback.

In 2007 Apple introduced the touch-screen iPhone, a cellular telephone with capabilities for playing MP3s and videos and for accessing the Internet.

In 2010 Apple unveiled the iPad, a touch-screen device intermediate in size between a laptop computer and a smartphone. The touch screen was capable of displaying high-definition video.

In 2011 Apple released iCloud, a cloud computing service in which a user's applications, photographs, documents would be stored and automatically updated in the user's other devices. In 2015 Apple introduced a smartwatch, the Apple Watch [14].

### **19. Read the text again and choose whether these statements are true or false.**

1. Apple is a British manufacturer of personal computers, computer peripherals, and computer software.
2. Stephen Wozniak was a marketing intern at Hewlett-Packard Company.
3. Apple has its origin in Silicon Valley.
4. Two former high-school classmates created a start-up company in 1976.
5. The creation of the World Wide Web anticipated the Apple's concept of hyperlinks.
6. In 2005 Apple introduced iTunes.
7. Podcasting is audio or video material downloaded for portable or delayed playback.
8. iPad is a touch-screen device intermediate in size between a laptop and a desktop.



**20. Match the words that go together in the text.**

- |                 |                          |
|-----------------|--------------------------|
| 1. former       | a. in size               |
| 2. cellular     | b. playback              |
| 3. intermediate | c. the awkward protocols |
| 4. to become    | d. high-school classmate |
| 5. delayed      | e. company               |
| 6. to replace   | f. telephone             |
| 7. start-up     | g. the market leader     |

**21. Make two sentences with any word combinations from Exercise 20.**

**22. Develop the ideas about Apple with the help of the Mind Map. Follow the [LINK](#).**

**23. Make three sentences about IT Giants using a [word-cloud](#). You have to use each word once. You might need to use the verb to be and some articles.**

**24. Make a short summary of the text.**

**LANGUAGE FOCUS**

---

**MULTIFUNCTIONAL VERBS**

**Consult grammar rule using the [LINK](#).**

**1. Complete the dialogue with the missing forms of the verb to be.**

**Paul:** Hi. \_\_\_\_ you Anna?

**Maria:** No, I \_\_\_\_ not. But she asked me to meet you. I \_\_\_\_ Maria. You must \_\_\_\_  
Paul.

**Paul:** Yes, I \_\_\_\_! Nice to meet you.

**Maria:** You too. Can I show you the office?

**Paul:** Perfect. Thanks.

**Maria:** So, how \_\_\_\_ your journey?

**Paul:** It \_\_\_\_ OK, thanks.

**Maria:** Ah, Matt, this \_\_\_\_ Paul.

**Matt:** Hi, I \_\_\_\_ Matt. Nice to meet you, Paul. Welcome to the team!

**2. Complete the sentences with the verb to be in the correct form.**

1. Microsoft Corp. \_\_\_\_ founded by Bill Gates and Paul Allen in 1975.
2. More than 70 percent of worldwide online search requests \_\_\_\_ handled by Google.
3. I \_\_\_\_ working on my science project at the moment.

4. In November 1980, IBM \_\_\_\_\_ looking for software that would operate their upcoming PC and approached Microsoft.
5. Ivan wants \_\_\_\_\_ a software developer when he leaves school.
6. All workers \_\_\_\_\_ to wear uniform.
7. \_\_\_\_\_ quiet! I can't hear what they \_\_\_\_\_ saying.
8. Who \_\_\_\_\_ in charge of the Microsoft Cloud team?
9. Next year our company \_\_\_\_\_ a participant of the TIBO IT Forum.
10. The online search engine Google \_\_\_\_\_ one of the most successful sites on the Internet.

**3. Use the words in the box to complete the sentences and make any necessary changes.**

**to be interested, to be responsible, to be available, to be designed, to be created, to be compatible, to be recognized, to be called**

1. Famous pioneers of technology including Steve Jobs, Bill Gates, Mark Zuckerberg and other brilliant minds \_\_\_\_\_ for shaping the world we live in.
2. In 1989, Microsoft introduced Microsoft Office which \_\_\_\_\_ with all Microsoft products.
3. Technology companies have a unique advantage over other businesses, and it \_\_\_\_\_ the network effect.
4. Both Steve Jobs and Steve Wozniak \_\_\_\_\_ in electronics.
5. Every Apple product \_\_\_\_\_ to protect your personal information.
6. In 2016, Bill Gates and his wife Melinda \_\_\_\_\_ for their philanthropic work.
7. Google also developed innovative features that \_\_\_\_\_ (not) on Facebook.
8. The consortium of dozens of technology and mobile telephone companies \_\_\_\_\_ in order to develop and promote Android.

**4. Practice the use of the verb to be with your partner in Business Telephoning.**

**Follow the model:**

**A:** - Hello. Could / May I speak to Mr. Borisov? or Good morning / afternoon.

I'd like to speak to Julia, please.

**B:** - I'm sorry / I'm afraid / Unfortunately, but he's / she's not in today.

**A:** - Do you know / Do you have any idea when she'll be back / he'll be free?

**B:** - He / she should be in the office tomorrow afternoon.

**A:** - OK. I've got it / I'm clear now. Thanks.

1. Mr. Tomson / out of town / next Monday
2. Peter Green / in a meeting this morning / in a few hours
3. Kate Morrison / to be tied up at the moment / in half an hour
4. Mr. Smith / not available right now / at 11 a.m.
5. Pavel Smirnov / out of the office today / tomorrow morning

6. Mr. Williams / off sick at the moment / next week
7. Liza Belova / on annual leave at the moment / next Wednesday
8. Harry / away on a business trip / on Tuesday morning

**5. Complete the sentences with the verb to have in the correct form.**

1. At school both Bill Gates and Paul Allen \_\_\_\_ common enthusiasm for computers.
2. The cloud \_\_\_\_ some built-in advantages.
3. You \_\_\_\_ to undertake a series of tests for this project.
4. For 40 years, Apple \_\_\_\_ helped teachers unlock the creative potential in every student.
5. When students \_\_\_\_ more ways to express ideas, it changes how they think.
6. Bill Gates \_\_\_\_ to adapt the new software to work for the IBM PC.
7. You \_\_\_\_ already \_\_\_\_ lots of opportunities to do the project.
8. As you're driving, you \_\_\_\_ (not) to worry about missing messages with the Android Auto app.
9. YouTube \_\_\_\_ a great deal of resources to help people advance their careers, prepare for new jobs or grow their businesses.
10. Today we are \_\_\_\_ so much work to do.

**6. Complete the sentences with the verb to do in the correct form.**

1. Whether you're taking a photo, or getting directions, you can \_\_\_\_ it knowing that Apple \_\_\_\_ (not) gather your personal information.
2. When \_\_\_\_ Sergey Brin and Larry Page found Google?
3. What \_\_\_\_ Google specialize in?
4. Research shows that more than 65 percent of today's students will work in jobs that \_\_\_\_ (not) even exist yet.
5. The test is well \_\_\_\_.
6. Microsoft is constantly \_\_\_\_ research in the field of intelligent search tools.
7. Microsoft Dynamics 365 will help the company focus on \_\_\_\_ what it \_\_\_\_ best: assisting customers more productively.
8. The cloud solution opens the doors to future use-cases which \_\_\_\_ (not) even exist today.
9. What \_\_\_\_ Azure Machine learning service enable data scientist to \_\_\_\_?
10. Apple revolutionized personal technology with the introduction of the Macintosh in 1984, \_\_\_\_ it?

**7. Choose the right option.**

1. In 1976, when Steve Jobs \_\_\_\_ just 21, he and Steve Wozniak started Apple Computer in the Jobs' family garage.
  - a) were
  - b) was

- c) has been
2. We \_\_\_\_ looking for a technology partner.  
a) am  
b) is  
c) are
3. Apple \_\_\_\_ a multigenerational company with employees from 18 to 85.  
a) been  
b) am  
c) is
4. I \_\_\_\_ a director of this school for ten years.  
a) has been  
b) have had  
c) have been
5. Cortana, your personal digital assistant, \_\_\_\_ access to your search and browsing history.  
a) is  
b) have  
c) has
6. 95 Apple ConnectED schools \_\_\_\_ received upgrades to their wireless networks since 2014.  
a) have  
b) were  
c) has
7. Every Apple product \_\_\_\_ designed to \_\_\_\_ simple and usable.  
a) have, have  
b) is, do  
c) is, be
8. Google \_\_\_\_ and always \_\_\_\_ an engineering company that thinks big and takes risks.  
a) is, will be  
b) was, does  
c) have been, be
9. At Google, we're \_\_\_\_ more than just training, we want to help people put new digital skills to use.  
a) being  
b) having  
c) doing

10. Last year, over 95 billion apps \_\_\_\_\_ downloaded globally from Play app store.
- are
  - were
  - have been

**8. Correct the mistakes. There may be more than one mistake in some sentences.**

- Google was invested billions of dollars over the last decade to make Android what it was today.
- Phone makers doesn't have to include Google services on their wide range of devices.
- Today 29% of leaders at Apple were women.
- Every Apple device are made with incredible attention to every detail throughout the production process.
- Cyberattacks on manufacturers have increasing in number in recent years.
- In the past, there was some reasons why multidisciplinary optimization could not be do.
- Steve Jobs returned to Apple in 1997, wasn't he?
- What does recent advances in computer processing allow manufacturers to do?
- Engineers need the ability to have productive whenever they be.
- Apple's facilities is powered by 100 percent renewable energy.

**SPEAKING 1**

*Meeting A New Team Member*

**Start-up**

What do you usually talk about when you meet people for the first time?



**1. Before listening to the conversation between Peter and Carla, complete the questions and sentences using the phrases from the box.**

**to meet you / you do / you work / you worked here / you from / your name**

- What's.....?
- Where do.....?
- It's nice.....
- What do.....?
- Where are.....?
- How long have.....?

2. Listen to the **recording** and do the exercises.

3. Are the sentences true or false?

1. Peter is new in the company.
2. Peter is a designer.
3. Carla works in marketing.
4. Peter plans events for new products.
5. Carla is Brazilian.
6. Peter started his job five years ago.

4. Choose the sentences under the correct speaker.

Carla	Peter
-------	-------

1. I'm happy to be here.
2. I started last week.
3. I work in the design team.
4. I moved here from the UK five years ago.
5. I design new products.
6. I'm new here.

5. Match the sentences (1–6) with the answers (a–f).

Sentences	Answers
1. What's your name?	a. I'm from Brazil.
2. Where do you work?	b. I design new products.
3. It's nice to meet you.	c. I've worked here for three years.
4. What do you do?	d. My name's Peter. / I'm Carla.
5. Where are you from?	e. I work in the design team.
6. How long have you been here?	f. It's nice to meet you too.



### Role Play

**Work with your partner. Role-play a dialogue based on the situation of meeting a new team member. Student A starts the conversation.**

**Student A:** You work in the programming team of a game development studio. You write code that runs the game. You've worked here for 2 years. Greet a new team member. Introduce yourself. Discuss your responsibilities in the teams. Ask your colleague where he / she is from. Welcome a new member to the company.

**Student B:** You work in the same game development studio as **Student A**. You are new here. You work in the design team. You design 3D animation. Discuss your responsibilities in the teams. You think you'll definitely work together on the project. Ask your colleague where he / she is from. Also ask how long he / she has been in the company.

## SPEAKING 2

---

### Meeting People

#### Start-up

Are the questions below appropriate to ask someone you don't know? Give reasons.

#### Example:

*It is inappropriate in many cultures to ask questions about salaries.*

*It is appropriate in many cultures to ask if you like travelling.*

1. What brings you here?
2. What do you do?
3. Is your job well-paid?
4. How old are you?
5. Do you live in this neighborhood?
6. Are you here with anyone?
7. Are you religious?
8. The weather is terrible, isn't it?
9. Is this your first visit to Serbia?

1. Listen to four conversations between Greg Baird, Silke Werner and Alan Banks. [LINK 1](#), [LINK 2](#), [LINK 3](#), [LINK 4](#)  
Answer the questions for each conversation.

1. Where are the speakers?
2. Do they know each other?
3. What else do we learn about the speakers?



2. With a partner, find suitable words to complete the chart with useful expressions below. Then listen again and check your answers. [LINK 1](#), [LINK 2](#), [LINK 3](#), [LINK 4](#)

Meeting and greeting people	Keeping the conversation going
<p>Is this seat _____?</p> <p>Are you here for the _____?</p> <p>Hello, my name's Greg. I'm _____ Sanofi.</p> <p>Pleased / Nice to _____ you.</p> <p>Pleased / Nice to _____ you, _____.</p> <p>Alan, _____ to see you! Good to see you _____,</p> <p>Greg!</p> <p>Silke, _____ is Alan Banks.</p>	<p>London? _____? Go on.</p> <p>Do tell me _____!</p> <p>Uh-huh? I see.</p> <p>I love _____ new _____ and _____ new people, don't you?</p>
Changing the subject	Finishing a conversation
<p>Listen, _____ of _____, do you have _____ for a _____ of _____?</p> <p>Enough about _____. _____ talk about _____.</p> <p>By the _____, there's a _____ of the old _____.</p> <p>Are you interested _____ _____?</p>	<p>Do _____ me.</p> <p>Anyway, I _____ must _____ some _____, so ...</p> <p>It was nice _____ to you.</p> <p>See you _____.</p>

### 3. Cross out the one incorrect option in each situation.

1. Hello, my name's Felipe Conti.  
**a)** Pleased to meet you. **b)** Are you at the same job? **c)** Nice to meet you.
2. Hi, great to see you again!  
**a)** Pleased to meet you. **b)** How's going? **c)** Good to see you too.
3. Let me introduce you.  
**a)** Al, this is Khalid. **b)** Al, I'd like you to meet Khalid. **c)** Have we met? I'm Bill.
4. Excuse me, I just need to talk to Gina over there.  
**a)** OK, it was nice talking to you. **b)** OK, see you later. **c)** Nice to meet you too.
5. How are you doing?  
**a)** I'm doing great. And you? **b)** That sounds perfect. **c)** I'm fine. How about yourself?
6. Sorry to keep you waiting.  
**a)** That's all right. **b)** No problem. **c)** Please.

### 4. Restore the original conversation. Start with the sentence in bold.

1. **Is this your first visit to Greece?**
2. We're at the Mercure Hotel. My husband is here with me.
3. I'm from Ireland, actually. But I work in London now.
4. Oh, really? Lucky you! What do you do?
5. I'm in the holiday business, too, actually. I'm a travel agent.
6. I see. By the way, can you recommend a good restaurant in town?



7. Yes, two. But they're at home with their grandparents. And you? Are you a family man?
8. Well, welcome to Greece. Where are you staying?
9. Sure. If you like fish, the Marina is very good. I love Greek food, don't you?
10. No, I live here. On one of the islands, actually.
11. Uh-huh. And where are you from?
12. Me? No! I'm single.
13. That's nice. Do you have children?
14. I'm a hotel manager. What about you? What sector do you work in?

**5. Work in groups of three. You are at an international conference. Think out the country hosting the conference and choose names for you and the companies (organizations) where you work. B and C are familiar to each other and know each other's names.**

**Make a conversation using the chart below. Then role play it.**

Student A	Student B	Student C
1. Start a conversation with B (a stranger for you). Say something about the place.	2. Respond. Ask if Student A is there for the conference.	
3. Respond Introduce yourself. Name the organization you are from.	4. Introduce yourself in response. Name the organization you are from.	5. You see B, an old friend. Greet him/her.
	6. Greet C in response. Introduce C to A.	7. Greet A. Ask A where he / she is she from.
8. Respond. Talk about where you live and work.	9. Say you must go. Give reason: you need to talk to your assistant over there.	10. Continue the conversation. Ask A where he / she is staying.
11. Respond and change the subject: ask C if he / she can recommend a good restaurant in the town.		12. Recommend the one down the street.

## WRITING

### *Formal and Informal emails*

Here are some important points to consider when starting and finishing an email. We write a formal email when we want to be polite, or when we do not know the reader very well.

A lot of work emails are formal. We write informal emails when we want to be friendly, or when we know the reader well. A lot of social emails are informal. Here are some examples of formal and informal messages:



Formal	Informal
An email to a customer	A birthday greeting to a colleague
A job application	An email to a colleague who is also a good friend
An email to your manager	A social invitation to a friend at your workplace
A complaint to a shop	An email with a link to a funny YouTube clip
An email from one company to another company	A message to a friend / colleague on a social networking site

### Layout and punctuation

**Starting an email:** We normally write a comma after the opening phrase. We start a new line after the name of the person we're writing to.

**Finishing an email:** We normally write a comma after the closing phrase. We start a new line to write our name at the end.

Formal	Informal
Dear Mr Wilson, I am writing to thank you for all your help. I look forward to seeing you next week. With best wishes, Andrew Fisher	Hi Nick, Many thanks for your help. See you next week. Cheers, Max

### Phrases for starting and finishing

	Formal	Informal
Starting phrases	Dear Mr Wilson,	Hi Nick,
	Dear Sir or Madam,	Hi there Nick,
	Good morning /afternoon /evening Nick,	Morning / Afternoon / Evening Nick,
	Dear Nick,	Hello again Nick,

Ending phrases	Yours sincerely,	Regards / Rgds,
	Yours faithfully,	Cheers,
	Yours truly,	Bye for now,
	With best wishes / regards	See you soon,
	Best wishes,	
With many thanks and best wishes,		

**1. Match the opening lines of the emails to the descriptions. Decide which emails are formal and which are informal ones.**

1. Hi there Randy, Hope you're well. Might be a bit late on Saturday ...	a. Steve Baker emailed all the physics teachers at his department about some training.
2. Dear Mr. Jonson, I am writing to you to find out ...	b. Baker sent an email asking for more information about the conference. He didn't know the name of the person who will read the email.
3. Morning everyone, Just thought you might be interested to know that ...	c. Baker wrote to his friend about their plans to play tennis at the weekend.
4. Dear Sir or Madam, Could you please send me ...	d. Baker emailed his boss who went on a business trip.

**2. Put the words in the right order to make sentences, and then complete the emails.**

- a. look / you / to working / forward /with / We
- b. hearing / I / to / from / look / you / soon / forward
- c. your / forward / I / application / receiving / look / to
- d. I / meeting / forward / to / look / you

**Email 1**

Dear Mr. Stevenson,  
Please find enclosed an application form for the post of Full-stack developer. \_\_\_\_\_  
for this job. The deadline is May 17.

Yours sincerely,  
Kate Morgan, HR manager

**Email 2**

Hello Peter,  
I can phone you on Tuesday at 11:30 am. Can you let me know if that is convenient,  
please? \_\_\_\_\_.

Regards, James

**Email 3**

Dear Mrs. Jackson,

I am writing to confirm our appointment in my office on Wednesday March 23. Please report to Reception when you arrive, and they will direct you to my office. I hope you have a safe journey here, and \_\_\_\_\_ on Wednesday.

With best wishes,  
Laura Martinez

#### **Email 4**

Dear Keily,

Congratulations on getting the job. My team in the International Office and I would like to welcome you to SoftGroup. I am sure you will enjoy your new role. \_\_\_\_\_.

Best wishes,  
Ewa Thomson, Director

## **LISTENING**

---

### *The First Week at Google*

#### **SETTING THE CONTEXT**

1. What do you know about Google? When and where was it founded?
2. Google products are designed to help you work and play, stay organized, get answers, keep in touch, grow your business, and more. How often do you personally use Google products? What are your favorite ones?

#### **ACTIVATING VOCABULARY**

**Match the English words with their Russian equivalents.**

1. campus	a. стажёр
2. incredible	b. искать решение какой-либо задачи с помощью техники "мозгового штурма"
3. complexity	c. территория университета
4. efficiency	d. сложность; запутанность
5. perspective	e. эффективность; продуктивность
6. responsibility	f. ответственность
7. to brainstorm	g. перспектива, ракурс; вид на будущее
8. an intern	h. невероятный, удивительный

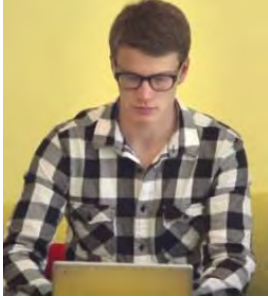
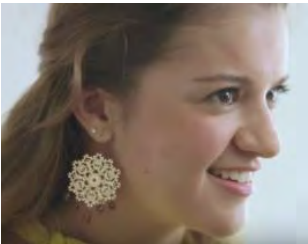

**Before proceeding to LISTENING COMPREHENSION section, please follow the [LINK](#) to watch the video.**

## ***LISTENING COMPREHANSION***

### **1. Choose the correct alternative.**

1. “The atmosphere around Google, it's definitely very \_\_\_\_\_”.
  - a. employee-centric
  - b. academic
  - c. toxic
  - d. joyful
  
2. \_\_\_\_\_ is currently working on an email notification for Google Accounts.
  - a. Paola Correa
  - b. Kim Day
  - c. Matt Malone
  
3. Grant Oakley’s code helps developers test their code and that way, the developers can \_\_\_\_\_.
  - a. have more days of paid vacation
  - b. identify and eliminate bugs early in the software development process
  - c. write good stable code for Google products
  
4. Florian Koenigsgberger: “If this is what being an intern feels like, \_\_\_\_\_.”
  - a. I’d never want to be an intern in my life
  - b. I'd love to be an intern for the rest of my life
  - c. none of the above
  
5. According to Paola Correa, the week has been quite \_\_\_\_\_.
  - a. uneventful
  - b. unstoppable, restless, a bunch of activities
  
6. Matt Malone: I'm working in the \_\_\_\_\_.
  - a. Online Help Center
  - b. Advertising Department
  
7. Interns at Google are \_\_\_\_\_.
  - a. outsiders
  - b. given much more responsibility than expected
  - c. doing the most challenging work
  
8. At Google you don't necessarily have to know everything \_\_\_\_\_.
  - a. you just need to know where to find it, when you need it
  - b. but you should know how to brainstorm
  - c. but you have to be willing to learn

**2. Watch the video again and match an intern with his / her background and reasons to join Google:**

 <p><b>FLORIAN KOENIGSBERGER</b></p>	<p>a former military</p>	<p>always wanted to work with technology</p>
 <p><b>GRANT OAKLEY</b></p>	<p>Melbourne, Florida</p>	<p>loves coding</p>
 <p><b>PAOLA CORREA</b></p>	<p>Spokane, Washington</p>	<p>is a graduate intern in Consumer Operations at Google</p>
 <p><b>MATT MALONE</b></p>	<p>New York City</p>	<p>studies advertising and marketing</p>
 <p><b>KIM DAY</b></p>	<p>the University of Miami</p>	<p>thinks that Google is more than just a tech company</p>

**3. Watch the 1<sup>st</sup> episode and complete the gaps with the missing information.**

1. You're starting your \_\_\_\_\_ this week.
2. And some \_\_\_\_\_ is not \_\_\_\_\_.

3. But we want to \_\_\_\_\_ that \_\_\_\_\_ a little bit and say \_\_\_\_\_.
4. My name's Matt Melone. I'm a \_\_\_\_\_ here at Google in \_\_\_\_\_ this summer.
5. I have a \_\_\_\_\_ as an \_\_\_\_\_ in the Army.
6. I thought \_\_\_\_\_ people on the battle ground as a \_\_\_\_\_ would be the greatest \_\_\_\_\_.
7. Then I \_\_\_\_\_ to working in \_\_\_\_\_.
8. That's where I started to \_\_\_\_\_.

**4. Watch the 2<sup>nd</sup> episode and complete the gaps with the missing information.**

1. My name's Kim Day. I'm from \_\_\_\_\_.
2. I study \_\_\_\_\_ and \_\_\_\_\_ at the \_\_\_\_\_.
3. I grew up on the \_\_\_\_\_.
4. And I always grew up watching \_\_\_\_\_ from the \_\_\_\_\_.
5. I knew that I really wanted to \_\_\_\_\_ and be able to be \_\_\_\_\_.
6. My name's Florian Koenigsberger. I'm from \_\_\_\_\_.
7. Google as a \_\_\_\_\_ to me because they are a \_\_\_\_\_ that \_\_\_\_\_ so much more than that.
8. There isn't \_\_\_\_\_.

**5. Discuss the following questions.**

1. What does the campus look like?
2. Are the interns treated differently than other employees?
3. How much responsibility do they have?
4. Does Google look like a good place to work at? Why (not)?
5. What's Googliness in your opinion?
6. What do all the interns have in common?

I'm a Google  
intern!

#GoogleInterns



## UNIT 2

# COMPUTER ARCHITECTURE

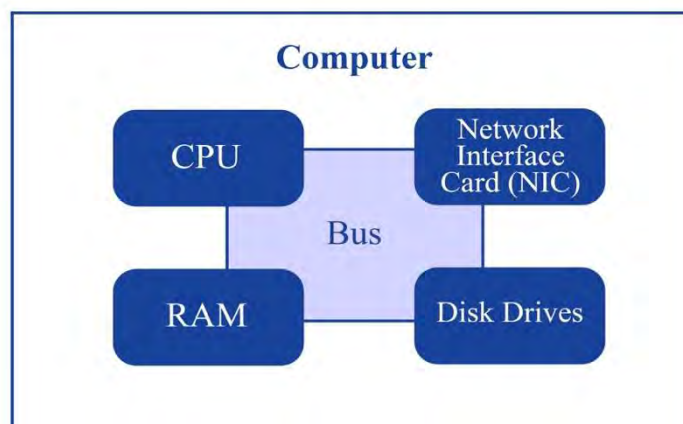
### START-UP

---

**1. Answer the questions.**

1. What computer do you use: a desktop or a laptop?
2. How does a computer help you?

**2. Look at the diagram illustrating the main components of a computer. Discuss the function of each component.**



### VOCABULARY

---

**1. Match the words with their definitions.**

- |                 |   |
|-----------------|---|
| 1) data         | a) the mechanism that handles the reading, writing, and storage of data on the hard disk  |
| 2) to store     | b) an individual picture in a sequence of images  |
| 3) to retrieve  | c) a computer program that allows easy entry and manipulation of figures, equations, and text, used esp. for financial planning and budgeting |
| 4) to process   | d) a physical case that holds all internal components of a computer   |
| 5) to browse    | e) an input device in the form of a small panel containing different touch sensitive areas  |
| 6) spreadsheet  | f) find or extract (information stored in a computer)   |
| 7) system board | g) to search for information in computer files or on the Internet, especially on the World Wide Web   |
| 8) touchpad     | h) main printed circuit board in an electronic device   |



9) enclosure

10) frame

11) hard drive

i) to keep and save information in a digital device

j) to perform mathematical and logical operations on data according to programmed instructions in order to obtain the required information

k) information in electronic form that can be stored and used by a computer

**2. Match the synonyms given below.**

1) to manipulate

2) to store

3) to browse

4) staple

5) to range

6) constraint

7) to transfer

8) crucial

9) hub

10) to ship

11) must-have

a) limitation

b) primary

c) to transmit

d) to handle

e) essential item

f) to supply

g) node

h) to surf

i) to vary

j) to save

k) important

**3. Use the words in the box to complete the sentences and make any necessary changes.**

**browse, data, ship, manipulate, must-have, range, frame, constraint, enclosure, hub**

1. Different strong passwords for all your accounts is a \_\_\_\_\_ to protect your sensitive \_\_\_\_\_.

2. Silicon Valley is a global \_\_\_\_\_ for technological innovations.

3. Before we made a decision we had spent a lot of hours \_\_\_\_\_ various websites.

4. Budget \_\_\_\_\_ have forced me to buy a less powerful laptop.

5. Most commercial USB flash drives \_\_\_\_\_ from 2 GB to 32 GB.

6. Spreadsheets are an excellent way to \_\_\_\_\_ data.

7. A computer system unit refers to the \_\_\_\_\_ that protects delicate hardware parts from the external environment.

8. Films run at constant 24 \_\_\_\_\_ per second.

9. The company will \_\_\_\_\_ its new smartphone model next month.

**4. Complete the table with the appropriate derivatives. Pay attention to the meaning of the words.**

Verb	Noun	Adjective / Participle
process		
	manipulation	

		protective
resolve		
connect		
	enclosure	
		functional
access		
	presentation	
		responsive
	solution	

**5. Complete the sentences with the appropriate derivative of the word given in capitals.**

1. Environmental \_\_\_\_\_ has been a global concern. (PROTECTIVE)
2. The results are \_\_\_\_\_ at any time by following the link provided in the e-mail.  
(ACCESS)
3. He is intelligent enough to \_\_\_\_\_ this problem. (SOLUTION)
4. We are writing in \_\_\_\_\_ to your letter of October 12, 20\_\_\_. (RESPONSIVE)
5. Much of what I do is \_\_\_\_\_ data from different sources. (MANIPULATION)
6. Please find \_\_\_\_\_ an agenda for the meeting. (ENCLOSURE)
7. The \_\_\_\_\_ to enlarge all photos is disabled here. (FUNCTIONAL)
8. With newer smartphones, screen \_\_\_\_\_ and processing power have become better. (RESOLVE)

**READING**

---

**1. Do you know what these abbreviations stand for?**

SSD, SATA, GPU, RAM, LAN, mAh.

**2. Read the text and answer the questions.**

1. What functions does a computer perform?
2. What are the main elements of a laptop?
3. How do display screens for laptops range?
4. What is the function of the top cover of the laptop?
5. What kinds of drives are installed on modern laptops?
6. What does a motherboard contain?
7. What is the main connection hub of the laptop?
8. What is a typical battery capacity range?
9. Do laptop speakers or dedicated audio devices produce better sound effect?

## A Typical Computer

A computer is an electronic device that manipulates information, or data. It has the ability to store, retrieve, and process data. You can use a computer to type documents, send email, play games, and browse the Web. You can also use it to edit or create spreadsheets, presentations, and even videos.



Since you can just shut laptops and take them anywhere with you, they have become a must-have of modern-day life. Let's look at the main components of a laptop to better understand this staple device.

A laptop screen or display is the main interactive component of a laptop. It shows all the information you need. Display screens can range in size from 9 to 17 inches. Laptops nowadays also have a different screen resolution for a different device. Usually, resolutions start from 720p and go up to 4K. A higher refresh rate screen is usually more common on gaming laptops since they allow the laptop to display higher frames per second.

The top cover of the laptop usually holds the keyboard and covers all the parts underneath its surface. The top cover acts as an enclosure for the sensitive motherboard of the laptop, protecting the laptop against dust and other elements. The enclosure also helps direct the airflow from the laptop's cooling solution, most commonly a simple fan.

The keyboard is one of the two main input components on a laptop. Like a keyboard on any other PC, it allows you to type stuff and has buttons for dozens of other functions. The laptop touchpad is the second most crucial input component on a laptop after the keyboard. It functions as a mouse for the laptop. Like everything else in life, all touchpads are not built equal. They can come with different surface finishes like plastic or metal. Depending upon how well they are designed, touchpads can offer different user experiences.

The hard drive is the main storage device on a laptop. Whenever you save something on your computer, this is the component where that information is stored. Even though hard drives are still the most common storage device, many new devices are now shipped

with another storage solution called Solid State Drives or SSDs. SSDs are much faster and a more responsive storage solution. SSDs use electronic ways to store information like a USB instead of a mechanical disc system.

The hard drive connector cable connects the hard drive to the motherboard. These cables are usually SATA (Serial Advanced Technology Attachment) cables that transfer information at really high speeds from the hard drive to the motherboard.

The system board is the main brain behind the whole operation. This is also known as the motherboard on regular PCs. The system board contains most of the electronic components that make a computer a computer. Things like processors, GPUs, RAMs are all on the motherboard. The main function of the motherboard is to connect all the different components of the laptop and act as a central power distribution point.

Memory Modules or RAM modules are the temporary storage space of a laptop. The wireless LAN module is the main connection hub of the laptop. It houses the Wi-Fi card and the Bluetooth card to provide the whole wireless connectivity of the laptop.

The battery of a laptop is the power storage device. This is what powers the laptop when you don't have it connected to a power source. A typical battery can range between 2000 mAh and 6000 mAh.

The speakers on a laptop are usually located on the bottom. Due to space constraints on a laptop, the laptop speakers will never be as good as dedicated audio solutions [22].

### **3. Read the text again and say whether these statements are true or false.**

1. Computers are mainly used for processing data.
2. A laptop screen is the main storage component on a laptop.
3. The top cover of the laptop protects the sensitive parts against dust and water.
4. Both keyboard and touchpad are two main output components.
5. The laptop touchpad allows you to type stuff.
6. SSDs are much faster and a more responsive storage solution than hard drives.
7. The motherboard acts as a central power distribution point.
8. RAM is the permanent storage space of a laptop.
9. The wireless LAN module houses things like processors, GPUs, and RAMs.
10. The battery powers the laptop when you don't have it connected to a power source.

### **4. Match the words that go together in the text.**

- |                            |                          |
|----------------------------|--------------------------|
| 1. to transfer information | a. the Web               |
| 2. to range                | b. a must-have           |
| 3. to offer different      | c. to a power source     |
| 4. to browse               | d. in size               |
| 5. to connect              | e. connectivity          |
| 6. to be more common       | f. user experience       |
| 7. to become               | g. at really high speeds |
| 8. to provide wireless     | h. on gaming laptops     |

5. Make two sentences with any word combinations from Exercise 4

6. Develop the ideas about a Typical Computer with the help of the Mind Map. Follow the [LINK](#).

7. Make a short summary of the text.

## LANGUAGE FOCUS

---

### QUESTION TYPES

Consult grammar rule using the [LINK](#).

1. Match the question with the appropriate answer and comment on the question type.

1. Is RAM cleared completely when the computer system shuts down?	a. Actually, it does.
2. What devices does the computer system use to display information?	b. Yes, they are.
3. Does the CPU handle instructions?	c. I suppose, octa-core processors are more common.
4. Processors are becoming more and more powerful, aren't they?	d. It's any input device.
5. Are dual-core or octa-core processors more common?	e. Because Apple teams collaborate with each other.
6. What piece of computer hardware is used to provide data into the system?	f. Yes, it is.
7. Why do all the components of iPhone work together efficiently and beautifully?	g. There is main memory consisting of ROM and RAM and backing stores which can be internal, eg. a hard disk or SSD, or external, eg. a USB flash drive.
8. Can you tell me what types of storage a computer uses?	h. These are output devices.

2. Arrange the words in the correct order to make questions.

1. What / used / devices / to input / are / sound?
2. A keyboard / input / an automatic / is / or / device / manual?
3. You / back up / how often / your / important / do / data?
4. Retains / of memory / its data / what kind?
5. Inputs / are / outputs / both / and / touchscreens / aren't they?
6. Contain / processor / does / quad-core / or / your computer / octo-core?
7. Did / the first / appear / when / microprocessor?

8. Smartphones /a phone screen / what / use / do / technology / to unlock?
9. Are / for / storage / used / what / devices?
10. When / return / to Apple / did / Steve Jobs?

**3. Rewrite the sentences as General questions.**

1. Microsoft is doing research in the field of intelligent search tools.
2. The invention of the computer has had a huge impact on our day-to-day lives.
3. The internal storage of a computer can use a Solid State Drive (SSD).
4. Scanners are often incorporated into printers.
5. The iPhone started the internet-connected, portable computing age we live in now.
6. The Apple Watch quickly became the most popular smartwatch on the market.
7. There are two main components to every processor.
8. With Windows10 you'll view up to four apps and all open tasks at one time.

**4. Add a tag to each sentence.**

1. You can operate your ultrabook remotely from your smartphone, \_\_\_\_\_?
2. 3D camera delivers more natural 3D vision in video calls, \_\_\_\_\_?
3. With the new laptop users get multitouch display options, \_\_\_\_\_?
4. Technology has changed significantly since the early days of the Internet, \_\_\_\_\_?
5. Organizations around the world are transforming for the digital era, \_\_\_\_\_?
6. A desktop computer isn't portable, \_\_\_\_\_?
7. The advanced Face ID will allow you to unlock your iPhone with a glance, \_\_\_\_\_?
8. Max bought a genuine Apple power adapter, \_\_\_\_\_?
9. You have to upgrade your Mac to the latest macOS, \_\_\_\_\_?
10. CPUs aren't only found in desktop or laptop computers, \_\_\_\_\_?

**5. Arrange the words in the correct order to make direct questions.**

1. what / have / computer / do / type / you?
2. it / have / Touch ID / does?
3. type / what / processor / it / does / have?
4. are / cores / there / how many?
5. what size /of/ memory / does / random / access / it / have?
6. type / is / hard / the / disk / what?
7. what / the hard disk / is /of/ the capacity?
8. big / the / monitor (display) / is / how?
9. monitor / does / have / what / it / kind?
10. there / microphone / built-in / is / a / camera / or / in your computer?
11. your laptop / have / a wireless / does / LAN module?
12. work / recharging / your laptop / how long / without / does?

**6. Work with your partner. Practice asking indirect questions based on direct ones from Exercise 5. Find out information about your partner's computer technical features.**

**Follow the model:**

**Direct question:** - *What computer type do you have?*

**Indirect question:** - *I am wondering what computer type you have?*

**Answer:** - *I have a laptop.*

**Useful language:**

I'm trying to find out (if / whether) .....

I'd like to know (if / whether) .....

Could you tell me (if / whether) .....

I wonder (if / whether) .....

I'm wondering (if / whether) .....

Do you think you could tell me (if / whether).....

**7. Work with your partner. Make indirect questions using the prompts in brackets. Answer the questions.**

1. Is ROM volatile or non-volatile type of memory? (I wonder if ...)
2. How often do you back up data? (Could you tell me ...)
3. How long will RAM hold data? (Do you know ...)
4. When did two Stanford Ph.D. students launch Google? (Have you any idea ...)
5. What Google product do people use to find their way? (Can you tell me ...)
6. What is the boot time of your PC? (Can you tell me ...)
7. What kind of processor do you have in your computer? (I wonder...)
8. Can phone makers modify Android in any way they want? (Have you any idea if ...)

**8. Think of the questions to the following sentences.**

1. The most common manual input devices are the keyboard and mouse. (What?, Alternative question, Tag question)
2. Apple created the app revolution with the launch of the AppStore in 2008. (General question, What?, When?)
3. RAM is made up of small memory chips. (What?, What?, Tag question)
4. A program gets loaded from the hard drive into the RAM. (General question, Where?, Tag question)
5. Pavel deleted some video files to free up storage space for new data. (Who?, Why?, Tag question)
6. Memory sticks can hold large quantities of data. (General question, What?, Alternative question)

7. CPUs with multiple cores have more power to run multiple programs at the same time. (What kind of?, General question, Tag question)

8. AirPods deliver an industry-leading 5 hours of listening time on one charge. (General question, How many?, Alternative question)

9. The new Apple campus will be powered by 100 percent renewable energy. (General question, What?, Tag question)

10. Apple Watch has empowered people with more information about their health. (General question, What?, What kind of?)

## SPEAKING

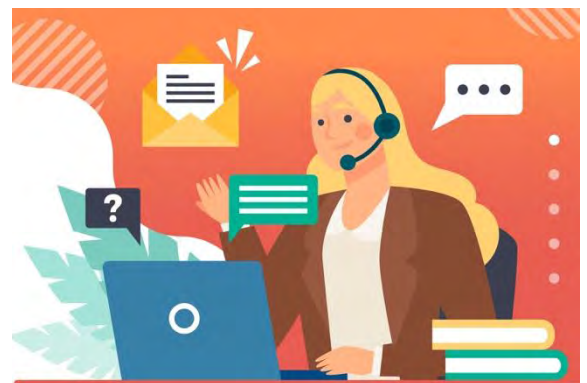
---

### *Telephoning in English: Making Inquiries*

Making an *inquiry* means that you want to ask a question, or questions, to get information.

When you are trying to get information from somebody it's very important to be tactful, so people will be more willing to help you. When asking for information, it's polite to use indirect questions.

Indirect questions serve the same purpose as direct questions, but are considered more formal. When using an indirect question, use an introductory phrase followed by the question itself in a positive sentence structure.



***Compare this direct question with the same question formed indirectly:***

**Direct question:** *What is your telephone number?*

**Indirect question:** *Could you tell me what your telephone number is?*

#### **1. Match the words and word combinations with the definitions.**

1. to make up one's mind

2. curious

3. frame

4. to deliver

5. accuracy

6. discount

a. to take, bring goods to people's house or places of work

b. a reduction in the usual price

c. to decide

d. the ability to do something without mistakes

e. interested in learning about people or things around you

f. one of the many separate photographs that a cinema film consists of



**2. First, read through the dialogue between Nick, a salesperson, and a customer. Next, choose the indirect questions for making inquiries.**

**Nick:** Hello, Digital Solutions, Nick speaking. How may I help you?

**Customer:** Hello, I'd like to ask a few questions about Canon cameras.

**Nick:** Yes, certainly. Could you tell me which model you have in mind?

**Customer:** Oh, I haven't made up my mind yet. I work for an advertising agency and I'm interested in professional cameras.

**Nick:** I see. I'm glad to help you with that. I'd like to offer you Canon EOS R5 model. It's a professional mirrorless camera that captures 45 megapixel photos up to 20 frames per second.

**Customer:** Great. I'm wondering what kind of autofocus this camera has?

**Nick:** The autofocus is programmed using a deep-learning AI. This enables the camera to recognize and track a subject's face and eyes with new levels of accuracy.

**Customer:** Thank you very much. I'm just curious about the price.

**Nick:** Certainly. This model costs 3500 \$.

**Customer:** Oh. This is a little over our budget.

**Nick:** Yes, it does appear expensive but we can offer you a special discount of 10% if you place an order before next Monday.

**Customer:** That would be perfect. Thank you so much.

**Nick:** Is there anything else I can help you with?

**Customer:** Yes. Do you think you could tell me when you'd be able to deliver it if we place an order today?

**Nick:** Certainly. May I call you back with this information?

**Customer:** Sure. Thanks.

**Nick:** You're welcome, goodbye and have a nice day.

**3. Decide whether the following statements are true or false based on the dialogue.**

1. This is an informal request for help.
2. The sales person sounds abrupt, or even rude.
3. The customer has already chosen the camera model.
4. The salesperson offers a mirrorless pro camera.
5. The camera is provided with deep-learning AI features.
6. The camera allows you to capture very low-resolution images.
7. The camera is out of customer's price range.
8. The sales person can offer a discount if the customer places an order next Monday.
9. The customer is not willing to place an order.

#### 4. Complete the missing information.

1. Good morning, W&W, Alice \_\_\_\_\_.
2. How may I \_\_\_\_\_ you?
3. I'd like to ask a few \_\_\_\_\_.
4. I haven't \_\_\_\_\_ up my mind yet.
5. I'm \_\_\_\_\_ if you could \_\_\_\_\_ me some information about the flight.
6. Do you \_\_\_\_\_ you could tell me about the camera's features?
7. I'm just \_\_\_\_\_ about the price.
8. This is a little over our \_\_\_\_\_.
9. That would be \_\_\_\_\_.
10. May I \_\_\_\_\_ you back with this information?



#### Role-play 1

Here is a role play for you to use in practicing your making calls in English.

#### Student A:

You need to purchase six new desktop computers for your office. Call HT Systems and ask for the following information:

- Current special offers on computers
- Computer configuration (CPU, RAM, Video card, Hard Drive)
- Guaranty
- Possibility of discount for an order of six computers

#### Student B:

You work at HT Systems. Answer student A's questions using the following information:

- Two special offers:
  1. A computer with AMD Ryzen 5 3600 CPU, 6 cores, 16 GB of DDR4 RAM type, 1000 GB of SSD, NVIDIA GeForce RTX 3060Ti video card, Windows 11 included - \$1,900
  2. A computer with Intel core i5 11400F CPU, 6 cores, 32 GB of DDR4 RAM type, 1000 GB of SSD, NVIDIA GeForce RTX 3060Ti video card, OS is not included - \$2,300
- 1 year guaranty on all computers
- Discount of 5% for orders of more than five computers



#### Role-play 2

Here is a role play for you to use in practicing your making calls in English.

#### Student A:

You need to purchase six new laptop computers for your office. Call HT Systems and ask for the following information:

- Current special offers on laptops
- Computer configuration (CPU, RAM, Video card, Screen (size, resolution) Hard Drive)
- Guaranty
- Possibility of discount for an order of six computers

**Student B:**

You work at HT Systems. Answer student A's questions using the following information:

- Two special offers:
  1. Asus ZenBook with Intel Core i7 10870H CPU, 6 cores, 16 GB of DDR4 RAM type, 1000 GB of SSD, NVIDIA GeForce RTX 1650TiMax-Q 4GB video card, 15.6 inch monitor, 3840\*2160, Windows 10 included - \$2,000
  2. Lenovo Idea Pad 5Pro with Intel core i7 11370H CPU, 4 cores, 16 GB of DDR4 RAM type, 1000 GB of SSD, NVIDIA GeForce MX450 2GB video card, 16 inch monitor, 2560\*1600, Windows 11 included - \$1,800
- 1 year guaranty on all computers
- Discount of 5% for orders of more than five computers.

**WRITING 1**

---

*An Expression of Interest (Inquiry Email)*

Learn how to write an email to ask for more information and express interest.

**Preparation task**

**1. Match the words with the definitions.**

1. funding /a grant	a. a place to stay when you travel somewhere
2. deadline	b. to say officially that you want to do something
3. accommodation	c. the cost of a class or course
4. to express (one's) interest	d. the day or time when something must be finished
5. to apply	e. money you spend when you go to another city or country
6. travel expenses	f. to ask for something, especially by completing a form
7. tuition fees	g. money that is given by a government, university or organization to help you do something, e.g. study or travel

## 2. Read the travel grant advertisement and the inquiry email to ask for more information. Then discuss the tips and do the exercises.

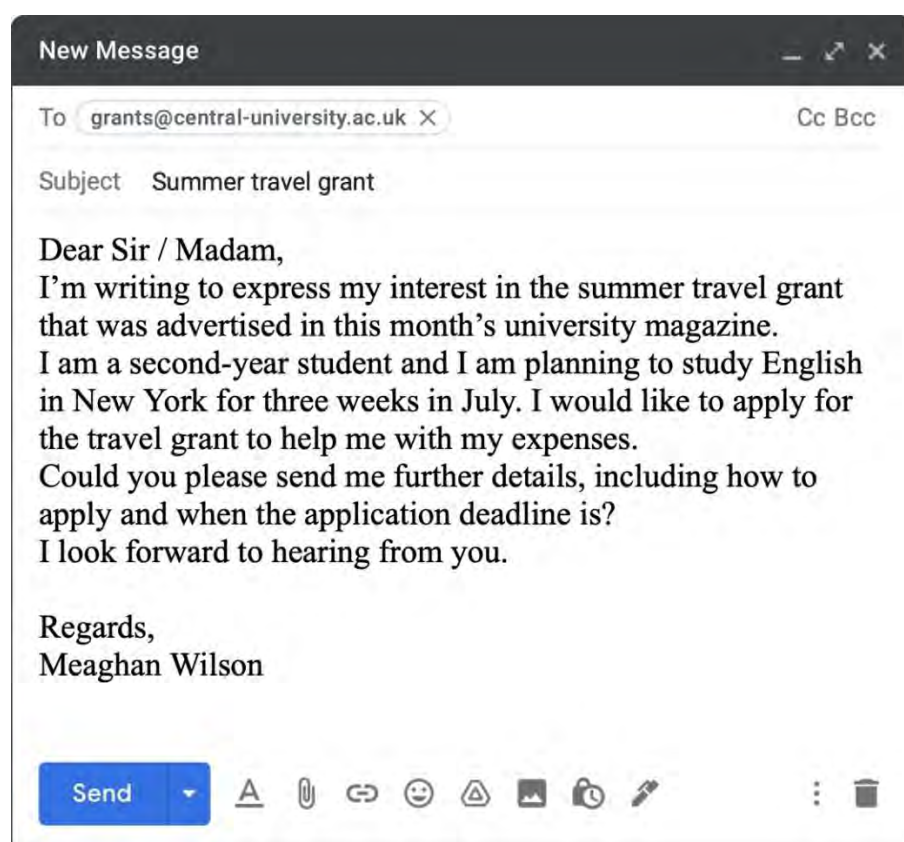
### Advertisement

Are you a first-year or second-year student at Central University? Would you like to learn a language this summer?

Central University offers funding of up to £800 each for five students to go overseas and study English, Spanish, French, German or Chinese. You can use the grant to pay for accommodation, travel expenses and tuition fees.

For more information, email [grants@central-university.ac.uk](mailto:grants@central-university.ac.uk). Courses must be full time in July or August and for a minimum of two weeks.

### Inquiry e-mail



### Tips

1. If you don't know the person's name when writing a formal email, you can start it **Dear Sir / Madam**.
2. Your email should have three short main paragraphs:
3. What you are interested in
4. Why you're interested
5. Any questions you have.
6. **I look forward to hearing from you** is a good way to close an email if you want a reply.

7. **Regards** is a semi-formal, respectful way to end an email. It is common in professional emails too.

**3. Are the sentences true or false?**

1. Any student can apply for the grant.
2. The grant is for learning any language.
3. The grant is for full-time courses only.
4. The style of the email is informal.
5. Meaghan wants to know more about how to apply.
6. Meaghan already knows when the deadline is.

**4. Match the sentences (a–f) to the parts of the email (1–6).**

Parts of the email	Sentences
1. Email subject	a. Could you please send me ...?
2. Opening greeting	b. Summer travel grant
3. Reason for writing	c. I look forward to hearing from you.
4. Questions	d. Regards,
5. Closing phrase	e. I'm writing to express my interest in ...
6. Sign off / Ending	f. Dear Sir / Madam,

**5. Fill in the gaps with the correct word.**

Dear Sir /(1) \_\_\_\_\_ ,  
 I'm writing to (2) \_\_\_\_\_ my interest in a travel grant.  
 I am planning to (3) \_\_\_\_\_ Chinese for one month in Beijing and I (4) \_\_\_\_\_ like to apply for the travel grant to help with the expenses. (5) \_\_\_\_\_ you please send me further details?  
 I look (6) \_\_\_\_\_ to hearing from you.

Best Regards,  
 Jordan Lee

**6. Write an email to ask for more information or express interest.**

**Situation:** You're a university student from Belarus. You want to improve your level of English in the UK language school this summer. You're hoping to come over in August. Write an email to ask for more information concerning the language course that helps with essay writing skills. Inquire about the number of hours per week there are the course, what sort of accommodation and what out-of-class activities they offer. The person you're writing to is Mr. Jones.

## WRITING 2

### *Business Inquiry (Enquiry)*

Businesses often write letters or emails to request samples, prices, or other information. They are referred to as an inquiry (enquiry) or request. To ensure receiving the needed information as quickly as possible, they make certain that every request letter is reasonable, specific, brief and polite.

#### 1. Study the vocabulary given below for writing an inquiry email.

1. enquiry (= inquiry, request) for / about	запрос
2. quotation (quote v.)	предложение <i>цены</i> (назначать, предлагать)
3. delivery time	сроки поставки
4. terms of payment	условия платежа
5. prompt <i>adj.</i>	немедленный
6. competitive <i>adj.</i>	конкурентоспособный
7. discount <i>n</i>	скидка
8. requirements	потребности, требования
9. item <i>n.</i>	позиция, наименование товара
10. order <i>n</i>	заказ
11. purchase <i>n</i>	покупка, закупка
12. c.i.f. (cost, insurance, freight), Southampton	СИФ (стоимость, страхование, фрахт), порт Саутхэмптон

#### 2. Study the letter below. Find words and parts of sentences which prove it is an inquiry.

British Perfumery Inc.  
25 Palms Str.  
Southampton 87 RT  
UK

Dear Sirs,

We have seen your advertisement in the Vogue, and would be grateful if you would kindly send us details of your perfumery.

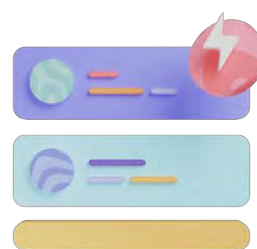
Please quote us for the supply of the items listed on the enclosed enquiry form, giving your prices c.i.f. Southampton. Will you please also indicate delivery time, your terms of payment, and details of discounts for regular purchases and large orders.

Our annual requirements for perfumes are considerable, and we will be able to place substantial orders with you if your prices are competitive and your deliveries are prompt. We look forward to receiving your quotation.

Yours faithfully,  
Frank Grim

**3. Below is a common paragraph structure for an inquiry:**

1. how you got the contact
2. something about your company
3. general request for information
4. other specific questions
5. closing including appreciation for granting the request and, perhaps reference to future business



**4. Write the correct paragraph reference next to each sentence of an inquiry.**

a) We are a distributor of kitchen products in Hungary. We are interested in ...	<i>paragraph 2</i>
b) I look forward to an early reply, and am sure that there is a market for your products here in Hungary.	...
c) Please send us information about your product range, including a price list	...
d) We met last Thursday on your stand at the Munich Trade Fair.	...
e) Could you also provide details of your delivery times, and whether there is any minimum order.	...

**5. Put the paragraphs below in the correct order to restore the email.**

- a) We are a Turkish company exporting to the EU, and need a firm of lawyers in France to represent us on some legal matters.
- b) In particular, we would like to know your experience in dealing with disputes between companies involved in import/export.
- c) I am emailing you off your website, which I found through Google.
- d) An early reply would be greatly appreciated.
- e) We would be grateful for some information about the legal services that your firm offers.

**6. Decide whether the sentences below are used in the beginning or ending of the main body of an inquiry. Translate them into Russian.**

1. Your name has been given us by the British Chamber of Commerce.
2. We are looking forward to hearing from you.
3. Since the season will soon be under way we must ask you to reply by the end of this month.
4. We saw your products demonstrated at the Oslo Fair earlier this year, and would like to know whether ...
5. We have seen your advertisement in this month's issue of the magazine states that you can offer a wide range of watches.
6. We would appreciate a prompt answer.

7. Messrs.\* Gordons and Tatcher of Kent, Ohio who we understand have been doing business with you for some years, inform us that you may be able to supply us with ...

8. We hope to hear from you shortly.

9. As our own customers are processing us for a quotation, we hope you will be able to make us an offer within a fortnight from today's date.

\* *Messrs.* – plural of *Mr.*

**7. Fill in the gaps in the sentences below with the words from the box. Use the dictionary if necessary:**

**steady demand, high quality, fancy goods, expensive models, count on a brisk turnover, prompt deliveries, current export, price list**

1. There is \_\_\_\_\_ here for \_\_\_\_\_ watches you manufacture.

2. These \_\_\_\_\_ are in demand during the tourist season, but for the rest of the year sales are moderate, and often rather low.

3. There is no market here for articles of this type in the higher price range, but less \_\_\_\_\_ sell very well throughout the year.

4. You can \_\_\_\_\_ if prices are competitive and deliveries are \_\_\_\_\_.

5. We would be glad to receive specifications of your new items, together with your \_\_\_\_\_ and detail of trade discounts.

**Here are some more useful expressions that can be used for a request (inquiry):**

- be interested in buying some goods	интересоваться закупкой какого-либо товара
- be in the market for some goods	
- require some goods urgently	испытывать потребность в срочном приобретении товара
- be in urgent need of some goods	
- be regular buyers	быть постоянными покупателями
- be potential buyers	быть потенциальными покупателями
- be prospective buyers	быть перспективными покупателями
- keen (competitive, realistic, reasonable) price for smth	хорошая (конкурентоспособная, реальная, разумная) цена на ч.-л.

**8. Translate into English.**

1. Укажите, пожалуйста, цены на условиях СИФ Саутхэмптон на следующие товары в количествах, указываемых в нашем письме.

2. Направьте нам, пожалуйста, Ваши каталоги и прейскурант на компьютерную технику.

3. Мы также бы хотели узнать условия платежа и скидки, которые вы предлагаете за регулярные закупки и большие заказы.

4. Можете ли вы гарантировать поставку в течение трех недель?



5. Мы надеемся получить 5% скидку или приемлемую цену на указанные позиции.

6. Если качество будет хорошим, а цена конкурентоспособной, мы считаем, что можем обещать Вам хорошие результаты.

7. Мы хотели бы узнать, не могли бы вы предоставить нам особую скидку.

8. Просим дать вашу цену на условиях сиф Ливерпуль.

**9. Write the inquiries using the outlines in Russian and some words and word expressions in English below.**

1) Мы увидели ваш (товар, стенд, экспозицию, выставку) на (Торговой ярмарке, Выставке автомобилей, мебели, дизайна) и хотели бы, чтобы вы прислали нам (модели, образцы) товара.

С уважением, ...

*product, stand-display, exhibition, patterns, samples, Trade Fair, Motor Show ...*

2) Уважаемые господа!

Мы будем вам очень признательны, если вы пришлете нам каталог ... (товар), чтобы дать нам возможность показать нашим заказчикам самые новейшие...

С уважением, ...

*be obliged, enable, customers*

3) (Физ. лицо и фирма) предоставила нам ваше имя, и мы будем очень признательны, если вы сообщите нам, пользуются ли они / он хорошей репутацией и следует ли ему / им предоставлять кредит на ... (сумму).

Можете быть уверены, что любая информация, которую вы нам предоставите, будет использована строго конфиденциально.

С уважением, ...

*appreciate, advise, good repute, be treated in the strictest confidence*

4) Уважаемые господа!

Во время пребывания в ... (город) 2 недели назад, я посетил ... (выставку), где мне очень понравился ... (товар), который демонстрировался на вашем стенде.

Я прилагаю список наименований, которые мне требуются, и был бы очень рад получить ваше предложение как можно скорее. Я также хотел бы получить полную информацию, касающуюся экспортных цен, условий платежа, самого раннего срока поставки и скидки для постоянных покупателей.

Моя компания интересуется всеми типами ... (товар), и если у вас есть другие изделия, мы хотели бы получить дополнительную информацию о них.

С уважением, ...

*be most impressed with, enclose, require, receive one's quotation, to receive details*

5) Уважаемый господин Джексон!

Мы с удовольствием сообщаем вам, что намереваемся купить большое количество ... (товар) в течение ... (срок).

Просим вас представить предложения на обычные сорта товара и сообщить об имеющемся в наличии количестве товара и примерное время поставки.

С нетерпением ждем вашего быстрого ответа.

С уважением, ...

*be pleased to advise, be in the market for, substantial quantities, submit of*

**10. Write an inquiry on your own using the vocabulary from the unit and the guidelines below:**

- your letter is for Sales Manager of the company manufacturing watches;
- refer to their ad in the magazine "THE BEST GOODS" and inform them you have known they launched a new collection of the watches into the market;
- ask for the catalogue of the watch collection and the price list;
- you want the reply as soon as possible.

## LISTENING

---

### *How Computers Work: Hardware & Software*

#### **SETTING THE CONTEXT**

1. What four basic things do all computers perform?
2. What computer parts are responsible for these four basic things?

#### **ACTIVATING VOCABULARY**

**Match the words with the definitions. Give their Russian equivalents.**

1. bunch	a. to choose, to select
2. to handle	b. a small part or amount of something
3. to fetch	c. a number of things of the same type fastened together or in a close group
4. sequence	d. based on only two numbers
5. circuit	e. to control or operate, to run
6. binary	f. a series of related things or events, or the order in which they happen
7. fraction	g. very small, microscopic
8. tiny	h. a closed system of wires or pipes through which electricity or liquid can flow

**Before proceeding to LISTENING COMPREHENSION section, please follow the [LINK](#) to watch the video.**

***LISTENING COMPREHENSION***

**1. Choose the best option.**

1. The CPU is \_\_\_\_\_.
  - a. the master program
  - b. the master chip
  - c. the master wire
2. The CPU understands \_\_\_\_\_.
  - a. English
  - b. high-level commands
  - c. binary code
3. Software is \_\_\_\_\_.
  - a. a series of commands
  - b. a number of circuits
  - c. a variety of chips
4. Today's software is written \_\_\_\_\_.
  - a. in binary
  - b. in programming languages
  - c. in English
5. Binary code is \_\_\_\_\_.
  - a. the sequence of ones and zeros
  - b. the sequence of On and Off electrical signals
  - c. All above
6. The software that tells the CPU which program to run is \_\_\_\_\_.
  - a. a programming language
  - b. a special application
  - c. an operating system
7. The operating system \_\_\_\_\_.
  - a. controls the other software on the computer
  - b. quickly switches between programs
  - c. All above

**2. Match the words that go together in the video.**

1. to execute commands	a. of a second
2. a bunch	b. multiple pieces of software
3. to handle	c. in sequence
4. to browse	d. of circuits
5. to run	e. with a friend
6. for fraction	f. specific tasks
7. to chat	g. the web

**3. Watch the 2<sup>nd</sup> part of the video and complete the missing information:**

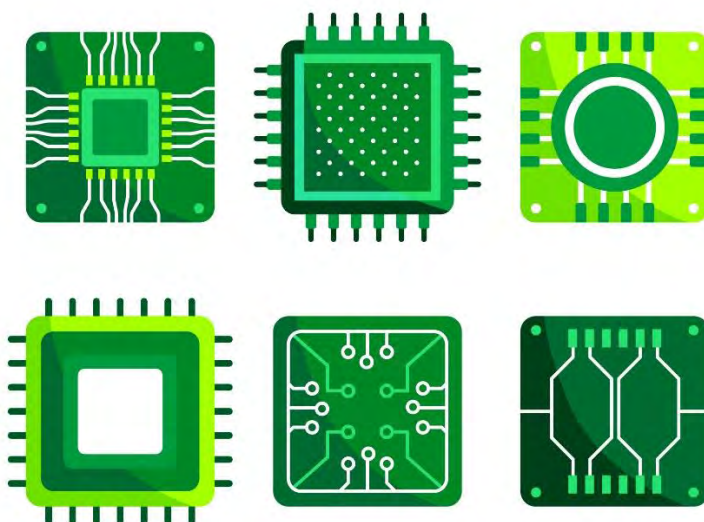
1. The operating system of the computer is the \_\_\_\_\_ that \_\_\_\_\_ how \_\_\_\_\_ gets to use the \_\_\_\_\_ of the computer.
2. For example, I helped \_\_\_\_\_ the \_\_\_\_\_ that \_\_\_\_\_ on most \_\_\_\_\_.
3. The operating system is a program with \_\_\_\_\_ that let it \_\_\_\_\_ the other \_\_\_\_\_ on the computer.
4. It lets you \_\_\_\_\_ new programs by \_\_\_\_\_ them into your \_\_\_\_\_.
5. It decides when a program \_\_\_\_\_ by the \_\_\_\_\_, and whether that program can \_\_\_\_\_ the computer's \_\_\_\_\_ and \_\_\_\_\_.
6. And when you think your computer \_\_\_\_\_ many programs \_\_\_\_\_, in reality, it's the \_\_\_\_\_ that's quickly \_\_\_\_\_ between programs sharing that \_\_\_\_\_ for \_\_\_\_\_ of a second.
7. \_\_\_\_\_ every computer there's an \_\_\_\_\_ managing \_\_\_\_\_ that \_\_\_\_\_ the \_\_\_\_\_.
8. The software is a \_\_\_\_\_ of \_\_\_\_\_ made of \_\_\_\_\_, and that \_\_\_\_\_ is just \_\_\_\_\_ flowing through billions of \_\_\_\_\_.

**4. Watch the video again and answer the following questions.**

1. What can you see inside a computing device?
2. What kinds of software are there?
3. What's the CPU's job?
4. What handles specific tasks inside the CPU?
5. What is the real magic of the CPU?
6. Which programming languages are mentioned in the video?
7. What did Bill Gates help create?
8. How do programmers make the computers smart and useful?

**5. Make a plan that outlines the main points of the video.**

**6. Summarize the main content of the video in 10-12 sentences using the plan.**



## UNIT 3

### MOBILE DEVICES

#### START-UP

---

##### 1. Answer the questions.

1. Do you think a good modern smartphone can function as a computer?
2. What are the most important features that you take into consideration when choosing a portable device?



#### VOCABULARY

---

##### 1. Match the words with their definitions.

- |                     |  |
|---------------------|--|
| 1) wearable device  | a) the remote detection and measurement of a human or animal function, activity or condition (such as heart rate or body temperature)  |
| 2) to synchronize   | b) a device like a pen with which you can input written text directly into a computer  |
| 3) extension        | c) a message that is automatically sent to you on your mobile phone or computer  |
| 4) biotelemetry     | d) electronic device that contain computer technology and is designed to be worn on the body   |
| 5) notification     | e) lengthening, stretching out, or enlarging the scope of something  |
| 6) stylus           | f) to occur at the same time or coincide or agree in time  |
| 7) flash memory     | g) a headset that provides a two-way connection to the user's cellphone via Bluetooth  |
| 8) cloud storage    | h) a technology that allows computers, mobile phones and other devices to communicate with each other without being connected by wires |
| 9) wireless headset | i) an electronic (solid-state) non-volatile computer storage medium that can be electrically erased and reprogrammed                   |
| 10) Bluetooth       | j) a model of computer data storage in which the digital data is stored in logical pools   |

**2. Match the synonyms given below.**

- |                 |                   |
|-----------------|-------------------|
| 1) broad        | a) cordless       |
| 2) to replace   | b) to integrate   |
| 3) remotely     | c) characteristic |
| 4) handheld     | d) wide           |
| 5) to combine   | e) distantly      |
| 6) intermediate | f) to produce     |
| 7) to generate  | g) portable       |
| 8) feature      | h) to displace    |
| 9) external     | i) medium         |
| 10) wireless    | j) outer          |

**3. Use the words in the box to complete the sentences and make any necessary changes.**

**intermediate, wearable device, handheld, extension, notification, wireless, displace**

1. Every co-working space will always have basics like \_\_\_\_\_ Internet access, printers, some type of conference room, etc.
2. How can I stop random Twitter \_\_\_\_\_?
3. Fitness trackers are \_\_\_\_\_ that can help you move more, sleep better, and improve your overall health.
4. \_\_\_\_\_ devices increasingly use touch screen interface.
5. There are three levels of difficulty in this game: low, \_\_\_\_\_, and high.
6. Compact discs \_\_\_\_\_ records in the late 1980s.
7. The boss is refusing to let us have any \_\_\_\_\_ on the deadline for this job.

**4. Complete the table with the appropriate derivatives. Pay attention to the meaning of the words.**

Verb	Noun	Adjective / Participle
extend		
	function	
enable		
		descriptive
define		
	comparison	
		wearable
communicate		
		collective
	variety	

**5. Complete the sentences with the appropriate derivative of the word given in capitals.**

1. Researchers describe it as an \_\_\_\_\_ technology. (ENABLE)
2. Her knowledge of the subject is \_\_\_\_\_. (EXTEND)
3. With no phone or radio equipment, they had no means of \_\_\_\_\_  
(COMMUNICATE)
4. We disputed with each other on \_\_\_\_\_ issues. (VARIETY)
5. The landlord came around to \_\_\_\_\_ the month's rent. (COLLECTIVE)
6. The catalogue gives a full \_\_\_\_\_ of each product. (DESCRIPTIVE)
7. I'm hardly \_\_\_\_\_ if I don't get eight hours' sleep! (FUNCTION)
8. Please \_\_\_\_\_ trainers in the gym, to avoid scuffing the floor. (WEARABLE)

## READING

---

**1. Read the text and answer the questions.**

1. What capabilities do various mobile devices provide?
2. What is a mobile device?
3. What devices are included in the category of mobile devices?
4. What does a smartphone combine?
5. What is a tablet computer?
6. What features does a tablet include?
7. What features does a tablet include compared to a laptop?
8. What is a smartwatch?
9. What features does a smartwatch include?
10. What wireless technologies does a smartwatch support?
11. What external devices may a smartwatch communicate with?

### Modern Mobile Devices

Today's mobile devices are multifunctional devices capable of hosting a broad range of applications for both business and consumer use. Smartphones and tablets enable people to use their mobile device to access the Internet for email, instant messaging, text messaging and Web browsing, as well as work documents, contact lists and more.

Mobile devices are often seen as an extension to your own PC or laptop, and in some cases newer, more powerful mobile devices can even completely replace PCs. And when the devices are used together, work done remotely on a mobile device can be synchronized with PCs to reflect changes and new information while away from the computer.

### Types of Mobile Computing Devices

The term mobile device refers to a wide range of consumer electronics. Mobile device typically is used to describe portable devices that can connect to the Internet. However, some also classify connected digital cameras and standard MP3 players as

mobile devices as well. The category of mobile devices includes the following devices, as well as others:

### **Smartphones**

Smartphones combine a mobile phone and a handheld computer into a single device. Smartphones allow users to access and store information and install applications while also being able to use a mobile phone in one device.

### **Tablet PCs**

A tablet computer is a computer that is intermediate in size between a laptop and a smartphone. Early tablet computers used either a keyboard or a stylus to input information, but these methods were subsequently displaced by touch screens.

Nearly all tablet computers can access the Internet using Wi-Fi, and many can use mobile phone networks like 2G, 3G, and 4G. Like smartphones, many tablets have sensors including a camera and a microphone. Other features of tablets include high definition, anti-glare displays, a Bluetooth radio (to connect to printers and other devices), flash memory, and cloud storage facilities to back up and synchronize data. Compared to laptop computers, tablets are lighter, more portable, have longer battery life, generate less heat, and don't need a mouse or keyboard to be connected. Typing is usually done on the touch screen with a "virtual" keyboard which appears on the screen. Most tablets allow the user to get notifications even when the tablet is powered off or on standby.



### **Smartwatches**

A smartwatch is a wearable computer in the form of a wristwatch; modern smartwatches provide a local touchscreen interface for daily use, while an associated smartphone app provides management and biotelemetry. Some smartwatches function as portable media players, with FM radio and playback of digital audio and video files via a Bluetooth headset. Some models, called 'watch phones' (or vice versa), have mobile cellular functionality like making calls.

The watch may communicate with external devices such as sensors, wireless headsets, or a heads-up display. Like other computers, a smartwatch may collect information from internal or external sensors and it may control, or retrieve data from, other instruments or computers. It may support wireless technologies such as Bluetooth, Wi-Fi, and GPS. For many purposes, a "watch computer" serves as a front end for a remote system such as a smartphone, communicating with the smartphone using various wireless technologies [28].



**2. Read the text again and say whether these statements are true or false.**

1. Modern mobile devices are multifunctional.
2. The term 'mobile device' refers only to smartphones.
3. Smartphones combine a mobile phone and a computer into a single device.
4. Tablet PCs have always been equipped with touchscreens.
5. Tablet PCs have smaller weight, longer battery life and generate less heat.
6. Smartwatches function as wearable computers.
7. A smartwatch is only used for long-term biomonitoring.
8. A smartwatch can collect information from internal or external sensors.

**3. Match the words that go together in the text.**

- |                           |                                      |
|---------------------------|--------------------------------------|
| 1. instant                | a. devices                           |
| 2. to have mobile         | b. from internal or external sensors |
| 3. multifunctional        | c. with a PC                         |
| 4. anti-glare             | d. data                              |
| 5. to collect information | e. messaging                         |
| 6. to use mobile          | f. storage facilities                |
| 7. to be synchronized     | g. display                           |
| 8. cloud                  | h. battery life                      |
| 9. to retrieve            | i. cellular functionality            |
| 10. to have longer        | j. phone networks                    |

**4. Make two sentences with any word combinations from Exercise 3.**

**5. Complete the sentences with a correct word or word combination from the box.**

**synchronize, remotely, anti-glare, cloud storage, instant messaging, battery life, cellular, retrieve, display, integrate**

1. I finally managed to \_\_\_\_ the deleted data.
2. Like previous \_\_\_\_ networks, 5G relies on signals carried out by radio waves.
3. We need to develop an online shopping app and \_\_\_\_ it into our website.
4. This model has 10.1 inch diagonal, \_\_\_\_ widescreen LED \_\_\_\_, up to 8,5 hours of \_\_\_\_, a webcam and multiple connectivity options.
5. The phone lets you \_\_\_\_ your calendar and contacts with your PC.
6. With your account you get 15GB of free \_\_\_\_.
7. Skype and Teams are similar, both including \_\_\_\_, voice and video communications.
8. More work nowadays can be conducted \_\_\_\_.

**6. Discuss the ways you use your mobile phone. Add two more uses to the table. Tell your groupmates about your preferences.**

**Example:** - Most frequently I use my smartphone for ...  
Next I use it for ...

Use	Ranking
Taking photos	1.
Checking e-mail	2.
Using social media websites / apps	3.
Making calls to friends / family	4.
Looking up information on the Internet	5.
	6.
	7.

**7. Develop the ideas about Mobile Devices with the help of the Mind Map. Follow the LINK.**

**8. Make a short summary of the text.**

## LANGUAGE FOCUS

---

### THERE IS / THERE ARE

### INDEFINITE PRONOUNS

Consult grammar rule using the LINK.

**1. Complete the sentences using the correct form of there is / there are, there was / there were, there will be.**

- \_\_\_\_\_ many tablet manufacturers like Google Pixel, Samsung Galaxy Tab, Nexus, and Apple iPad.
- \_\_\_\_\_ 1.5 million computer science-related jobs in the US in the nearest future.
- \_\_\_\_\_ anything wrong with your laptop?
- \_\_\_\_\_ so many kinds of mobile devices available.
- \_\_\_\_\_ usually a special mobile operating system built in tablets.
- How many USB ports \_\_\_\_\_ on your tablet?
- In 2018 \_\_\_\_\_ three major players in the mobile apps space including Google Play, Apple's AppStore and Amazon AppStore.
- \_\_\_\_\_ a virtual or a physical keyboard on most smartphones?

**2. Complete the sentences with some, any or no.**

- I downloaded a new update without \_\_\_\_\_ difficulty.
- Everyone gets 5GB of free iCloud storage to get started and it's easy to upgrade at \_\_\_\_\_ time.

3. There is \_\_\_\_ compatibility with Samsung Health app and iOS.
4. At Apple you will develop your professional skills and work with \_\_\_\_ of the best minds in the business.
5. Can you give me \_\_\_\_ more information about this e-reader model?
6. With iCloud Photos, you can browse, search, and share all the photos and videos from \_\_\_\_ of your devices.
7. According to the producers, with Galaxy S22 Ultra's all-day battery you don't need \_\_\_\_ charger.
8. Could I have \_\_\_\_ more details about Samsung Galaxy Tab S8 Ultra?
9. There is \_\_\_\_ more room for music on my phone.
10. There are \_\_\_\_ features that are Android and iOS compatible.

**3. Play a game *What's in your phone?* Ask your partner what in his / her phone is. Use the construction *there is / there are*. Choose at least three items from the list below. Change the roles.**

*Example:* - *Are there any unread emails in your phone?* – *No, there aren't any / Yes, there are some.*

Facebook app, 100+ contacts, 300+ pictures, videos, Instagram app, a protective case, a cracked screen, unread text messages, a ringtone as a song, more than 70% battery life, a selfie, a protected password, Android, iOS, headphones with you, Face ID, 8GB of RAM, VK app

**4. Complete the sentences with *much / many / little / few / a little / a few*.**

1. Generally, even one of the largest companies like Intel only has \_\_\_\_ computer architects.
2. This company is very small. There aren't \_\_\_\_ employees in it.
3. – How \_\_\_\_ does he work? – Too \_\_\_\_.
4. \_\_\_\_ years ago we knew very \_\_\_\_ about augmented reality.
5. How \_\_\_\_ hardware improvements have been made to the Galaxy S22 Ultra?
6. Very \_\_\_\_ of my friends have a digital camera, most of them use a built-in camera in their phones.
7. There are \_\_\_\_ layers of defense that protect your phone against malicious threats.
8. The design of this smartphone has made \_\_\_\_ impression on me. I expected more.
9. How \_\_\_\_ external storage is available with microSD card?
10. AR Emoji feature allows you to get \_\_\_\_ animated.

**5. Match the question with the appropriate answer.**

1. – What did you say?	a. – Nobody.
2. – Is everything clear to you?	b. – Please, do.
3. – Is there anybody waiting outside?	c. – Yes, I'm looking for a memory stick.
4. – Does anybody mind if I open the window?	d. – Nothing.
5. – Have you lost anything?	e. Any time. I'll be in all day.
6. – Are you going anywhere today?	f. – Sorry, but I understand nothing.
7. – What time shall I come tomorrow?	g. – No, I'm too tired.

## 6. Choose the right option.

- Is there **something** / **nothing** / **anything** interesting?
- We haven't demonstrated this to **anything** / **anybody** / **nobody** else.
- They said **anything** / **nothing** / **something** new.
- Have you heard **nothing** / **anything** / **nobody** about 5G capabilities?
- There are so **little** / **many** / **much** times it's easier to talk to your mobile phone than type.
- The accuracy of voice recognition has improved dramatically over the last **little** / **a few** / **few** years.
- I have absolutely **no** / **nothing** / **any** idea where to charge my phone.
- If you can't decide now which model to choose take **few** / **a little** / **little** time to think it over.
- Too **many** / **little** / **much** heat can damage your phone.
- I was looking for a charger **anywhere** / **everywhere** / **nowhere**, but I couldn't find it **everywhere** / **nowhere** / **anywhere**.
- There is **nothing** / **everything** / **something** wrong with the file. I can't open it.
- Anybody** / **nobody** / **everybody** / has ever had any trouble with this machinery.

## SPEAKING

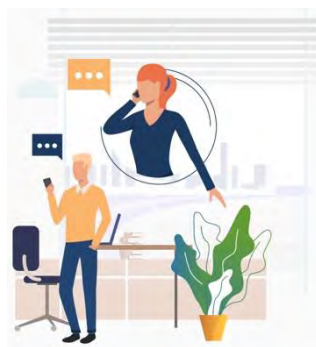
### A Successful Phone Call & Leaving a Message

#### Start-up

What can make a phone call successful?

1. Read and listen to the **dialogue** below. How does it sound to you? Do you think it is a successful phone call? Why / Why not?

- Hello.
- Is Mr Wong there?
- Who?
- Mr Wong.
- No.
- Oh, OK, bye.



**2. Read and listen to an improved version of the dialogue. Is it more successful?  
Pick up phrases that make the telephone conversation more successful.**

- A:** Orient Exports, Good morning.  
**B:** Could I speak to Mr. Wong, please?  
**A:** I'm afraid he isn't in his office at the moment. Can I take a message?  
**B:** Oh, yes, could you ask him to call me back when he gets in?  
**A:** Of course, could I take your name and number, please?  
**B:** It's Nimisha Patel.  
**A:** How do you spell Nimisha?  
**A:** That's N-I-M-I S-H-A.  
**B:** OK, that's great. And the phone number?  
**A:** It's 013 95 65.  
**B:** So, that's 013 95 65.  
**A:** Yes, that's right.  
**B:** OK, Ms. Patel. I'll ask Mr. Wong to call you as soon as he gets in.  
**A:** Thanks very much.  
**B:** That's fine.  
**A:** OK, bye.  
**B:** Goodbye.

**3. Fill in the gaps with these words. Then listen and check. LINK 1**

called, meeting, off, line, leave, message

1. I'm afraid he's taken the afternoon \_\_\_\_\_.
2. Can I take a \_\_\_\_\_.
3. Shall I tell him you \_\_\_\_\_?
4. Hold the \_\_\_\_\_, please. I'll put you through.
5. I'm sorry, he's in a \_\_\_\_\_.
6. Would you like to \_\_\_\_\_ a message?

**4. Match the sentences above (1 – 6) with the headings below (a – c).**

- a. asking someone to wait
- b. saying someone isn't available
- c. offering to take a message

**5. Jim is trying to talk to his friend, Peter. Listen and put conversations (a – c) in order. LINK 2**

- a. Peter phones Jim's office.
- b. Jim phones Peter's office.
- c. Jim phones Peter's wife.

**6. Listen again and answer the questions. LINK 2**

1. Why isn't Peter in his office?
2. Has Jim called Peter's mobile?
3. Why does Jim want to talk to him?
4. Where is Jim when Peter phones him back?

**7. Match these headings with the sentences from the phone conversations you have just listened to.**

- *Saying where people can contact you*
- *Leaving a message*
- *Asking to speak to someone*

1 \_\_\_\_\_

Can I speak to Peter Parker, please?  
Is Peter there, please?  
Could I speak to Jim Moore, please?

2 \_\_\_\_\_

Could you ask him / her to phone me tomorrow?  
Can you ask him / her to call me back?  
Just tell him / her Peter Parker called.

3 \_\_\_\_\_

He / She can ring me at the office.  
He / She can get me on my mobile.  
He / She can call me at home this evening.



**5. Make conversations. Follow the instructions.**

**Student A**

a) Work on your own. Read the information for phone conversations 1 – 4.  
Decide what you want to say in each conversation.

**1**

- Phone your lawyer, Bernard Robins.
- If you can't speak to him, leave a message and say when you are going to leave your office.
- Say where he can contact you after that.

**3**

- Phone your friend, Roberto.
- Say who you are and ask to speak to him.
- If he's out, tell your partner why you're calling.
- Leave a message and say where / how Roberto can contact you.

<p><b>2</b></p> <ul style="list-style-type: none"> <li>- You are Liz Jackson's flatmate.</li> <li>- Liz isn't in.</li> <li>- When your partner calls, tell him / her where Liz went and when she'll be back.</li> <li>- Offer to take a message.</li> </ul>	<p><b>4</b></p> <ul style="list-style-type: none"> <li>- You are the receptionist for a firm of accountants called Bradley and Wise.</li> <li>- When your partner calls, ask him / her to wait, then try to put him / her through to Gabriela Wise.</li> <li>- Her secretary says it's her day off today. Offer to take a message.</li> </ul>
---	---

b) Work with your partner. Take turns to phone each other.

<p><b>Student B</b></p> <p>a) Work on your own. Read the information for phone conversations 1 – 4. Decide what you want to say in each conversation.</p>	
<p><b>1</b></p> <ul style="list-style-type: none"> <li>- You are the receptionist for a law firm called Black and Milton.</li> <li>- When your partner calls, ask him / her to wait, then try to put him / her through to Mr Robins.</li> <li>- You find he is on the phone.</li> <li>- Offer to take a message.</li> </ul>	<p><b>3</b></p> <ul style="list-style-type: none"> <li>- You are Roberto's brother / sister.</li> <li>- He isn't at home at the moment.</li> <li>- When your partner calls, tell him / her where Roberto went.</li> <li>- Offer to take a message.</li> </ul>
<p><b>2</b></p> <ul style="list-style-type: none"> <li>- Phone your friend, Liz Jackson.</li> <li>- Say who you are and ask to speak to her.</li> <li>- If she's out, ask when she will be back.</li> <li>- Then leave a message and say where / how she can contact you.</li> </ul>	<p><b>4</b></p> <ul style="list-style-type: none"> <li>- Call your accountant, Gabriela Wise.</li> <li>- If she isn't in, leave a message and tell the receptionist two ways Gabriela can contact you.</li> </ul>

b) Work with your partner. Take turns to phone each other.

## WRITING

---

### *A Text Message Invitation*

#### *Start-up*

Do you send many text messages or do you prefer to speak to your friends to make plans?

Texting can be a good way to stay in touch with someone, get to know them better and make arrangements to meet in person. When texting, we often use abbreviations instead of words or phrases in their full form. Some of these shortened forms are based on numbers.

**1. Study the list of some popular abbreviations and acronyms and their meanings.** *Acronyms* are words that are formed mostly from the initial letters of a word or a phrase.

c - see	ttyl - Talk to you later
u - you	ymmd - You made my day
L8R - later	ctn - Cannot talk now
4 - for	sus - See you soon
b4 - before	hak - Hugs and kisses
2 - to/ two	gr8 - Great
brb - Be right back	idc - I don't care
tyl - Talk to you later	imu - I miss you
Rofl - Rolling on floor laughing.	j/k - Just kidding
lmk - Let me know	np - No problem
nvm - Never mind.	wycm - Will you call me?
hf - Have fun	tyvm - Thank you very much
idk - I don't know	tgif - Thanks God, its Friday
imho - In my humble opinion	sflr - Sorry, for late reply
nnttr - No need to reply	omg - Oh my God

**2. Now, what do you think the following abbreviations mean?**

1. CU L8R	4. THX 4 that	7. BRB
2. LOL	5. CU 2nite	8. HRU
3. OMG UR so funny!	6. LMK	9. PCM

**Do you use any similar abbreviations in your language?**

**Some people think that writing online is making young people's spelling and grammar worse. Do you agree? Why?**

**Learn some tips of texting an invitation to a friend.**

1. You don't need to write complete sentences.
2. You can use abbreviations like LOL (= laughing out loud) or IDK (= I don't know) to save time.
3. Use emoji to add feelings.
4. You don't need to use full stops (.) at the end of messages.

**3. Match the longer phrases (a–f) with the short phrases (1–6).**

**Short phrases**

1. tho
2. Want to meet?

**Longer phrases**

- a. Do you want to meet?
- b. That's great! / That's fine!



3. LOL / lol
4. msg me
5. IDK / idk
6. Cool!

- c. though
- d. I don't know
- e. laughing out loud
- f. Send me a message.

**4. Read the text conversation.**

1. Hey! A coffee after work?	2. Yeah! What time do you finish?
3. Late as always 😞 😞	4. Me too. Msg me when you leave
5. OK. Where do you want to go?	6. IDK. I might be hungry tho
7. Good point. I'll think of somewhere to eat. I know what you're like when you're hungry! 😞 😞	8. LOL, I'm not that bad! Don't worry We can meet at the bus stop and decide then
9. 😊 😊 See you later	

**5. Decide if the statements about the conversation are True or False.**

1. This is a formal conversation about work.
2. They will both finish work late.
3. This is the first time they are working late.
4. They know what time they will meet.
5. They are going to have a coffee.
6. They are not going to eat.
7. They know where they will meet.
8. They will send more messages before they meet tonight.

**6. Restore the conversation. Write a number (1–7) to put the messages in order.**

- Joseph: -See you later. Work hard  
😊 😊
- Mark: -Hey. Cool, what time?
- Mark: -Now??? I'm still at work!
- Joseph: -I can wait. Msg me when you leave?
- Joseph: -Hey Mark, want to go for dinner?
- Mark: -OK! See you later
- Joseph: -Right now lol

**7. Exchange messages with a friend. Use the guidelines.**

Student A	Student B
1. Greet your friend in an informal way	
	2. Greet in respond. Ask what is up
3. Suggest meeting for a coffee	
	4. Agree, ask when
5. Say you're having classes and you finish at 5. Suggest 5:15	
	6. Say it's difficult for you. Suggest meeting 30 minutes later
7. Agree, ask where	
	8. Suggest B Café, say why
9. Ask where it is as you don't know it	
	10. Explain it's next to the sport center
11. Say bye, suggest seeing each other there at 5:45	

## LISTENING

---

### *Mobile Devices*

#### **SETTING THE CONTEXT**

1. Do you know when the first portable commercial mobile phone went on sale?
2. How have mobile phones evolved since then?
3. Do you use any kind of wearable device? If yes, what features of a smartwatch or a fitness tracker do you find the most useful for you?
4. How often do you use a navigation app on a smartphone?

#### **ACTIVATING VOCABULARY**

**1. Match the English words with their Russian equivalents.**

1. hub	a) рентгеновский снимок
2. wearable	b) дополнительный
3. to enhance	c) выполнить
4. additional	d) центр деятельности
5. X-ray	e) всплывать
6. to accomplish	f) усилить
7. to pop up	g) носимый

## 2. Match the words with their definitions.

1. to superimpose	a) power or ability to do something
2. to revolve	b) to make something greater by adding to it
3. cellular	c) to place or lay one thing over another, typically so that both are still evident
4. to augment	d) to combine with another so that they become a whole
5. capability	e) denoting or relating to a mobile telephone system
6. to integrate	f) to move around in a circle on a central axis

Before proceeding to LISTENING COMPREHENSION section, please follow the [LINK](#) to watch the video.

### *LISTENING COMPREHENSION*

#### 1. Choose the best option. Sometimes more than one option is possible.

- Tablets usually run \_\_\_\_\_.
  - Windows
  - Linux
  - iOS
  - Android
- The types of input associated with tablets include \_\_\_\_\_.
  - a keyboard
  - a touchscreen
  - a mouse
  - a stylus
- A tablet is from \_\_\_\_\_.
  - 3,5 inches to 6 inches diagonal device
  - 7 inches diagonal device
  - 14 inches diagonal device
- A smartphone is \_\_\_\_\_.
  - a wearable device
  - a global positioning system device
  - a communication hub
- Which device has an exceptionally long battery life?
  - A smartphone
  - A tablet
  - An e-reader
  - A smartwatch
- E-readers use \_\_\_\_\_.
  - a color LCD screen
  - a very light screen

- c. a black and white screen
- 7. The battery in e-readers is used when \_\_\_\_\_.
  - a. you read information on the screen
  - b. you change pages
  - c. you update information
- 8. A smartwatch \_\_\_\_\_.
  - a. enhances the ability to watch videos
  - b. is designed to perform extremely well in direct light
  - c. integrates with a mobile phone
- 9. With virtual reality devices \_\_\_\_\_.
  - a. we combine the real world and the virtual world
  - b. we completely remove the real world
  - c. we are able to see everything that's outside of the display you put on
- 10. A GPS navigator gives you \_\_\_\_\_.
  - a. turn-by-turn directions
  - b. a wide range of different applications
  - c. information about your heart rate

**2. Match the words that go together in the video.**

1. augmented	a) life
2. communication	b) viewer
3. GPS	c) directions
4. electronic	d) reality
5. heart	e) satellites
6. long battery	f) environment
7. media	g) hub
8. virtual	h) access
9. turn-by-turn	i) rate
10. touchscreen	j) paper

**3. Answer the following questions based on the video.**

1. What is the advantage of electronic paper technology?
2. What interesting characteristic do e-readers have?
3. How does augmented reality work?
4. What examples of augmented reality application could you give from the video?
5. What is the difference between augmented reality and virtual reality?
6. How does a GPS navigator receive signals?
7. What are the two ways of updating a GPS device?

**4. Make a plan that outlines the main points of the video.**

**5. Summarize the main content of the video in 10-12 sentences using the plan.**

## UNIT 4

# OPERATING SYSTEMS

### START-UP

---

#### 1. Answer the questions.

1. What operating systems do you know? Which one is installed on your devices?
2. Do you think one and the same operating system can be used for computing, programming and gaming?



### VOCABULARY

---

#### 1. Match the words with their definitions.

- |                              |  |
|------------------------------|--|
| 1) array                     | a) an improved or updated version of something   |
| 2) password                  | b) a computer program that controls a device   |
| 3) default                   | c) the central, most important part of something   |
| 4) upgrade                   | d) a sequence of characters that must be entered in order to gain access to electronically locked or protected computer or security systems, files, etc. |
| 5) driver                    | e) a computer or program that supplies data or resources to other machines on a network  |
| 6) kernel                    | f) a preset choice, setting, etc. for automatic use as by a program when no other is specified by a user   |
| 7) server                    | g) a technique through which multiple operating systems can be kept within the boot sequence on the same computer  |
| 8) geek                      | h) a group of two or more logically related elements, identified by a single name and usually stored in main memory                                      |
| 9) dual booting              | i) an emulation of a computer system   |
| 10) virtual machine          | j) a means of interacting with a computer program where the user issues commands to the program in the form of successive lines of text                  |
| 11) command line interface   | k) a form of user interface that allows users to interact with electronic devices through graphical icons and visual indicators                          |
| 12) graphical user interface | l) a person regarded as being especially enthusiastic, knowledgeable, and skillful in the use of computers   |

**2. Match the synonyms given below.**

- |                  |                 |
|------------------|-----------------|
| 1) generic       | a) to run       |
| 2) to upgrade    | b) to deliver   |
| 3) to terminate  | c) common       |
| 4) kernel        | d) promising    |
| 5) up-and-coming | e) percentage   |
| 6) varied        | f) designed for |
| 7) intended for  | g) different    |
| 8) to master     | h) to modernize |
| 9) to launch     | i) core         |
| 10) to ship      | j) to finish    |
| 11) share        | k) to learn     |

**3. Complete the sentences with the words and word-combinations from the box.**

**launch, optimize, master, market share, default, up-and-coming, by default, run, come pre-installed, upgrade**

1. In June 2020, Microsoft had about 88% \_\_\_\_\_.
2. I've had to reinstall Office recently and found an annoying Microsoft Word \_\_\_\_\_ setting.
3. It only takes a few hours of practice to \_\_\_\_\_ the technique.
4. We need to \_\_\_\_\_ our use of the existing technology.
5. The translator is enabled \_\_\_\_\_ in Yandex Browser.
6. We've been collaborating with an \_\_\_\_\_ UI designer on our website \_\_\_\_\_.
7. Most versions of Windows these days \_\_\_\_\_ with some MSN Zone games.
8. We're planning to \_\_\_\_\_ a new Internet services company next month.
9. Can you \_\_\_\_\_ both of these programs at once?

**4. Complete the table with the appropriate derivatives. Pay attention to the meaning of the words.**

Verb	Noun	Adjective / Participle
perform		
	compression	
		terminal
vary		
	program	
know		
administer		
	revolution	
		inclusive
optimize		

**5. Complete the sentences with the appropriate derivative of the word given in capitals.**

1. Your responsibilities will be mainly \_\_\_\_\_. (ADMINISTER)
2. This problem may be solved in a \_\_\_\_\_ of ways. (VARY)
3. A good job was done with the online business \_\_\_\_\_. (OPTIMIZE)
4. He is very \_\_\_\_\_ about electrical engineering and architecture. (KNOW)
5. I'm talking about products that \_\_\_\_\_ the way we live. (REVOLUTION)
6. To design a system with advanced \_\_\_\_\_ is still a challenging task. (PERFORM)
7. End command is simply used to \_\_\_\_\_ the program. (TERMINAL)
8. His \_\_\_\_\_ in the team is in doubt. (INCLUSIVE)

**READING**

---

**1. Read the text and answer the questions.**

1. What is an operating system?
2. What lower level tasks can it perform?
3. What is the OS kernel responsible for?
4. What is the market share of the most popular OS today?
5. Give examples of non-Windows operating systems.
6. Why do computer enthusiasts run more than one OS on their computer?
7. What are the two major user interfaces?
8. What are GUIs and CLIs intended for?
9. What is the CLI in Windows and Mac OS X known as?
10. What is Ubuntu?
11. What features does Ubuntu include?

**An Operating System**

An operating system is a generic term for the multitasking software layer that lets you perform a wide array of 'lower level tasks' with your computer. By low-level tasks it is meant: the ability to sign in with a username and password; sign out the system and switch users; format storage devices and set default levels of file compression; install and upgrade device drivers for new hardware; install and launch applications such as word processors, games, etc.; set file permissions and hidden files; terminate misbehaving applications.

A computer would be fairly useless without an OS, so today almost all computers come with an OS pre-installed. Before 1960, every computer model would normally have its own OS custom programmed for the specific architecture of the machine's components. Now it is common for an OS to run on many different hardware configurations.

At the heart of an OS is the kernel, which is the lowest level, or core, of the operating system. The kernel is responsible for all the most basic tasks of an OS such as controlling the file systems and device drivers. The only lower-level software than the kernel would be the BIOS, which isn't really a part of the operating system.

The most popular OS today is Microsoft Windows, which has about 85% of the market share for PCs and about 30% of the market share for servers. But there are different types of Windows OSs as well. Each Windows OS is optimized for different users, hardware configurations, and tasks.

There are many more operating systems out there besides the various versions of Windows, and each one is optimized to perform some tasks better than others. Free BSD, Solaris, Linux and Mac OS X are some good examples of non-Windows operating systems.

Geeks often install and run more than one OS on a single computer. This is possible with dual-booting or by using a virtual machine. Why? The reasons for this are varied and may include preferring one OS for programming, and another OS for music production, gaming, or accounting work.

An OS must have at least one kind of user interface. Today there are two major kinds of user interfaces in use, the command line interface (CLI) and the graphical user interface (GUI). Right now you are most likely using a GUI interface, but your system probably also contains a command line interface as well.

Typically speaking, GUIs are intended for general use and CLIs are intended for use by computer engineers and system administrators. Although some engineers only use GUIs and some diehard geeks still use a CLI even to type an email or a letter.

Examples of popular operating systems with GUI interfaces include Windows and Mac OS X. Unix systems have two popular GUIs as well, known as KDE and Gnome, which run on top of X-Windows. All three of the above mentioned operating systems also have built-in CLI interfaces as well for power users and software engineers. The CLI in Windows is known as MS-DOS. The CLI in Mac OS X is known as the Terminal. There are many CLIs for Unix and Linux operating systems, but the most popular one is called Bash.

In recent years, more and more features are being included in the basic GUI OS install, including notepads, sound recorders, and even web browsers and games.

A great example of an up-and-coming OS is Ubuntu. Ubuntu is a Linux operating system which is totally free, and ships with nearly every application you will ever need already installed. Even a professional quality office suite is included by default. What's more, thousands of free, ready-to-use applications can be downloaded and installed with a few clicks of the mouse.

This is a revolutionary feature in an OS and can save lots of time, not to mention hundreds or even thousands of dollars on a single PC. Not surprisingly, Ubuntu's market share is growing very quickly around the world.

As an IT professional, you will probably have to learn and master several, if not all, popular operating systems. If you think this sort of thing is fun and interesting, then you have definitely chosen the right career [23].



ubuntu



**2. Read the text again and say whether these statements are true or false.**

1. An operating system is a master program on your computer and helps make the device very useful.
2. An operating system is programmed for the specific architecture of the machine's components.
3. The kernel is responsible for installing and launching applications.
4. Microsoft Windows is the dominant OS on the market.
5. A virtual reality headset allows to install and run more than one OS on a single computer.
6. Command line interface is intended for ordinary users.
7. Nowadays more features like web browsers and games come pre-installed with an OS.
8. Ubuntu is a futureless version of Linux.
9. Ubuntu's market share is growing because it costs nothing.

**3. Match the words that go together in the text.**

- |                         |                                      |
|-------------------------|--------------------------------------|
| 1. to launch            | a. device drivers                    |
| 2. to come with         | b. for different users               |
| 3. to upgrade           | c. file permissions                  |
| 4. market               | d. office suite                      |
| 5. to set               | e. several OSs                       |
| 6. run on               | f. applications                      |
| 7. to be optimized      | g. by default                        |
| 8. professional quality | h. an OS pre-installed               |
| 9. to be included       | i. different hardware configurations |
| 10. to master           | j. share                             |

**4. Make two sentences with any word combinations from Exercise 3.**

**5. Develop the ideas about an Operating System with the help of the Mind Map. Follow the [LINK](#).**

**6. Make a short summary of the text.**

**LANGUAGE FOCUS** \_\_\_\_\_

**DEGREES OF COMPARISON**

Consult grammar rule using the [LINK](#).

**1. Make comparisons as in the example.**

*Example: A laptop, a tablet, a smartphone (portable)*

*A laptop is portable. A tablet is more portable.*

*A smartphone is the most portable.*

***A smartphone, a laptop, a desktop (portable)***

*A smartphone is portable. A laptop is less portable.*

*A desktop is the least portable.*

1. Windows 10, Mac OS X, Linux (secure)
2. Nick's program, Phillip's program, Pavel's program (good)
3. Google's Android, Apple's iOS, Windows 10 Mobile (popular)
4. A laptop screen, a tablet screen, a smartphone screen (small)
5. Windows, MacOS, Linux (familiar for ordinary users).
6. Linux user base, Mac OS X user base, Windows user base (large)
7. A laptop, a desktop, a supercomputer (powerful)
8. Windows 10, Mac OS X, Linux (vulnerable)

## **2. Choose the best option.**

1. Recent advances in computer processing allows manufacturers to process information ***the fastest / more fast / faster***.

2. Apple park is one of ***the most large / the largest / larger*** construction projects in the world.

3. Every Apple product is designed to make everyone's life ***best / gooder / better***.

4. People use technology to solve some of ***the biggest / bigger / the most big*** problems facing society.

5. A new display on iPhone 14 Pro Max is ***the more advanced / the most advanced / the advancedest*** in the industry.

6. Intelligent A16 Bionic is ***smarter / more smart / the smartest*** chip in a smartphone, with the next generation Neural Engine.

7. Altair Engineering makes computer-aided engineering software used to create ***more stronger / more strong / stronger, more better / better / the goodest, more innovative / innovativer / most innovative*** products.

8. ***The smaller / more small / the smallest*** unit of information is a single bit.

9. Google creates tools that help keep everyone ***safer / more safe / more safer*** online.

10. ***The goodest / the best / the better*** part about technology is seeing what the world does with it.

## **3. Complete the sentences with the appropriate form of the irregular adjective.**

1. – Are your programming skills improving? – Yes, they're getting \_\_\_\_ (good).

2. The damage to your laptop isn't so bad. It could have been much \_\_\_\_ (bad).

3. It is \_\_\_\_ (bad) smartphone I've ever had.

4. Machine learning could also be used to predict crash risks and \_\_\_\_ (good) understand driver's reactions behind the wheel.

5. These days much \_\_\_\_ (many) people are using smartphones.

6. Windows Phone OS is considered to be \_\_\_\_ (bad) than Android.
7. I've got \_\_\_\_ (far) information on this issue.
8. Apple's more than 100.000 employees are dedicated to making \_\_\_\_ (good) products on earth, and to leaving the world \_\_\_\_ (good) than we found it.
9. Windows 8 is \_\_\_\_ (bad) version of Microsoft Windows.
10. This month Misha's spent \_\_\_\_ (little) time on playing computer games than last month.

**4. Complete the sentences with the appropriate form of the adjective from the box.**

**great, rich, expensive, small, intelligent, good, useful, late**

1. An iMac is much \_\_\_\_ than a PC.
2. The availability of data and information is a lot \_\_\_\_ now than it has ever been.
3. What is \_\_\_\_ version of Windows?
4. The recent innovations in cloud technology aim to make Microsoft platforms far \_\_\_\_.
5. The Apple ecosystem offers \_\_\_\_ integration between Mac OS computers and iOS-running mobile devices that no other company can match.
6. Apple computers market share is much \_\_\_\_ than the PC market share.
7. Bill Gates is the founder of Microsoft and one of \_\_\_\_ men in history.
8. The more you know about the business of IT, the \_\_\_\_ IT professional you will become.

**5. Complete the text by changing the form of the words in brackets.**

Linux is an open source OS whereas Windows is commercial. However, Windows remains the winner in terms of popularity. It is \_\_\_\_ (popular) OS for home and office computers, while Linux is \_\_\_\_ (available) on corporate and scientific servers. Though Linux is not \_\_\_\_ (widely-used) OS in the world, it will run \_\_\_\_ (fast) than Windows latest editions. Nevertheless, Windows has \_\_\_\_ (large) collection of videogame software. Linux distributions are \_\_\_\_ (customizable) than Windows, because Windows has very few customization options available. As Windows has a \_\_\_\_ (large) user base than Linux, it is \_\_\_\_ (vulnerable) to viruses and other malware. Thus, Windows has the reputation of being \_\_\_\_ (secure) than Linux simply because it's \_\_\_\_ (widely-used) desktop OS and \_\_\_\_ (targeted).

**6. Make your own sentences using the comparatives and the superlatives.**

1. Microsoft / large software business / in the world.
2. Windows / secure / Linux.
3. Windows 11 PCs provide / fast processors / and quiet Windows hard drives / the previous PCs.
4. Linux / used OS / with the users accounting for 2%.

5. Windows 11 / compatible / with all kinds of software / MacOS X.
6. MacOS X / vulnerable to malware / Windows 10.
7. Windows / wide game selection / of all operating systems.
8. For developers and programmers Linux / good choice.
9. Linux / secure OS / of all.

## SPEAKING

---

### *Making Successful Small Talk*

#### *Start-up*

‘Small talk’ is a polite conversation about unimportant things, often between people who do not know each other well. Socializing and small talk are important skills language learners have to master. The most common time for small talk to occur is the first time you see or meet someone on a given day.



**1. Listen to the beginning of a business meeting. Steve is welcoming Anna to his company. Answer the questions. [LINK 1](#)**

- Do you think this is successful small talk? Why? Why not?

**2. Listen to and read another conversation. [LINK 2](#)**

What is different about the way the speakers make small talk compared to the conversation in Exercise 1? The situation is similar: Jean-Luc and Francine are visiting Dave’s company, and they are making small talk before the meeting.

**Dave:** If you’d like to hang your coat up, Jean-Luke, there’s a rack in the corner.

**Jean-Luke** Here?

**Dave:** Yeah.

**Dave:** We’ll just wait for Paul. He’s making a cup of tea.

**Francine:** So, no rain here today, then?

**Dave:** Not at the moment. The weather forecast is for nice warm weather for the next couple of days anyway.

**Francine:** Oh, that’s good.

**Dave:** So, it makes a change from rain, doesn’t it?

**Francine:** Yes.

There are different strategies that people can use to keep a conversation going:

- use an expression that shows interest;
- add some information after answering a question;
- make a further comment on the same topic.

**3. Look at the extracts from the two conversations below. Which of the strategies do the speakers use?**

**Extract 1**

**Francine:** So, no rain here today, then?

**Dave:** Not at the moment. The weather forecast is for nice warm weather for the next couple of days anyway.

**Francine:** Oh, that's good.

**Extract 2**

**Maria** A lane had been closed off and no one was doing anything.

**Luke** Really?

**Maria** We must have been waiting for half an hour.

**4. Have a look at some more expressions you can use to show interest. Practice them.**

Expressions to show interest		
Oh, really?	Sure!	Definitely!
That's great!	(That's) true.	(That's) wonderful!
Exactly.	Absolutely!	Excellent!
Wow!		

**5. Work with your partner. Change the conversation between Steve and Anna so that it is more successful. Use expressions to show interest.**

**Steve:** How is your hotel?

**Anna:** Fine.

**Steve:** The flight was OK?

**Anna:** Yes.

**Steve:** Did you get a taxi OK this morning?

**Anna:** Yes.

**Steve:** The traffic is usually OK this time of the day. Would you like some coffee?

**Anna:** Yes, please.

**6. Listen to a good example and compare it with your own. [LINK 3](#)**

## WRITING

---

### *An Email to Congratulate a Colleague*

#### *Start-up*

Could you name any occasions or major life events you can wish your colleagues / groupmates / friends and family congratulations?

#### **Preparation task**

##### **1. Match the words and expressions with the definitions.**

1. content	a. pleased and happy
2. easy to follow	b. connected with what is happening
3. glad	c. the ideas that are contained in something
4. impressed	d. easy to understand
5. relevant	e. feeling respect or admiration

##### **2. Read the text and tips and do the exercises.**

Great presentation!

To pavel\_kovalev@gmail.com Cc Bcc

Subject Great presentation!

Hi Pavel,

I'm just writing to say well done on your presentation this morning. It was not an easy task and I'm glad it went well. You were well prepared. The content was relevant and easy to follow. You also thought about the questions people would have. I think they were impressed! I'm sure everyone feels happier about the new system now.

If you have time, please could you listen to my presentation for next week?

See you later,  
Victoria

Send

## Tips

1. Write a clear subject line.
2. It's OK to start with **Hi** for an informal or friendly email.
3. Start with your reason for writing:

*I'm just writing to say ...*

4. Give specific feedback about things that went well:

*The content was relevant and interesting ...*

*It was easy to follow ...*

*... you thought about the questions people would have.*

5. Say what effect their work has had:

*I think they were impressed!*

*I'm sure everyone feels happier about the new system now.*

6. You can finish with:

*See you later* or *Speak soon*.

### 3. Are the sentences true or false?

1. Pavel worked hard on the presentation.
2. The information was useful and easy to understand.
3. Pavel didn't think people would ask questions.
4. Some people didn't like Pavel's presentation.
5. Victoria would like help with her presentation next week.

### 4. Put the sentences in order to make an email.

1. I'm just writing to say congratulations on your report.
2. When you have time, please could you show me how to use the software you used to make the tables?
3. It will help me explain the new plan to the director.
4. Thanks a lot, Mike
5. Hi Linda,
6. The structure is clear and the information is very useful for our new marketing plan.

### 5. Complete the sentences with the words from the box.

a, to, were, about, could, you, everyone, was, well, have, on, lot

1. I'm just writing \_\_\_\_\_ say well done \_\_\_\_\_ your presentation yesterday.
2. It was \_\_\_\_\_ difficult task and I'm glad it went \_\_\_\_\_.
3. The information \_\_\_\_\_ relevant and you thought \_\_\_\_\_ how to explain the information clearly.

4. I'm sure \_\_\_\_\_ understands our work better now. I think they \_\_\_\_\_ impressed!
5. If you \_\_\_\_\_ time, please \_\_\_\_\_ you help me with the presentation to the director next week?
6. Thanks a \_\_\_\_\_. See \_\_\_\_\_ later.

**6. Write an email to congratulate your groupmate / colleague on successful presentation / passing exams / submitting a course work, etc.**

## LISTENING

---

### *What is Linux?*

#### **SETTING THE CONTEXT**

1. Can you single out the main advantages and disadvantages of the OS installed on your device?
2. Have you ever heard about Linus Torvalds? What is he famous for?

#### **ACTIVATING VOCABULARY**

**1. Match the English words (phrases) with their Russian equivalents.**

1. proprietary	a. приспособливать, делать на заказ
2. low-end	b. ограничение
3. granular	c. новичок
4. to get used to smth.	d. кривая обучения
5. repository	e. частный
6. restriction	f. хранилище, репозиторий
7. to tailor	g. многоуровневый, детальный
8. learning curve	h. связать
9. to tie	i. бюджетный, непроизводительный
10. newbie	j. привыкнуть

**2. Match the words having a similar meaning.**

1. restriction	a. cheap
2. proprietary	b. to pay much attention to smth.
3. to take advantage	c. limitation
4. low-end	d. confusing
5. to customize	e. private
6. compatibility	f. to make use of
7. complicated	g. to tailor
8. to place great emphasis on smth.	h. similarity



**Before proceeding to LISTENING COMPREHENSION section, please follow the [LINK](#) to watch the video.**

### ***LISTENING COMPREHENSION***

**1. Choose the best answer to these questions. Sometimes more than one option is possible.**

1. Windows is \_\_\_\_\_.
  - a. an open-source OS
  - b. a proprietary OS
  - c. is a relatively closed software environment
2. Linux is accessible to the public \_\_\_\_\_.
  - a. for nothing
  - b. for a charge
  - c. for free
3. Windows is fine for everyday use for many people because of \_\_\_\_\_.
  - a. its high degree of security
  - b. its high number of distros
  - c. its high degree of compatibility
4. What does *distro* stand for?
  - a. district
  - b. distribution
  - c. distinction
5. Choose Linux distributions.
  - a. Android
  - b. Ubuntu
  - c. Raspberry Pi
  - d. Mint
6. All Linux distros are tied to \_\_\_\_\_.
  - a. Linux kernel
  - b. Linux GUI
  - c. Linux CLI
7. Compared to Windows Linux \_\_\_\_\_.
  - a. is more resource heavy
  - b. places certain restrictions on what you can do
  - c. is more lightweight and less resource heavy
8. Linux is extremely popular for servers because \_\_\_\_\_.
  - a. it focuses on ease of use
  - b. it focuses on security and stability
  - c. some distros are specifically tailored for servers
9. With Windows OS you \_\_\_\_\_.
  - a. have to meet the minimum hardware requirements
  - b. can make use of any low-end machine
  - c. can utilize one of your oldest computer systems

10. Tons of free Linux programs are downloaded \_\_\_\_\_.
  - a. through a web browser
  - b. from a large repository specific to each distribution
  - c. from App Store

**2. Match the words that go together in the video.**

1. package	a. of compatibility
2. low-end	b. OS
3. to download software from	c. on ease of use
4. high degree	d. machine
5. to offer granular	e. of technical knowledge
6. open-source	f. manager
7. to place great emphasis	g. control over a computer
8. a proprietary	h. kernel
9. to place	i. a large repository
10. to require a fair amount	j. certain restrictions

**3. Watch the video again and complete the missing prepositions.**

1. Many computer users want a very fast computing experience \_\_\_\_\_ a possibly low-end machine.
2. A lot work has been done to make Linux distributions more user-friendly \_\_\_\_\_ the last 10 years.
3. Some Linux distros place great emphasis \_\_\_\_\_ ease of use.
4. There's a wide variety of applications available \_\_\_\_\_ package managers.
5. That might sound a little bit restrictive compared \_\_\_\_\_ the open nature of searching \_\_\_\_\_ Windows software \_\_\_\_\_ the web.

**4. Discuss the following questions.**

1. What is the difference between a proprietary and open-source OS?
2. Why is Linux beneficial for fast computing experience on a low-end machine?
3. Why is Linux rather complicated for newbies?
4. How is software downloaded in Linux?
5. How does Steam support Linux gamers?
6. What is the new Steam OS?
7. What recommendation is given for those who try to master the challenges that Linux presents?

**5. Make a plan that outlines the main points of the video.**

**6. Summarize the main content of the video in 10-12 sentences using the plan.**

## UNIT 5

# DATABASE MANAGEMENT SYSTEM (DBMS)

### START-UP

---

#### 1. Answer the questions.

1. How do you usually organize files on your PC or laptop?
2. Do you know what software tools businesses (banks, online stores) use to keep large amounts of data?
3. How do databases assist businesses?
4. Which DBMS from the list below are you familiar with?



### VOCABULARY

---

#### 1. Match the words with their definitions.

- |                |  |
|----------------|--|
| 1) database    | a) the process of restoring a database to a previously defined state, typically recover from error   |
| 2) concurrency | b) a process of retrieving inaccessible, lost, or damaged data from secondary storage, removable media or files, when the data stored in them cannot be accessed in a normal way |
| 3) integrity   | c) very strong or sturdily built   |
| 4) backup      | d) a situation when a computer system suddenly stops operating   |
| 5) recovery    | e) the ability of the database to support multiple users and processes simultaneously  |
| 6) crash       | f) a copy of a file or other item of data made in case the original is lost or damaged   |
| 7) robust      | g) state of being a united whole, unity  |
| 8) overheads   | h) a large collection of data in a computer, organized so that it can be expanded, updated, and retrieved rapidly for various uses   |
| 9) rollback    | i) regular and essential expenses  |

**2. Match the synonyms given below.**

- |                |                         |
|----------------|-------------------------|
| 1) iteration   | a) place                |
| 2) schema      | b) to change            |
| 3) to ensure   | c) to process           |
| 4) location    | d) repetition           |
| 5) to handle   | e) to extract           |
| 6) to modify   | f) numerous             |
| 7) multiple    | g) to examine, to check |
| 8) to audit    | h) structure design     |
| 9) to retrieve | i) to guarantee         |

**3. Complete the sentences with the words from the box.**

concurrency, end user, retrieve, backup, rollback, multiuser, iterations, integrity, modified, crash

- Damages in transactional files are to be repaired with the \_\_\_\_ option.
- The software can be \_\_\_\_ to suit the particular needs of the \_\_\_\_.
- Did they manage to \_\_\_\_ the deleted data?
- A high level of \_\_\_\_ is crucial to good performance in a \_\_\_\_ database system.
- It didn't matter that I had accidentally deleted the file, because there was a \_\_\_\_.
- Yesterday's server \_\_\_\_ created far more problems than we first realized.
- The network was trained by processing 12 \_\_\_\_ of the complete training set.
- Data \_\_\_\_ aims to prevent unintentional changes to information.

**4. Complete the table with the appropriate derivatives. Pay attention to the meaning of the words.**

Verb	Noun	Adjective / Participle
		iterative
	integrity	
locate		
	management	
define		
		secure
	addition	
differ		
		foundational
systematize		

**5. Complete the sentences with the appropriate derivative of the word given in capitals.**

1. You can \_\_\_\_\_ text with graphics and manipulate graphic images. (INTEGRITY)
2. The rent is reasonable, and moreover, the \_\_\_\_\_ is perfect. (LOCATE)
3. Investors need to be compensated for taking on \_\_\_\_\_ risk. (ADDITION)
4. These matters are vital to the national \_\_\_\_\_. (SECURE)
5. The work has been divided into smaller, more \_\_\_\_\_ sections.

(MANAGEMENT)

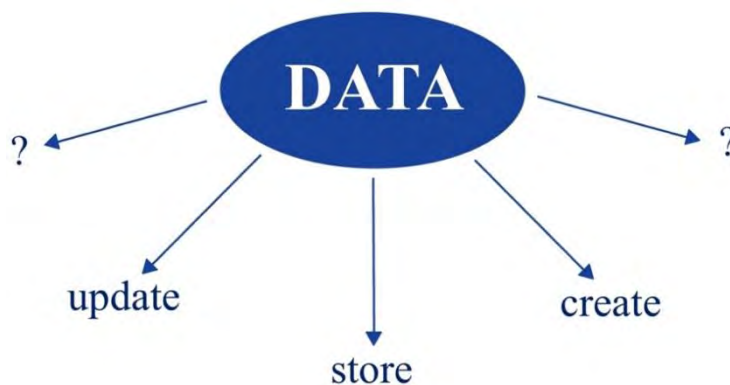
6. There is a fundamental \_\_\_\_\_ between the two points of view. (DIFFER)
7. He \_\_\_\_\_ the company 20 years ago. (FOUNDATIONAL)
8. A \_\_\_\_\_ study was carried out to evaluate the system efficiency.

(SYSTEMATIZE)

## READING

---

**1. Scan the text and find out what we can do with data:**



**2. Scan the text and match the words *data* and *database* with the correct word to make word combinations from the text.**

logical structure, security, independence, engine, users, integrity, recovery, schema, management systems, concurrency, backup, administration tasks

**3. Read the text and answer the questions.**

1. What is a database management system (DBMS)?
2. What can end users do with the help of a DBMS?
3. What three important things does this system manage?
4. What do these foundational elements provide?
5. What do database administration tasks include?
6. What other tasks are database management systems responsible for?
7. What does a centralized view of data mean?
8. What is the essence of logical and physical data independence?

9. What programming language is used to access data in a Relational DBMS?
10. What is the biggest advantage of using a DBMS?
11. When is data better protected and maintained?
12. What are the disadvantages of a DBMS?

## **Database Management System**

A database management system (DBMS) is system software for creating and managing databases. The DBMS provides users and programmers with a systematic way to create, retrieve, update and manage data.

A DBMS makes it possible for end users to create, read, update and delete data in a database. The DBMS essentially serves as an interface between the database and end users or application programs, ensuring that data is consistently organized and remains easily accessible.

The DBMS manages three important things: the data, the database engine that allows data to be accessed, locked and modified – and the database schema, which defines the database's logical structure. These three foundational elements help provide concurrency, security, robust data integrity and uniform administration procedures. Typical database administration tasks supported by the DBMS include change management, performance monitoring, backup and recovery. Many database management systems are also responsible for automated rollbacks, restarts as well as the logging and auditing of activity.

The DBMS is perhaps most useful for providing a centralized view of data that can be accessed by multiple users, from multiple locations, in a controlled manner. A DBMS can limit what data the end user sees, as well as how that end user can view the data, providing many views of a single database schema.

The DBMS can offer both logical and physical data independence. That means it can protect users and applications from needing to know where data is physically located because the DBMS handles all requests.

As long as programs use the application programming interface (API) for the database that is provided by the DBMS, developers won't have to modify programs just because changes have been made to the database. With relational DBMSs (RDBMSs), this API is SQL, a standard programming language for defining, protecting and accessing data in a RDBMS.

One of the biggest advantages of using a DBMS is that it lets end users and application programmers access and use the same data while managing data integrity. Data is better protected and maintained when it can be shared using a DBMS instead of creating new iterations of the same data stored in new files for every new application.

Using a DBMS to store and manage data also comes with some overheads. A DBMS will use more memory and CPU than a simple file storage system. And, of course, different types of DBMSs will require different types and levels of system resources [16].

### **4. Read the text again and say whether these statements are true or false.**

1. The DBMS provides users and programmers with a random way to create, retrieve, update and manage data.

2. The DBMS ensures that data is consistently organized and remains easily accessible.
3. End users have access to the data in a database without any limitations.
4. End users know where data is stored.
5. With relational DBMSs, a standard programming language is JavaScript.
6. The DBMS offers weak data integrity capabilities.
7. A DBMS does not come with any expenses.

**5. Match the words that go together in the text.**

- |                 |  |
|-----------------|--|
| 1. to handle    | a. programs                            |
| 2. to view      | b. concurrency                         |
| 3. to create    | c. from crashes and errors             |
| 4. to provide   | d. the overhead                        |
| 5. to recover   | e. the data                            |
| 6. to modify    | f. different types of system resources |
| 7. to come with | g. iterations                          |
| 8. to require   | h. requests                            |

**6. Use the word combinations from Exercise 5 and the words from the box to make three sentences in Present Simple.**

Developers, end users, a DBMS

7. **Develop the ideas about a DBMS using a DBMS Mind Map. Follow the [LINK](#).**
8. **Make a short summary of the text.**

**LANGUAGE FOCUS** \_\_\_\_\_

***SIMPLE TENSES***

**Consult grammar rule using the [LINK](#).**

**1. Complete the text with the affirmative or negative Present Simple form of the verb in brackets.**

Data in its raw form \_\_\_\_ (to have) no value. Data \_\_\_\_ (to need) to be processed in order to be of valuable. A flat file database \_\_\_\_ (to store) data in a text file and, unlike a relational database, \_\_\_\_ (not / to contain) multiple tables and relations. Relational databases \_\_\_\_ (to use) Structured Query Language (SQL) that \_\_\_\_ (to provide) an easy programming interface for database interaction. Some common examples of relational databases \_\_\_\_ (to include) MySQL, Microsoft SQL Server, Oracle, etc. Flat file databases \_\_\_\_ (not / to represent) complex relationships between entities. Some real-life examples of flat databases \_\_\_\_ (to be) contact lists in a mobile phone.

**2. Fill in the gaps with a verb from the box in the correct Present Simple form.**

develop, require, support, see, help, deal, manage, have

1. A multiuser database \_\_\_\_\_ multiple users at the same time.
2. Database designers \_\_\_\_\_ the database structure.
3. Database systems \_\_\_\_\_ sophisticated hardware and software and highly skilled personnel.
4. The DBMS \_\_\_\_\_ to create an environment in which end users \_\_\_\_\_ better access to more and better-managed data.
5. Database administrators \_\_\_\_\_ the DBMS.
6. The user \_\_\_\_\_ the relational database as a collection of tables.
7. Linear Algebra \_\_\_\_\_ with linear equations, matrices, vectors, etc.

**3. Write questions about the things underlined in the sentences.**

1. Big data reflects the changing world we live in.
2. Typically, a database structure stores data in a tabular format.
3. Security rules determine which users can access the database.
4. The interface allows the user to interact with the data.
5. Corporations invest considerable amounts of time, effort, and money to ensure that corporate data are used properly.
6. The users employ SQL to create table structures.
7. Database systems require sophisticated hardware and software and highly skilled personnel.
8. The user sees the relational database as a collection of tables.

**4. Rewrite the sentences, changing the Present Simple Active forms into Passive forms.**

1. Organizations use large amounts of data.
2. You often see the standard acronym DBMS instead of the full name.
3. System analysts and programmers design and implement the application programs.
4. An upside-down tree represents the basic logical structure of the hierarchical model.
5. A DBMS provides security rules to determine access rights of users.
6. Database systems hold crucial company data.
7. Companies don't generally use the network database model today.

**5. Complete the sentences with the affirmative or negative Present Simple or Future Simple form of the verb in brackets.**

1. If you \_\_\_\_\_ (update) your database system you \_\_\_\_\_ (to maximize) its efficiency.



2. Database administrators \_\_\_\_ (not / produce) a useful database environment if a database design \_\_\_\_ (be) poor.
3. Next week if you \_\_\_\_ (not / have) the authorization to edit the data you \_\_\_\_ (have) to get an appropriate access level.
4. As soon as we check the database user permissions, we \_\_\_\_ (let) you know.
5. Next time in case of power failure special utilities within a database system \_\_\_\_ (provide) data recovery.
6. – Can you wait for me? It \_\_\_\_ (not / be) very long.
7. I'm sure Pavel \_\_\_\_ (get) the job. He \_\_\_\_ (have) a lot of experience.

**6. Write the Past Simple of the following verbs:**

drive	cut	retrieve	study
be	do	leave	have
store	begin	try	run
write	represent	make	create
take	give	hold	know
stop	go	understand	develop

**7. Find the past forms of 20 irregular verbs in the puzzle. Read across, down and diagonally.**

H	W	D	W	R	O	T	E	E
A	F	E	I	X	T	H	S	D
D	O	O	N	D	T	O	L	D
C	U	T	R	T	R	U	O	X
M	N	Z	X	G	O	G	S	K
E	D	C	N	C	O	H	A	S
A	X	A	L	E	F	T	I	O
N	R	M	I	X	U	Z	D	L
T	Z	E	S	P	O	K	E	D

**8. Complete the text with the Past Simple Active form of the verbs in brackets.**

Bill Gates \_\_\_\_ (to be born) in 1955 in Seattle, Washington. He \_\_\_\_ (to grow up) in an upper middle-class family. The Gates family atmosphere \_\_\_\_ (to be) warm and close, and all three children \_\_\_\_ (to be encouraged) to be competitive and strive for excellence. When Bill \_\_\_\_ (to turn) 13, his parents \_\_\_\_ (to enroll) him at Seattle's exclusive preparatory Lakeside School. At Lakeside School Gates \_\_\_\_ (to meet) Paul Allen. The pair \_\_\_\_ (to become) fast friends because of their common enthusiasm for computers. They both \_\_\_\_ (to spend) much time together working on programs. In 1970, at the age of 15, Bill Gates and Paul Allen \_\_\_\_ (to go) into business together, developing "Traf-o-Data", a computer program that \_\_\_\_ (to monitor) traffic patterns in Seattle. In 1975, Bill Gates and Paul Allen \_\_\_\_ (to form) Microsoft.

**9. Complete the text with the Past Simple and Present Simple (Active or Passive) forms of the verbs from the box.**

**attract, introduce, publish, consider, understand, publish, outline, follow**

The relational model \_\_\_\_ in 1970 by Edgar F. Codd, a British computer scientist with IBM. He \_\_\_\_ “A Relational Model of Data for Large Shared Data Banks.” At the time, the renowned paper \_\_\_\_ little interest, and few scientists \_\_\_\_ how Codd’s groundbreaking work would define the basic rules for relational data storage. Codd later \_\_\_\_ another paper that \_\_\_\_ the 12 rules that all databases must follow to be qualified as relational.

Many modern database systems (not) \_\_\_\_ all 12 rules, but these systems \_\_\_\_ relational because they conform to at least two of the 12 rules.

**10. Read the text and ask six different types of questions to it.**

Last year Rainbow company considered replacing spreadsheets with a database to help their business grow. They needed to keep track of the increased amount of customer data. Thus, the customer relationship management (CRM) database was developed by database designers. The CRM system provided a central place for storing all information and sharing it with other teams. The records were created and the history was tracked of all their interactions with the customers, including phone calls, emails, meetings, presentations and so on. The CRM database made the service more efficient, cost-effective and reliable.

**SPEAKING**

*Telephoning*

*Start-up*

Do you think you will have to make phone calls in English in your workplace?



**So, to make telephoning easier use some tips below:**

- try to speak clearly and don’t be afraid to speak more slowly than normal.
- think about what you want to say before calling.
- don’t be afraid to ask your caller to repeat themselves if you don’t understand.

**1. Mark the expressions F (formal) or I (informal). Then match the pairs of expressions that have a similar meaning.**

- a. Good morning.
- b. Hang on.
- c. Hello.
- d. Hold the line, please.
- e. May I help you?
- f. No problem.
- g. Thank you very much.
- h. Thanks a lot.
- i. What can I do for you?
- j. You're welcome.

**2. In your country, are telephone conversations between the people below usually formal or informal?**

- assistants and managers
- callers and receptionists
- colleagues
- customers and customer support
- customers and salespeople

**3. Listen to two telephone conversations and choose the correct answers.**

**LINK 1, LINK 2**

- 1. Mike and the receptionist are \_\_\_\_\_.
  - a) friends
  - b) colleagues
  - c) strangers
- 2. Mike and Paula are \_\_\_\_\_.
  - a) friends
  - b) colleagues
  - c) strangers
- 3. Sue is Paula's \_\_\_\_\_.
  - a) friend
  - b) colleague
  - c) boss
- 4. Sue is \_\_\_\_\_.
  - a) available
  - b) having lunch
  - c) in a meeting
- 5. Sue is Mike's \_\_\_\_\_.
  - a) friend
  - b) boss

- c) customer
6. When Sue calls back, Mike is \_\_\_\_\_.
- a) not available  
b) having lunch  
c) in a meeting

**4. With a partner, find suitable words to complete the useful expressions in the chart. Then listen again to LINK 1 and LINK 2 to check.**

Useful Expressions	
Starting	Introductions
Good morning. Can I _____ you? Could I _____ to Sue Downing, please? Is Sue _____, please? Is _____ Mike? Yes, _____.	It's Mike, _____ Pixkel. I'm _____ about ... It's Sue Downing, _____ your call.
Names	Messages
Could I _____ your name, please? _____ is Mike Woods, from Pixkel Inc.	Can I _____ a message? Could you _____ her to call me back? I'll ask her to _____ back to you as soon as the _____ is _____.
Connecting	Finishing
Just a _____, please. I'll put you _____. Would you _____ to _____ to her assistant? I'm sorry. She isn't _____ this morning.	Thanks for your help. - You're _____. Goodbye. Thank you for calling. Bye!

**5. a) Make statements joining parts from 1 and 2, adding reasons why your colleagues cannot take a telephone call.**

**b) Make questions using parts from 3 and 4.**

1	2	3	4
I'm afraid ...  I'm sorry, ...	she isn't available at the moment. he isn't at his desk. he's in a meeting. he .... she .... he .... she .... he ....	Would you like to ... Can I ... Could you ... Would you like me to ...	call back later? help you? take a message? hold for a few minutes? speak to someone else? leave a message? tell me what it's about? get her to call you back?

**6. Match sentences (1-5) with responses (a-e) to make a conversation about arranging a meeting to demonstrate a new product.**

1. Is Sue Downing there, please?
  2. This is Mike Woods from Pixkel.
  3. I'm calling about our new product. Can we arrange a meeting?
  4. How about tomorrow morning?
  5. I'm giving a presentation until 12, but I'm free after that.
- a) I'm sorry, I'm not working tomorrow. Is Friday possible?
  - b) Yes, all right. When are you free?
  - c) OK, let's meet at 12.30. We can have lunch in our cafeteria.
  - d) Hello, Mike. What can I do for you?
  - e) Yes, speaking.

**7. With a partner, use the flow chart to have a telephone conversation.**

Student A	Student B
1. Answer the phone (say your name or company).	2. Ask to speak to (choose a name).
3. Ask for the caller's name.	4. Say your name and company.
5. Say the person is not available, give a reason. Offer to help.	6. Respond.
7. Finish the call.	8. Finish the call.



**Role-play**

**Work with your partner. Read the task for either Student A or B. Roleplay telephone conversations between suppliers and customers.**

**Student A**

**Conversation 1:**

You are the supplier. Call an important customer, Ms. Ashley Mertens, to invite her for lunch. You know your customer is very busy. Offer to send a taxi to pick her up from her office. You are free every day except Friday (you have a sales meeting in Brussels). Student B starts by answering the phone.

**Conversation 2:**

You are the customer.

You are one of Joe Parker's colleagues. Joe is away on a business trip. You receive a call from a supplier. Offer to take a message. You start by answering the phone.

## Student B

### Conversation 1:

You are the customer. You are Ms. Ashley Mertens' personal assistant. You receive a call from a supplier. Ms. Mertens is travelling a lot this week: Monday - Prague, Tuesday - Berlin, Wednesday - Rome, Thursday - Vienna, Friday - Brussels. You start by answering the phone.

### Conversation 2:

You are the supplier. You work for Multiwheel. You are returning a call from Joe Parker, one of your regular customers who is having problems with your machines. Arrange a date to visit. Student A starts by answering the phone.

## WRITING

---

### *A Semi-Formal Letter of Congratulation*

Congratulation letters are letters written to praise others for their achievements or to express good wishes on a special occasion. Congratulation letters show others that you see their efforts and that you are proud of their achievements.

#### **1. Look at the different elements of a letter expressing congratulations.**

1. **Opening** - Tell why you are writing.
2. **Focus** - Personalize the information and be positive.
3. **Action** (optional) - Refer to the future.
4. **Closing** - Restate the main idea.

#### **2. Match the headings with corresponding parts of the letter below.**

Mr. Richard Yuan

Australia China Entrepreneurs Club

Dear Richard,

I wish to extend my sincerest congratulations on the 15<sup>th</sup> Anniversary of your company.

You can be very proud of the growth you have achieved in these years. Companies like yours with a brilliant team of dedicated workers and with a friendly work environment can only aim for high results. Working with you has been a real honor and we value each and every transaction and deal. You have always tried to provide the best products and services to customers.

We look forward to continuing our working relationship with your company.

Again, congratulations from all of us here at SecurityNow.com. We wish you and your company continued success and achievement for the coming years.

Yours sincerely,

Lisa Rivelli

National Manager of Strategic Partnerships

**3. Read these opening sentences for letters of congratulation. Then choose the closing sentence that best restates the main idea of the letter.**

1. Congratulations on your retirement.
  - a. When you first came to Acme, you worked in the mail room.
  - b. Thank you for your many years of fine service to Banswell, Inc.
  
2. Let me congratulate you on the opening of your new offices in Tokyo.
  - a. Your new branch in Japan shows that your hard work has paid off.
  - b. The region should provide you with a lot of opportunities.
  
3. Congratulations on being the Region's top sales rep this year.
  - a. Your sales were over one million dollars this year.
  - b. You make a positive impact on our company by creating a fun and caring work environment.
  
4. We congratulate you on winning the Customer Service Award.
  - a. It's clear that you have put in the hard work and dedication to ensure that customers receive proper care throughout the sales transactions.
  - b. We are just one of your new, and fully satisfied, customers.
  
5. All of us here at Winston and Bradley congratulate you on recent promotion to HR manager.
  - a. We will miss you, but I am grateful to have known and worked with you.
  - b. When you were an intern here with us, we knew you would be a great manager.



**Note:**

When you praise someone in a letter of congratulations, be specific. Avoid less specific words like *really*, *good*, *great*, *very*, and *a lot*.

**Compare the examples:**

Not specific: You did a really good job for Commercial Bank.  
Specific: Your many years of diligent service to Commercial Bank, and to the other banks where you've worked, show your commitment to quality banking in Egypt.

**4. Choose the sentence that is more specific.**

1.
  - a. You were a good teacher, and I learned a lot from you.
  - b. Your detailed explanations helped me learn more effectively.

2.
  - a. Your sales record looks really good, and your customers must be very happy.
  - b. With the highest European sales for the year, you are clearly keeping your customers happy.
3.
  - a. Your keen sense of timing and your careful research into market trends have made you one of Keeton's top marketers.
  - b. You are really good at marketing and do great research, so we voted you as the best marketer at Keeton's.
4.
  - a. Your communication skills and problem-solving techniques prove that you're a valuable employee to this company.
  - b. So, somebody recognized your talents, did they?
5.
  - a. Just as your offices are in other countries, your new Rome branch office will soon be a market leader.
  - b. Rome is a good place to be so your new office might just be a big success.
6.
  - a. It was a really good idea to promote you.
  - b. The entire team at Bombay Exports will benefit from your promotion.

**5. Write a letter to congratulate the client on his / her company's anniversary. Use the guidelines:**

1. Start by congratulating the client and stating the specific event that has moved you into writing this letter - their company's tenth anniversary.
2. Express praise of the achievement; compliment something unique about the customer or the company, for example, their faithful timely service and detailed communication with customers; mention their reputation among the competitors and their hard work.
3. Express your pleasure in doing business with them.
4. Conclude with best wishes from your company and good luck to the future of your business.





## LISTENING

---

### Database Tutorial for Beginners

#### SETTING THE CONTEXT

Could you name some situations when you deal with databases?

#### ACTIVATING VOCABULARY

Match the English words (phrases) with their Russian equivalents.

1. to keep track of smth	a) небольшой
2. to record	b) назначать, определять
3. redundant	c) следить за ходом чего-либо
4. shipment	d) проблема
5. to assign	e) записывать, фиксировать
6. purchase	f) запрос
7. entity	g) отправка (товаров); перевозка; поставка
8. query	h) товары, внесенные в опись, запасы
9. issue	i) сущность
10. bite-sized	j) излишний, избыточный
11. inventory	k) приобретение, покупка

Before proceeding to LISTENING COMPREHENSION section, please follow the [LINK](#) to watch the video.

#### LISTENING COMPREHENSION

1. Choose the best answer to these questions. Sometimes more than one correct option is possible.

1. Imagine that you run an online store. If you record the information about your customers in a spreadsheet you may \_\_\_\_\_.

- easily calculate your profit from sales
- get some contradicting values for your customer's details
- organize your orders by creating a relational database

2. What may happen if you don't keep track of your customer orders according to the video?

- Shipments could get sent to the wrong place.
- Customers might get mixed up.
- The wrong products could get sent to the wrong people.
- You may have to pay a penalty for underpayment of estimated tax.

3. It is advisable to keep the information about your online store in some bite-sized tables. These tables might list out \_\_\_\_\_.
  - a. all your profit
  - b. all your Customers
  - c. all your Products
  - d. all your Orders
4. A database consists of \_\_\_\_\_.
  - a. several cells
  - b. rows and columns
  - c. several tables connected to one another
5. After a customer checks out, we record all the contact info and \_\_\_\_\_.
  - a. send them an invoice
  - b. assign them a customer ID
  - c. send them a mailshot
6. The Product table lists out all your \_\_\_\_\_.
  - a. customers
  - b. sales
  - c. inventory
7. Database management systems typically don't give you the best options for \_\_\_\_\_.
  - a. optimizing the database performance
  - b. visualizing the connections between different tables
  - c. improving data sharing
8. It's pretty obvious that a database \_\_\_\_\_.
  - a. is far less efficient than a massive spreadsheet
  - b. is far more organized than a single spreadsheet
  - c. forms a robust handling of large amounts of data
9. In an ERD (Entity Relationship Diagram) \_\_\_\_\_.
  - a. each table translates into an attribute and column categories are listed as entities
  - b. each table translates into an entity and column categories are listed as attributes in their respective entity
  - c. None of the above.
10. If you create a visual representation of your database then \_\_\_\_\_.
  - a. it's much easier to spot database errors
  - b. you can see where you're getting duplicate data
  - c. you have to manually recreate your concept

**2. Match the words that go together in the video.**

1. to spot	a) all your customers
2. redundant	b) situation
3. shipping	c) values
4. to list out	d) database errors

5. to lead to a messy	e) data
6. to visualize through	f) from scratch
7. to separate the information into bite-sized	g) a purchase
8. contradicting	h) address
9. to start	i) relationship lines
10. to make	j) tables
11. to get duplicate	k) information

**3. Watch the 1<sup>st</sup> episode and complete the gaps with the missing information.**

1. If you open an online store you want to be able to \_\_\_\_\_ your sale.
2. Most people would just \_\_\_\_\_ and start putting in \_\_\_\_\_.
3. Mary's our \_\_\_\_\_, she buys a \_\_\_\_\_ and you \_\_\_\_\_.
4. And you just \_\_\_\_\_ for \_\_\_\_\_.
5. Now you've got \_\_\_\_\_, some \_\_\_\_\_ for your customer's \_\_\_\_\_.
6. And if your specialty cat store \_\_\_\_\_ these \_\_\_\_\_ just \_\_\_\_\_.

**4. Watch the 2<sup>nd</sup> episode and complete the gaps with the missing information.**

1. Instead of having just \_\_\_\_\_, you'd \_\_\_\_\_ the information into \_\_\_\_\_.
2. So, with our cat store, you might start by \_\_\_\_\_ that \_\_\_\_\_, then a \_\_\_\_\_, and then another \_\_\_\_\_.
3. This \_\_\_\_\_ you're pulling in in much \_\_\_\_\_.
4. So, here's what your \_\_\_\_\_ might \_\_\_\_\_.
5. Any change to her \_\_\_\_\_, \_\_\_\_\_, or even name can \_\_\_\_\_ in this one \_\_\_\_\_.
6. The Product table would have all your cat \_\_\_\_\_.
7. As you \_\_\_\_\_ or \_\_\_\_\_, this would be the one place where you'd \_\_\_\_\_.
8. Orders would \_\_\_\_\_ you make.
9. Now these tables although \_\_\_\_\_ have \_\_\_\_\_ and this is what \_\_\_\_\_.

**5. Discuss the following questions.**

1. What does the Customer table include?
2. What does the Product table list out?
3. What does the Order table consist of?
4. How is this system different from a single spreadsheet?
5. What is the disadvantage of a DBMS? Why?
6. What is the way out of this situation?

**6. Make a plan that outlines the main points of the video.**

**7. Summarize the main content of the video in 10-12 sentences.**

# UNIT 6

## GAME DEVELOPMENT

### START-UP

---

#### 1. Answer the questions.

1. Do you play computer games? If yes, name your favourite ones.
2. Do you know any games created by the Belarusian developers?



### VOCABULARY

---

#### 1. Match the words with their definitions.

- |                      |   |
|----------------------|---|
| 1) game development  | a) to write a program or set of instructions that tells a computer to do something  |
| 2) content           | b) a software development environment designed for people to build video games  |
| 3) to script         | c) a program or framework that lets you play sound files  |
| 4) sound engine      | d) computer software that provides an approximate simulation of certain physical systems, such as rigid body dynamics, soft body dynamics, and fluid dynamics, in the domains of computer graphics, video games and films |
| 5) software build    | e) a model of a real activity, created for training purposes or to solve a problem  |
| 6) physics engine    | f) a compiled version of a program  |
| 7) framework         | g) the experience of an individual who is fully involved in video game playing  |
| 8) game engine       | h) the process of making a video game   |
| 9) player engagement | i) everything that is contained within something  |
| 10) simulation       | j) a platform for developing software apps  |

#### 2. Match the synonyms given below.

- |                       |                        |
|-----------------------|------------------------|
| 1) to assist          | a) features            |
| 2) to be charged with | b) additional          |
| 3) supplemental       | c) to be developed for |
| 4) attributes         | d) achievement         |
| 5) to be designed for | e) to perform          |

- |                   |                       |
|-------------------|-----------------------|
| 6) accomplishment | f) launch             |
| 7) to execute     | g) from the beginning |
| 8) to resemble    | h) available          |
| 9) from scratch   | i) to change          |
| 10) accessible    | j) to look like       |
| 11) release       | k) to be assigned to  |
| 12) to alter      | l) to help            |

**3. Complete the sentences with the words from the box.**

**simulation, game engines, framework, supplemental, accomplishment, from scratch, player engagement, attribute**

1. Game developers are the people who create a game \_\_\_\_\_.
2. Astronauts are trained using space flight \_\_\_\_\_.
3. Organizational ability is an essential \_\_\_\_\_ for a good manager.
4. With a \_\_\_\_\_, the developer can add or replace features to give new functionality to the application.
5. Unreal and Unity are among the most popular \_\_\_\_\_.
6. If this works, it will be a major \_\_\_\_\_.
7. How can game developers maintain \_\_\_\_\_ after the level cap has been reached?
8. Teachers often create \_\_\_\_\_ materials for their classes.

**4. Complete the table with the appropriate derivatives. Pay attention to the meaning of the words.**

Verb	Noun	Adjective / Participle
engage		
		educational
	reward	
		supplemental
assist		
		special
	prediction	
		accomplished
simulate		
		indicative

**5. Complete the sentences with the appropriate derivative of the word given in capitals.**

1. All students agreed it was a lively, humorous debate and a \_\_\_\_\_ experience. (REWARD)
2. Jane offered me practical \_\_\_\_\_ with my research. (ASSIST)

3. He decided to \_\_\_\_\_ in the creation of a physics engine for video games.  
(SPECIAL)
4. Always \_\_\_\_\_ before moving into another lane. (INDICATIVE)
5. George is known for his lifelong \_\_\_\_\_ with computer science. (ENGAGE)
6. The ending to the film was just so \_\_\_\_\_. (PREDICTION)
7. Our efforts were directed towards the \_\_\_\_\_ of the work. (ACCOMPLISHED)
8. Cars are tested to see how much damage they suffer in \_\_\_\_\_ crashes.  
(SIMULATE)

## READING

---

### 1. Read the text and answer the questions.

1. What is a computer game?
2. What does game development include?
3. What positions are available in game development industry?
4. Games are developed only by large studios, aren't they?
5. What task is a video programmer primarily charged with?
6. What is a video programmer working on the sound engine dedicated to?
7. What is the challenge to the role of a sound designer?
8. What tasks are the video programmers developing graphics assigned to?
9. What does a physics engine define?
10. What game engines are used in game development?
11. How do game engines differ from game frameworks?

### Game Development

A computer game is interactive software that is used for entertainment, role playing and simulation. Game development is the art of creating computer games. It may involve concept generation, design, build, test and release of a game. While you create a game, it is important to think about the game mechanics, rewards, player engagement and level design.

A game developer could be a programmer, a sound designer, an artist, a designer or many other roles available in the industry. Game development can be undertaken by a large game development studio or by a single individual.

A video programmer, also known as a game software engineer or a video game programmer, develops video games intended for entertainment or educational purposes. While there are usually several layers to this position, a video programmer is primarily charged with the task of writing the code that runs the game and directs probable outcomes of play. They are also involved in scripting supplemental components, such as development tools and computer assisted software to establish the game's platform and interface capability, as well as to develop its architecture. Typically, a team of programmers works together in the production of a single video game. However, many video programmers specialize in a specific area of development.

For example, a video programmer may be dedicated to working exclusively on the sound engine of a video game, including writing script to project 3D positional sound, what is more commonly known as surround sound. The challenge to this role is developing code to drive specific sounds and variations in sound to reflect the attributes of certain characters in the game and the actions they perform, as well as to indicate the level of play or goal accomplishment.

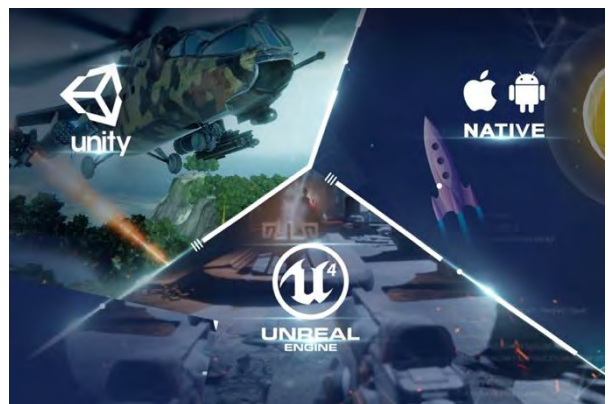
In contrast, a video programmer may be assigned to concentrate on developing the graphics for a game. Depending on the device the game is designed for, the programmer may be asked to develop two dimensional (2D) or three dimensional (3D) graphics. The former is usually reserved for handheld games, and cell phones. In the case of the latter, the video programmer may specialize in creating code to execute advanced 3D graphic effects for more realistic appearance.

Some video programmers specialize in animation, which involves developing a predictable set of physics laws that may or may not resemble those found in the natural world. Also known as dynamical simulation, this aspect of game development is attributed to the creation of a physics engine, which defines how certain characters and objects will move in a given environment and how they will behave when that environment is altered due to an event taking place in the game.

To resolve problems that game frameworks had, tools like libGDX and OpenGL were developed. They helped game development to be a lot faster and easier, providing lots of pre-made functions and features. However, it was still hard to enter the industry or understand a framework for someone coming from a non-programmer background, a common case in the game development scene.

Then game engines like Construct, Game Maker, Unity and Unreal were developed. Generally, an engine has everything that a framework had, but with a friendlier approach by using a graphic user interface (GUI) and helping with the graphic development of the game.

In some cases, like Game Maker and Construct, the amount of pre-made functions are so big that people with no previous programming skills could build a game from scratch, really expanding the scene and making game development accessible for almost anyone [35, 36].



## 2. Read the text again and say whether these statements are true or false.

1. A computer game lets the player interact with content and manipulate the game's elements.
2. Game development is the art of creating games and describes the design, development and release of a game.
3. Video games are intended only for entertainment.
4. Different areas of game development demand video programmers who are engaged in the task of writing code.

5. The video programmers working on the sound engine write code to project 3D graphic effects.
6. Almost all video games fall into the 2D or 3D graphical style.
7. A physics engine is used to model the behavior of objects in space.
8. Game frameworks are easier to understand and work with compared to game engines.
9. People with no previous programming skills could build a game from scratch using game engines.

### 3. Choose the correct word in bold.

1. Game development involves concept **accomplishment** / **generation**, design, build, test and **release** / **realize** of a game.
2. During the game a player interacts with **contest** / **content** and manipulates the game's elements.
3. Game developers have to think about game mechanics, rewards and player **appearance** / **engagement**.
4. Video programmers working on the **sound** / **physics** engine develop code to drive specific sounds.
5. With game engines like Unity and Construct game development has become **executable** / **accessible** for almost anyone.
6. Today people with non-programmer **background** / **underground** could build a game from **simulation** / **scratch**.

### 4. Fill in the gaps with the right preposition from the box.

on (x2), with (x2), to (x2), from, in (x2)

1. to be charged \_\_\_\_ the task of writing the code;
2. to specialize \_\_\_\_ creating code;
3. to concentrate \_\_\_\_ developing the graphics for a game;
4. to be dedicated \_\_\_\_ working \_\_\_\_ the sound engine;
5. to be involved \_\_\_\_ scripting supplemental components;
6. to interact \_\_\_\_ content;
7. to build a game \_\_\_\_ scratch;
8. the challenge \_\_\_\_ the role.

### 5. Match the words that go together in the text.

- |                     |                                |
|---------------------|--------------------------------|
| 1. to manipulate    | a. to project 3D sound         |
| 2. game development | b. the level of play           |
| 3. to execute       | c. studio                      |
| 4. pre-made         | d. programming skills          |
| 5. non-programmer   | e. advanced 3D graphic effects |
| 6. to reflect       | f. function and features       |



- |                     |   |
|---------------------|---|
| 7. with no previous | g. the game's elements                  |
| 8. to write script  | h. background                           |
| 9. to establish     | i. the attributes of certain characters |
| 10. to indicate     | j. the game's platform                  |

6. Make two sentences with any word combinations from Exercises 4 and 5.

7. Develop the ideas about Game Development using the Mind Map. Follow the [LINK](#).

8. Make a short summary of the text.

## LANGUAGE FOCUS

---

### PROGRESSIVE TENSE FORMS

Consult grammar rule using the [LINK](#).

1. Choose the correct form of Present Progressive (Active or Passive):

1. The popularity of the video game development field *is being boomed / are booming / is booming* these days.
2. Amazing progress *is making / is being made / are being made* in the industry of game development at present.
3. I *is learning / am being learnt / am learning* specific skills through technical tutorial on the topic AR Photography with Unity Toolkit.
4. Nowadays real-time 3D projects *are building / are being built / is being built* with the help of Unity.
5. Our game designers *are being dealt / are being dealing / are dealing* with a new game concept this week.
6. Game studios *are always being looked / are always looking / are always being looking* for great programming talent.
7. Some adjustments *is making / are making / are being made* to the game mechanics right now.
8. In game design teams you *is collaborating / are being collaborating / are collaborating* all day with other team members.
9. Our studio *are being used / is being used / is using* C# for coding in Unity.
10. I *am focusing / are focusing / am being focused* on learning Java because it's a very dynamic language with lots of applications.

**2. Change the verb into the correct form of Present Progressive (Active or Passive):**

1. Denis \_\_\_\_ (to study) to be a game programmer.
2. They \_\_\_\_ (to use) Unity to simulate new building designs in interactive 3D space.
3. \_\_\_\_ Julia (to start) a new game development course tomorrow?
4. Unity 3D game engine tools \_\_\_\_ (to learn) by a great number of individuals these days.
5. The designers \_\_\_\_ (to brainstorm) the initial vision for a game right now.
6. \_\_\_\_ you (to have) a better understanding of the Unity 3D editor now?
7. Godot engine has a community that \_\_\_\_ constantly (to fix) bugs and (to develop) new features.
8. \_\_\_\_ Nick (to look) for a game developer position?
9. Steam games \_\_\_\_ constantly (to improve) with the gamers' feedback.
10. Nowadays Artificial Intelligence \_\_\_\_ (to enter) a new growth phase.

**3. Choose the right tense form (Present, Past or Future Progressive).**

1. Nowadays the popularity of game development *was only increasing / will only be increasing / is only increasing*.
2. All day tomorrow we *are being tested / will be testing / were tested* the game to make sure it runs smoothly.
3. When I *am planning / will be planning / was planning* a game I joined a channel of game designers.
4. This evening at 7p.m. Andrew *was playing / will be playing / is being played* CS:GO.
5. The RPG (role-playing game) genre *is expanding / were expanding / was being expanded* with new games releasing on a monthly basis.
6. I *will be watching / is watching / is being watched* the latest video uploads on the Construct YouTube channel tonight.
7. DOTA 2 *was currently being played / will currently be playing / is currently being played* by most of my friends.
8. A new mobile app *is developing / was being developed / was developing* by our team the whole last month.

**4. Write questions about the things underlined in the sentences.**

1. Cloud computing is completely changing our society.
2. Ann was working hard the whole last week to complete the project.
3. Philip will be learning the Unity 3D game engine tools at tomorrow's seminar.
4. The selection of games for Linux is being risen these days.
5. About 7000 games for MacOS are currently being supported by Steam platform.
6. Many people are starting to replace regular laptops with smaller, more mobile devices.
7. Our team will be discussing the game prototypes from 2 till 5 p.m. tomorrow.

8. The world's largest car manufacturers are exploring innovative ways to speed up and enhance the design process.
9. DVD disks are constantly being pushed back by more convenient online game stores.
10. Alexander was trying to sell his laptop the whole last month.

**5. Fill in the gaps with a verb from the box in the correct Past Progressive form (Active or Passive) or Future Progressive.**

**play, discuss, fix, practice, talk, improve, chat, work, test, focus**

1. I remember, when designing one of my mobile games, I \_\_\_\_ on a way to allow players to switch easily between weapons.
2. Tonight at 8 p.m. as Denis \_\_\_\_ the bugs, Pavel \_\_\_\_ the graphics.
3. Every time a new major element was added, the game \_\_\_\_.
4. Tomorrow at this time we \_\_\_\_ on better game interaction with a player.
5. Yesterday while Max \_\_\_\_ Dota 2, Nick \_\_\_\_ to his friend.
6. All day yesterday the issues relating to Game Design Patterns \_\_\_\_.
7. I \_\_\_\_ building a game through a tutorial with Unity all evening yesterday.
8. Tomorrow at this time, the designers \_\_\_\_ about the game mechanics and the flow of the game.

**6. Complete the sentences with the correct Progressive tense form (Active or Passive) of the verbs in brackets.**

1. Next week at this time we \_\_\_\_ (to work) hard to get this project done.
2. Dota \_\_\_\_ constantly (to evolve), but it's never too late to join.
3. Many things about game development \_\_\_\_ (to become) extremely easy with today's game engines.
4. Tomorrow from 3 to 5 p.m. they \_\_\_\_ (to adjust) the game physics.
5. Fiber optic cable and the infrastructure for 5G \_\_\_\_ currently (to deploy) by the company across the country.
6. Microsoft security engineers \_\_\_\_ constantly (to adjust) their security approach.
7. Yesterday while Pavel \_\_\_\_ (to visualize) data and locations, Alexander \_\_\_\_ (to build) various levels.
8. I \_\_\_\_ (to plan) to use an already-made game engine as it provides a wide range of functionalities.
9. 3D modeling of characters and objects \_\_\_\_ (to create) the whole last month.
10. Tomorrow as David \_\_\_\_ (to fix) the problem with the code, we \_\_\_\_ (to make) adjustments to the game mechanics.
11. Now they \_\_\_\_ (to partner) with the leading providers of online education.
12. Currently optical drives \_\_\_\_ (to drop) from pre-made computers and laptops by hardware manufacturers.

## 7. Correct the mistakes.

1. If you're on a team, you are being worked with loads of other people who have different backgrounds.
2. Our game developers will be determined the initial game requirements when you come.
3. Yesterday from 9 to 11 a.m. I am reading the fantastic The Art of Game Design by Jess Schell.
4. The world of automotive design is being changed rapidly these days.
5. AAA (Triple-A) game commonly denotes that a game are publishing by a large, established publisher.
6. All day tomorrow our team was being developed the game interface.
7. When the customer came the app was still testing.
8. Microsoft has research labs that is working on a number of breakthrough technologies to improve cybersecurity.

## SPEAKING

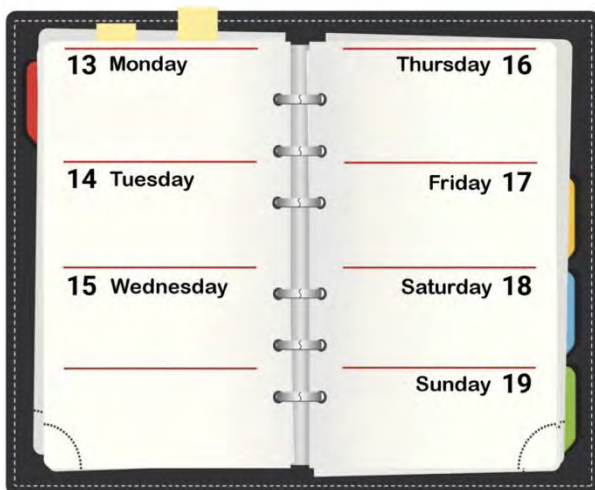
---

### Arranging to Meet on the Phone

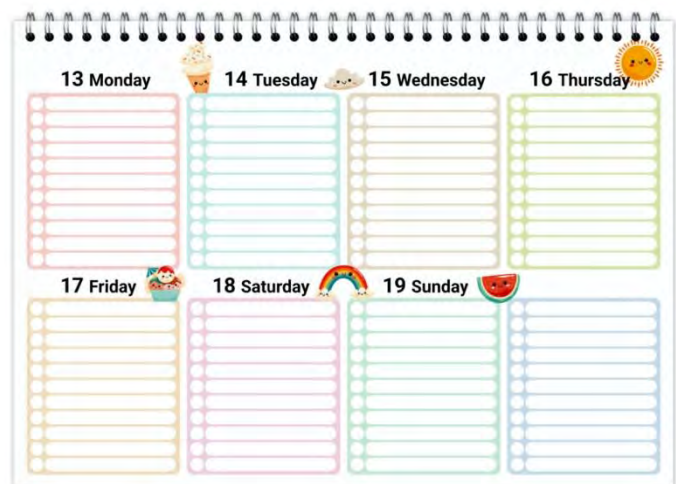
Have you ever made any arrangements on the phone? What did you find difficult?

1. a) Listen to Sharon and John, arranging to meet, and make notes in their diaries. For each day, write (*B*) if they are busy, (*F*) if they are free and (?) if they don't say. It is Monday morning. [LINK](#)

John's diary



Sharon's diary



- b) When do they arrange to meet?

2. Listen to the conversation again and complete the table with appropriate words.

Asking about a day / time to meet	Saying you are free / not free
1. So, when _____ be _____ for you? 2. _____ you be _____ to _____ it on _____? 3. How _____ _____ afternoon? 4. _____ you _____ it at _____ _____?	1. I'm _____ today or _____. 2. _____ morning would _____ be _____. 3. I'm actually all _____ up _____. 4. No, _____, I'm _____ that day. 5. I'm not _____ again till _____. 6. Yes, that _____ be _____. 7. Yes, that's _____.
Checking information	Showing understanding
1. Let's _____, _____, that's the _____, isn't it? 2. I think we _____ to do this _____, _____ we? 3. Your _____ is at the top of Salisbury _____, _____ it?	1. If _____. 2. Right. 3. Oh, I _____. 4. Don't _____.
Correcting information	
1. No, we _____ _____ fifteen, actually.	



### Role-play

3. Work with your partner. Discuss the appointment time.

**Student A:** You need to telephone your doctor. You have an appointment on Tuesday the 3<sup>rd</sup> at 17.30 but you need to move it to Thursday the 5<sup>th</sup> at 16.00. On Monday the 9<sup>th</sup> you are busy all day, but Tuesday the 10<sup>th</sup> you have a free day. Telephone the Medical centre and speak to the receptionist. Make a new appointment with the doctor.

**Student B:** You are the receptionist at Medical centre. You have no free appointments on Thursday the 5<sup>th</sup> as the doctor will be away that day. The next day the doctor is free is Monday the 9<sup>th</sup>. Answer the telephone and help the patient make a new appointment.

## WRITING

---

### Comparing Two Charts

Learn how to write about and compare two pie charts.

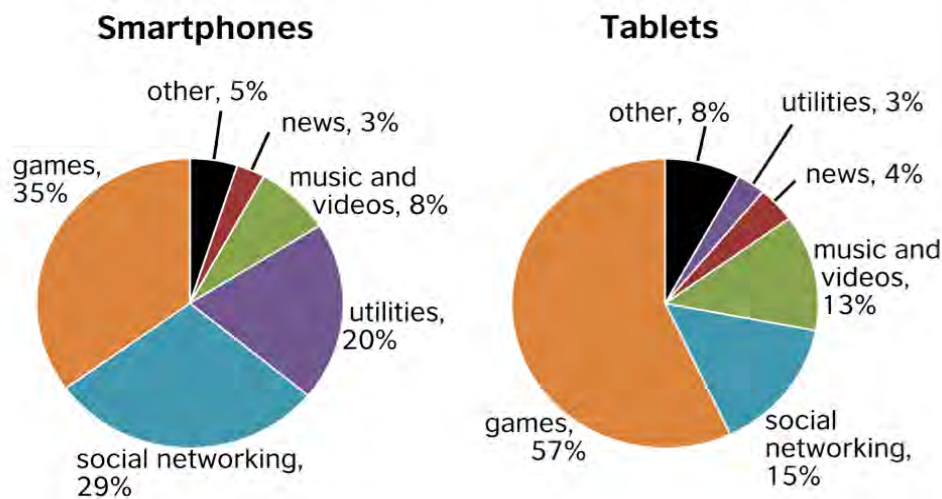
**1. Match the words (1–6) with the definitions (a–f).**

1. gaming	a. in the same way
2. purpose	b. to show
3. to illustrate	c. playing video games
4. figure	d. however
5. similarly	e. number
6. in contrast	f. aim

**2. Read the text and tips and do the exercises.**

#### Comparing two charts

**Time spent on smartphones and tablets, by category**



Overall, the two pie charts show that smartphones and tablets are used for the same purposes but to very different extents.

The first pie chart shows how people spend their time on smartphones while the second pie chart illustrates how time is spent on tablets. For both types of device, the top use is for games, but the figures differ greatly. 57% of the time spent on a tablet is given to playing games, while only 35% of the time spent on a smartphone is used for this.

In contrast, smartphone users spend 29% of their time on their gadget accessing social networking sites compared with just 15% of tablet time spent on the same activity.

The third most popular use of the tablet is for consuming entertainment, with users spending 13% of their tablet time watching videos and listening to music. Smartphone users, however, dedicate only 8% of their smartphone time to such entertainment, preferring instead to spend 20% of their time on their phone accessing utilities. These can include maps, weather information and calculators.

There is a clear difference in the way people are using their smartphones and tablets. In general, while tablets are being used more for gaming and other forms of entertainment, smartphones seem to be the preferred option for tasks as well as communication with the world around us.



**Tips**

1. Before writing about the detailed figures, give an overview of what the graphs or charts represent.
2. We should try to compare and contrast the charts, rather than talk about each one separately.
3. Say precisely what the data refers to. There is a difference between, for example, a user spending 57% of *their time* on games and a user spending 57% of *their tablet time* on games. (You can write % or per cent, but be consistent.)
4. You don't need to describe all the information in the diagrams. Select the most important things.
5. Don't repeat vocabulary. Use different words and phrases with the same or similar meanings, e.g. *playing games* = *gaming*.
5. Use *similarly*, *in the same way* or *also* to show similarities.
6. Use *however*, *in contrast*, *but*, *while* or *instead* to show differences.

**3. Put these words in the correct group.**

in the same way / in contrast / instead / however / as well / in addition / but / similarly / also / while

<b>Showing similarities</b>	<b>Showing differences</b>
-----------------------------	----------------------------

**4. Complete the sentences with the words from the box.**

**Instead, Similarly, However, while, contrast, as well**

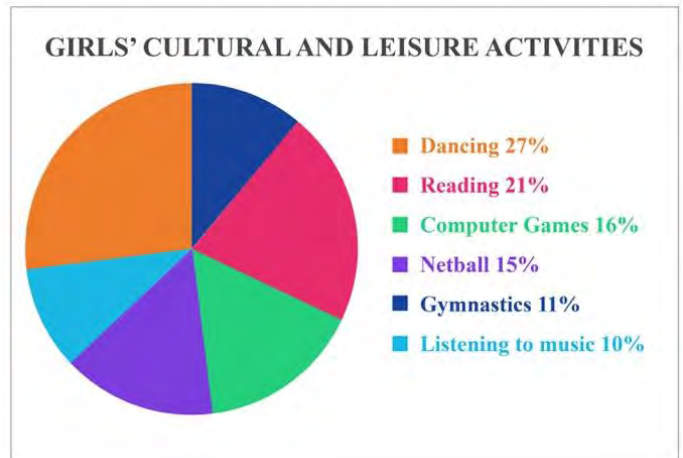
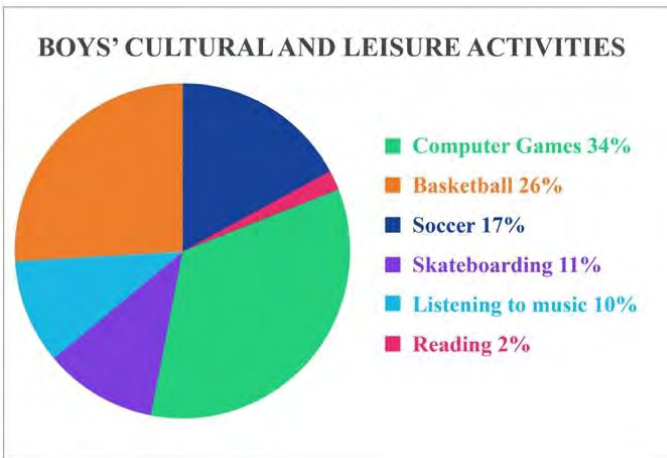
1. Both tablet usage and smart phone usage are growing. \_\_\_\_\_, they are used in very different ways.
2. Fewer people watch television in the evenings now \_\_\_\_\_, for entertainment, they use their tablets.
3. Over a quarter of time spent on smartphones is on social networking sites. In \_\_\_\_\_, only 15% of tablet time is used for social media.
4. Younger people like shopping on their tablets, but they often use their smartphones to buy things \_\_\_\_\_.

5. Tablet users spend the majority of their time on the device playing games. \_\_\_\_\_, gaming is the top use for smartphones.

6. People use smartphones more for communication, \_\_\_\_\_ tablets are preferred for entertainment.

5. The pie graphs below show the result of a survey of children’s activities. The first graph shows the time spent by boys on cultural and leisure activities, whereas the second graph illustrates the time that girls spend on these activities.

Write a report for a university lecturer and report the main features, and make comparisons where relevant. You should write at least 150 words.



Useful phrases below might help you.

to account for 5% of ... / the percentage of ... is 10%

Comparison	Addition	Generalising	Summarizing
Equally	In addition,	On the whole,	Finally,
In the same way	Furthermore,	In general,	Last of all
Similarly,	Along with	To some extent	To sum up
In comparison with	Also	In many ways	All in all,
Compared with	As well	Overall,	
In contrast,	Moreover,		
While			
Instead			
However,			



## LISTENING

---

### *How to Become a Video Game Programmer*

#### **SETTING THE CONTEXT**

1. Do you have any idea what the difference between a gamer and an e-sports athlete is?
2. What skills do you need to be involved in game programming?
3. Do you agree that creating a game involves a lot of time, energy, dedication and passion?
4. Would you like to work for a game development studio?

#### **ACTIVATING VOCABULARY**

##### **1. Match the English words (phrases) with their Russian equivalents.**

1. entry-level	a. преуспевать
2. proficient	b. демонстрировать
3. to be fluent in language	c. возможный
4. to exhibit	d. желанный
5. collision	e. свободно владеть языком
6. to handle	f. управлять, регулировать
7. to succeed	g. опытный
8. coveted	h. установленный
9. set	i. столкновение
10. feasible	j. начальный

##### **2. Match the words having a similar meaning.**

1. daily	a. to cut down
2. to exhibit	b. adept
3. to handle	c. day-to-day
4. feasible	d. greatly desired
5. implementation	e. to operate
6. coveted	f. realizable
7. set	g. to oversee
8. to decrease	h. established
9. proficient	i. fulfillment
10. to supervise	j. to display

**Before proceeding to LISTENING COMPREHENSION section, please follow the [LINK](#) to watch the video.**

## ***LISTENING COMPREHENSION***

### **1. Choose the best answer, sometimes more than one correct option is possible.**

1. A game programmer is a software engineer who \_\_\_\_\_.
  - a. determines the layout, content and navigation of a game's interface
  - b. prototypes potential gameplay ideas
  - c. develops code bases, game engine technology, AI or other related tools
  - d. is responsible for finding defects in the game
2. The most coveted position for game programmers is \_\_\_\_\_.
  - a. an AI programmer
  - b. a Generalist programmer
  - c. an Engine programmer
  - d. a Technical director
  - e. an Art director
3. The Technical director \_\_\_\_\_.
  - a. supervises the programming team
  - b. runs the programming department
  - c. focuses on technical design for the project and its implementation
  - d. manages daily programming process
  - e. is responsible for high-level tasks such as selecting tools, hardware, and code standards
4. To become a Technical director you \_\_\_\_\_.
  - a. must have at least 2 years of professional experience
  - b. don't need any set years of experience
  - c. must have a minimum of 5 to 10 years game industry programming, leadership or management experience
5. The Lead programmer \_\_\_\_\_.
  - a. runs the programming department
  - b. supervises the programming team
  - c. manages the day-to-day tasks of the programming team
  - d. creates or alters the base engine of the game
  - e. in a small studio is responsible for setting the technical standards of the game
6. To succeed in the Lead programmer position you'll need \_\_\_\_\_.
  - a. 5 years of prior experience
  - b. at least 2 years of professional experience
  - c. good communication and time management skills
  - d. general knowledge of all the areas of game programming and technology
7. Engine programmers focus on \_\_\_\_\_.
  - a. setting the technical standards of the game
  - b. creating or modifying the game engine to simulate physics, graphics, display of the game
  - c. creating behaviors that give the impression of intelligent behavior
  - d. creating all the visual elements (characters, buildings, environment) associated with the game

8. An Engine programmer \_\_\_\_\_.
- is an entry-level position
  - must be fluent in multiple programming languages
  - must have at least 2 years of professional experience
  - must have 5 years of prior experience
  - must be proficient with assembly and microcode programming for various

CPU cores

9. The Artificial Intelligence programmer is responsible for \_\_\_\_\_.
- creating behaviors that give the impression of intelligent behavior
  - creating all the visual elements (characters, buildings, environment)

associated with the game

- creating code and algorithms to simulate logical response to stimulus
- modifying the game engine to customize it for a particular game

10. Non-playable characters include \_\_\_\_\_.

- Dynamic pathfinding
- Buildings
- Strategic planning
- Vehicles
- Group movement and cooperation
- Interactive dialogues

11. Generalist programmer \_\_\_\_\_.

- is able to switch between creating core game elements to AI
- manages the day-to-day tasks of the programming team
- communicates the artistic vision of the game
- is adept in several areas of coding
- is proficient in multiple scripting languages
- must have at least 2 years of professional experience

## 2. Match the words that go together in the video to make phrases.

1. to supervise	a. detection
2. to simulate	b. internally
3. collision	c. department
4. open	d. the programming team
5. time	e. studios
6. the most coveted	f. logic response
7. indie	g. source
8. programming	h. position
9. to promote	i. management skills

## 3. Discuss the following questions:

- Who does the Lead programmer work closely with? Why?
- Who do AI programmers work closely with? Why?

3. What level of education is required for programmers by game development studios?
  4. What soft skills are necessary for all roles in game development industry?
  5. Why are skilled generalists highly sought?
- 4. Make a plan that outlines the main points of the video.**
  - 5. Summarize the main content of the video in 10-12 sentences using the plan.**



# UNIT 7

## ALGORITHMS. PROGRAMMING LANGUAGES

### START-UP

---

#### 1. Answer the questions.

1. Could you give any examples of using algorithms in your life? Do you know any types of them?

2. What programming languages are you fluent in? What is your favorite one?

3. What languages are the most difficult to master in your opinion?



### VOCABULARY

---

#### 1. Match the words with their definitions.

- |                 |  |
|-----------------|--|
| 1) loop         | a) a person's name written in a distinctive way as a form of identification in authorizing a document                                |
| 2) flowchart    | b) an activity of buying and selling, especially on a large scale, on the Internet   |
| 3) to execute   | c) a particular order in which related events, movements, or things follow each other  |
| 4) ubiquitous   | d) the science or study of analyzing and deciphering codes, ciphers  |
| 5) e-commerce   | e) a diagram, often using geometric symbols, showing steps in a sequence of operations, as in manufacturing or in a computer program |
| 6) cryptography | f) having the ability to be everywhere   |
| 7) sequence     | g) to carry out, to perform  |
| 8) signature    | h) a series of instructions in a program, performed repeatedly until some specified condition is satisfied                           |

#### 2. Match the synonyms given below.

- |                  |                 |
|------------------|-----------------|
| 1. selection     | a. to place     |
| 2. ubiquitous    | b. main         |
| 3. sophisticated | c. insufficient |
| 4. to allocate   | d. team         |
| 5. scarce        | e. widespread   |
| 6. beneficial    | f. choice       |

- |                |                |
|----------------|----------------|
| 7. core        | g. to retrieve |
| 8. to assign   | h. advanced    |
| 9. profit      | i. useful      |
| 10. crew       | j. income      |
| 11. to extract | k. to appoint  |

**3. Use the words in the box to complete the sentences and make any necessary changes.**

**sophisticated, ubiquitous, flowchart, allocate, feature, scarce, determine, enterprise, execute**

1. I've added some new \_\_\_\_\_ to my website.
2. Skilled workers were becoming increasingly \_\_\_\_\_.
3. A large sum has been \_\_\_\_\_ for buying new books for the library.
4. The software translates program from one language a human can read and understand to language a computer can \_\_\_\_\_.
5. I think a more \_\_\_\_\_ approach is needed to solve this problem.
6. My aim was first of all to \_\_\_\_\_ what I should do next.
7. They run a family \_\_\_\_\_ in their local town.
8. The company's logo has become \_\_\_\_\_ all over the world.
9. Work instructions are documents, often in the form of \_\_\_\_\_, which guide individual designers in performing tasks.

**4. Complete the table with the appropriate derivatives. Pay attention to the meaning of the words.**

Verb	Noun	Adjective / Participle
	execution	
		representative
select		
		repetitive
	privacy	
digitize		
	analysis	
		manipulative
		signed
continue		

**5. Complete the sentences with the appropriate derivative of the word given in capitals.**

1. We need to \_\_\_\_\_ what went wrong. (ANALYSIS)
2. The project is a joint venture between the public and \_\_\_\_\_ sectors. (PRIVACY)

3. You must put your \_\_\_\_\_ on the document. (SIGNED)
4. Today's personal computers can \_\_\_\_\_ instructions in less than one millionth of a second. (EXECUTION)
5. Once you have made your \_\_\_\_\_, click Save Changes. (SELECT)
6. The \_\_\_\_\_ age has transformed how information is accessed and retrieved. (DIGITIZE)
7. Special software is needed to \_\_\_\_\_ the mass of data. (MANIPULATIVE)
8. The \_\_\_\_\_ of the meeting was delayed until the next day. (CONTINUE)

## READING

---

### 1. Read the text and answer the questions.

1. What is an algorithm?
2. What are the main features of an algorithm?
3. How are algorithms classified?
4. How is a sequence algorithm represented and executed?
5. How is a branching type represented and executed?
6. How is a loop type represented and executed?
7. What is used to represent an algorithm for visual understanding?
8. What is a flowchart?
9. How are algorithms used in scientific projects?
10. Give examples of applying algorithms on the Internet.
11. How do algorithms assist in e-commerce?
12. How are algorithms used in manufacturing and public service sector?

### Algorithms

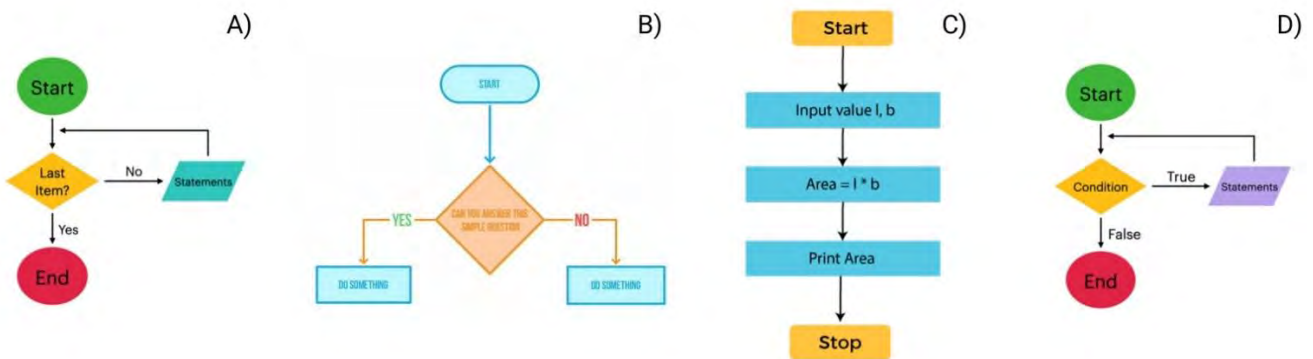
An algorithm can be defined as "A sequence of steps to be carried out for a required output from a certain given input". There are 3 main features of an algorithm from its definition:

1. The essential aim of an algorithm is to get a specific output.
2. An algorithm involves several continuous steps.
3. The output comes after the algorithm finished the whole process.

Algorithms can be classified into 3 types based on their structures:

1. Sequence: this type of algorithm is characterized with a series of steps, and each step will be executed one after another.
2. Branching: this type of algorithm is represented by the "if-then" problems. If a condition is true, the output will be A, if the condition is false, the output will be B. This algorithm type is also known as "selection type".
3. Loop: for this type, the process might be repeatedly executed under a certain condition. It is represented by "while" and "for" problems. But make sure the process will end after a number of loops under the condition. This algorithm type is also known as "repetition type".

## Name the types of algorithms presented in the pictures:



## Applications of algorithms

Algorithms can be used in many areas, and they are often represented in flowchart form for visual understanding. In other words, a flowchart is a diagram that represents an algorithm, showing the steps in various boxes and displays the process by connecting the boxes together.

Practical applications of algorithms are ubiquitous and include the following examples:

The Human Genome Project has made great progress toward the goals of identifying all the 100,000 genes in human DNA, determining the sequences of the 3 billion chemical base pairs that make up human DNA, storing this information in databases, and developing tools for data analysis. Each of these steps requires sophisticated algorithms. The savings are in time, both human and machine, and in money, as more information can be extracted from laboratory techniques.

The Internet enables people all around the world to quickly access and retrieve large amounts of information. With the aid of clever algorithms, sites on the Internet are able to manage and manipulate this large volume of data. Examples of problems that make essential use of algorithms include finding good routes on which the data will be, and using a search engine to quickly find pages on which particular information resides.

Electronic commerce enables goods and services to be exchanged electronically, and it depends on the privacy of personal information such as credit card numbers, passwords, and bank statements. The core technologies used in electronic commerce include public-key cryptography and digital signatures which are based on numerical algorithms and number theory.

Manufacturing and other commercial enterprises often need to allocate scarce resources in the most beneficial way. An oil company may wish to know where to place its wells in order to maximize its expected profit. An airline may wish to assign crews to flights in the least expensive way possible, making sure that each flight is covered and that government regulations regarding crew scheduling are met. An Internet service provider may wish to determine where to place additional resources in order to serve its customers more effectively. These are just a few examples where algorithms are most useful [20, 32].



**2. Read the text again and say whether these statements are true or false.**

1. An algorithm follows the steps to get an input for a given output.
2. A sequence algorithm is repeatedly executed under a certain condition.
3. Branching is an example of "repetition type" algorithm.
4. Practical applications of algorithms are limited.
5. Sophisticated algorithms save time and human and machine resources.
6. Electronic commerce makes use of the core technologies including public-key cryptography and digital signatures.
7. Public information includes credit card numbers and passwords.
8. An Internet service provider may wish to assign crews to flights in the least expensive way.

**3. Match the words that go together in the text.**

- |                         |                              |
|-------------------------|------------------------------|
| 1. human                | a. cryptography              |
| 2. to be represented by | b. of clever algorithms      |
| 3. to maximize          | c. under a certain condition |
| 4. to get               | d. great progress            |
| 5. public-key           | e. of steps                  |
| 6. to allocate          | f. DNA                       |
| 7. a sequence           | g. profit                    |
| 8. to be executed       | h. a specific output         |
| 9. to make              | i. scarce resources          |
| 10. with the aid        | j. "if-then" problems        |

**4. Make two sentences with any word combinations from Exercise 3.**

**5. Develop the ideas about Algorithms with the help of the Mind Map. Follow the [LINK](#).**

**6. Make a short summary of the text.**

**LANGUAGE FOCUS**

---

**PERFECT TENSES**

**Consult grammar rule using the [LINK](#).**

**1. Say what these people have done using Present Perfect.**

*Example:* Anton / send / the latest changes to the project / just  
He has just sent the latest changes to the project.

1. I / start / learning Python / already.
2. Denis / create / his first Unity 3D project / just.
3. They / be / interested in web development / several years / for.

4. Dota 2 / be / part of my life / 2015 / since.
5. JavaScript / gain / a lot of popularity / the last few years / over.
6. Google / give / more than \$250 million toward education / 2005 / since.
7. Many organizations / incorporate / AI into key processes and services / recently.
8. I / not develop / the algorithm to test the code / yet.

**2. Complete the sentences with *for* or *since*.**

1. We've been friends \_\_\_\_\_ we started learning at the university.
2. I haven't seen Victor \_\_\_\_\_ ages.
3. He has worked for this company \_\_\_\_\_ January.
4. Lisa has been at the laboratory class \_\_\_\_\_ this morning.
5. A new app has been developed by a programming team \_\_\_\_\_ a month already.
6. A group of students has worked on this project \_\_\_\_\_ the beginning of the term.
7. I have known him \_\_\_\_\_ 5 years.
8. They've learnt Python \_\_\_\_\_ several weeks already.

**3. Discuss the following questions with your partner. Use *for* or *since* in your answers.**

1. How long have you studied at the university?
2. How long have you stayed in the hall of residence?
3. How long have you lived in Minsk?
4. How long have you had your smartphone?
5. How long have you learnt English?
6. How long have you had your laptop?

**4. Think of explanations for these situations. Use the verb given.**

**Example:** There's oil on Nick's hands. (*repair the car*)

He has repaired the car.

1. Sergey is looking for his key. He can't find it. (*lose*)
2. Helen looks very tired. (*work hard*)
3. Your boss looks irritated. (*learn the data on the company's income*)
4. The car has stopped. (*run out of petrol*)
5. Andrew is very happy. (*pass a driving test*)
6. Your boss feels satisfied. (*sign a business contract*)

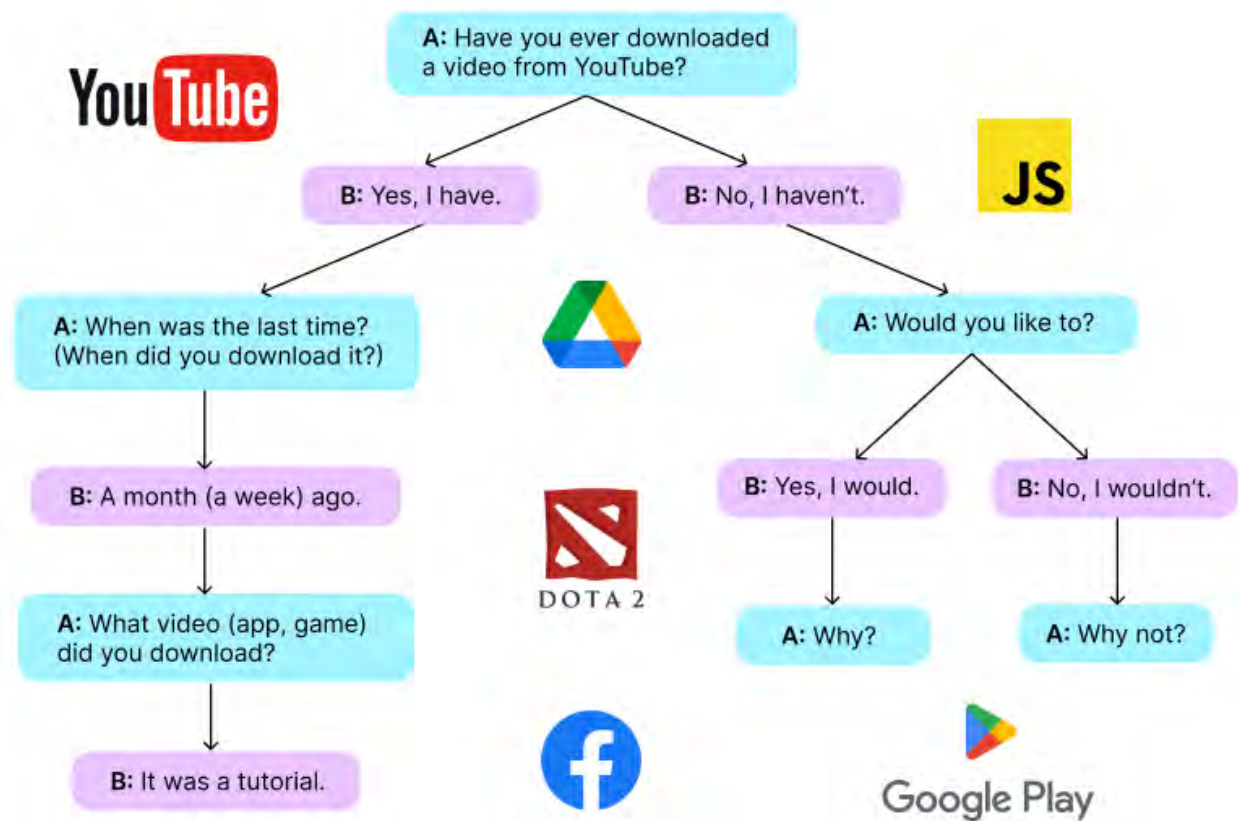
**5. Fill in the gaps with a verb from the box in the correct Present Perfect form (Active or Passive).**

**be, develop, build, recommend, convert, introduce, use, share**

1. Being a Java developer, it \_\_\_\_\_ easy for me to get started with Kotlin.
2. I \_\_\_\_\_ to learn Python because it's a good language for beginners.
3. – \_\_\_\_\_ you ever \_\_\_\_\_ Android Studio? – Sure, I \_\_\_\_\_ already \_\_\_\_\_ my first app using Android Studio tools.

4. Kotlin is a cross-platform programming language, so we \_\_\_\_ Kotlin code with all of the target platforms.
5. Pinterest \_\_\_\_ successfully \_\_\_\_ Kotlin in their application, used by 150M people every month.
6. KeepSafe App Lock \_\_\_\_ to 100% Kotlin leading to 30% decrease in source line count.
7. JavaScript is a popular language for web development. Popular sites like eBay, PayPal and Uber \_\_\_\_ using JavaScript.

**6. In pairs, look at the conversation below. Now take it in turns to be A and B, and ask and answer questions with Present Perfect and Past Simple tenses using the prompts.**



**Prompts:**

1. Ever / write / code in JavaScript?
2. Already / set up / an account in Facebook?
3. Buy / any Android device over the last few years?
4. Play / any online games recently?
5. Already / use / Google Drive to store files?
6. Buy / anything online lately?
7. Install / any app from Google Play Store over the last few months?
8. Ever / develop / a website?
9. Ever / use / any game engine?

**7. Change the verb into the correct form of Past Perfect or Past Simple (Active or Passive):**

1. I \_\_\_\_ (look) through a lot of guides before I \_\_\_\_ (find) the most useful one.
2. Ann \_\_\_\_ (apply) to many companies before she \_\_\_\_ (invite) for an interview.
3. When Ivan \_\_\_\_ (decide) to sell his laptop he \_\_\_\_ already (have) it for 5 years.
4. By 2012 Google \_\_\_\_ (scan) more than 15M books.
5. Before Victor \_\_\_\_ (learn) to program in Java he \_\_\_\_ (learn) Python.
6. After I \_\_\_\_ (complete) a tutorial I \_\_\_\_ (write) simple code in C#.
7. Julia \_\_\_\_ (try) a free trial with Unity Learn before she \_\_\_\_ (buy) a full version.
8. The game \_\_\_\_ (adjust) before we \_\_\_\_ (release) it.

**8. Choose the correct form of the verb using Perfect Tenses.**

1. After the lecturer *has explained / had explained / will have explained* the basics of relational databases, he gave the task to the students.
2. Misha *has been prepared / will have prepared / had prepared* the report by next week.
3. C++ programming language *had been learnt / will have learnt / has been learnt* by the students since the beginning of the term.
4. Before the app was released, its functionality *had enhanced / will have been enhanced / had been enhanced*.
5. Andrew *had completed / has been completed / will have completed* testing the app by deadline last week.
6. All technical documentation *had been analyzed / will have been analyzed / have been analyzed* by next Tuesday.
7. After the developers *have been used / will have used / had used* ReactJS library the website development process was accelerated.

**9. Choose the best option.**

1. Valve \_\_\_\_ many classic games like Counter-Strike, Dota 2 that will be played for years to come.
  - a) have been created
  - b) has created
  - c) had created
2. Java Script \_\_\_\_ one of the most dominant languages over the last few years for front-end work.
  - a) had become
  - b) have become
  - c) has become
3. New content \_\_\_\_ on the website by this time tomorrow.
  - a) has been uploaded
  - b) will have been uploaded
  - c) have uploaded

4. They \_\_\_\_ a lot of research before they finally solved the problem.
  - a) had conducted
  - b) has been conducted
  - c) will have conducted
5. I \_\_\_\_ in Czech Republic for a year before I moved to Greece.
  - a) has been
  - b) had been
  - c) have been
6. Our developers \_\_\_\_ new features to the game mechanics by next month.
  - a) had been brought
  - b) will have brought
  - c) have brought
7. Recently, I \_\_\_\_ on a variety of developer tools at Facebook.
  - a) has been worked
  - b) will have worked
  - c) have worked
8. The project \_\_\_\_ by the deadline last week.
  - a) have been completed
  - b) had completed
  - c) had been completed
9. Next year I \_\_\_\_ for the company for three years.
  - a) have been worked
  - b) will have worked
  - c) will have been worked
10. Android \_\_\_\_ the choice of phones available around the world.
  - a) will have expanded
  - b) had been expanded
  - c) has expanded
11. By next September Mark \_\_\_\_ C++ for a year.
  - a) will have been studied
  - b) will have studied
  - c) have been studied
12. Kotlin \_\_\_\_ successfully by major companies.
  - a) has been adopted
  - b) had adopted
  - c) will have adopted

## 10. Correct the mistakes.

1. Some of the popular games like Counter-Strike, World of Warcraft will have made with C++.
2. Recently, big tech companies has been chosen Python as their primary back-end programming language.
3. Last week I downloaded a Java Tutorial for Complete Beginners. I has never used Java before.

4. By next October, Pavel has learnt Python for a year.
5. Alexander have applied to many companies before he got the job.
6. For a student who have never been programmed before, using a statically typed language seems unnatural.
7. After Julia has been followed a style guide for Python code she started to program in Python more productively.
8. By this time tomorrow we have wrote a simple program to control a simulated robot.

## SPEAKING 1

---

### *Programming languages discussion*

**1. Study this information about some programming languages. Be ready to use this information in the discussion with other students.**

<b>Java</b>	Developed by Sun Microsystems in the mid-1990s, Java is widely used for developing interactive applications for the Internet.
<b>Ada</b>	Named after Countess Ada Lovelace (one of the first programmers); it is a superset of Pascal. Ada is a structured language developed and used by the US Department of Defense. It is now used not only for military applications, but also in air traffic systems (UK), on high-speed rail system (TGV, France), the metro suburban trains in Paris and London.
<b>Logo</b>	Logo is an easy-to-use language that is primarily used to teach children how to program.
<b>LISP</b>	Stands for LIST Processor; LISP is designed to process nonnumeric data - that is, symbols such as characters or words. It is used to develop applications in the field of artificial intelligence.

<b>Prolog</b>	Stands for PROgramming LOGic; Prolog is used to develop applications in the field of artificial intelligence. It is a popular tool for natural-language programming.
<b>Perl</b>	Its name comes from Practical Report and Extraction Language. It first appeared in 1987 as a Unix-based tool for producing reports but is now widely used for creating interactive webpages.
<b>HTML</b>	Stands for HyperText Markup Language; HTML is a page description language used to prepare a text for display in a browser program.

<b>XML</b>	Stands for extensible Markup Language; XML is a metalanguage for creating webpages with meaningful data that can be used by a variety of programs.
------------	--

<b>C++</b>	C++ is an object-oriented superset of C which combines the best features of a structured high-level language and an assembly language - that is, it's relatively easy to code and uses computer resources efficiently. C was originally designed to write systems software but is now considered a general purpose language.
<b>Visual Basic</b>	BASIC stands for Beginners' All-purpose Symbolic Instruction Code; Visual Basic is a simple-to-use language that has a graphical interface. It makes it particularly easy for an inexperienced programmer to create database programs.

<b>Pascal</b>	Pascal, named after the mathematician Blaise Pascal, was created primarily to fill the need for a teaching vehicle that would encourage structured programming. It is often used in college computing courses.
<b>COBOL</b>	Stands for COmmon Business-Oriented Language; it has been around for a long number of years but is still an important transaction-processing language used to process the records of large organizations on mainframe computers.
<b>FORTRAN</b>	Stands for FORmula TRANslator; FORTRAN was designed by scientists in 1954 and is oriented toward manipulating formulas for scientific, mathematical, and engineering problem-solving applications.

**2. Together decide what the most appropriate language would be to use for each of these situations and explain why you think so.**

- a. A schoolteacher wants his young pupils to learn some basic mathematics by controlling a simple robot.
- b. The owner of a small business wants to create a simple database program to keep track of his stock.
- c. An engineer wants to develop a program for calculating the stresses in a mechanical device.
- d. A student wants to create webpages for a personal website.
- e. A systems programmer wants to add some new modules to an operating system.
- f. A programmer working for the US army wants to create a program for controlling a new type of weapon.
- g. A finance company needs to process data from its branch offices on its mainframe computer.
- h. A website designer wants to enable the data on his website to be easily processed by a number of different programs.
- i. A student studying artificial intelligence wants to write some programs for a course project.
- j. A college lecturer wants his students to learn the principles of programming.
- k. A website designer wants to password-protect a section of a website.

**Make use of the below mentioned phrases of certainty and uncertainty to help you express your point of view.**

Certainty	Uncertainty
I'm absolutely convinced that...	I'm not sure about it...
I'm sure that...	I doubt it...
There's no doubt that...	I'm not really sure about...
I think...	I don't know for sure...
I feel that...	It's very unlikely...
In my opinion...	I don't think so...
I suppose that...	I don't believe this is true...
It seems to me that...	There's some doubt in my mind that ...
As far as I know...	I'm not a hundred percent sure...
As far as I understand...	I am not sure / certain, but...

## SPEAKING 2

### Changing a Meeting Time

#### *Start-up*

1. Do you have any idea what kind of meetings are held in companies?
2. How often are the meetings arranged? What is your opinion?
3. What do you think the agenda includes?



**1. Before listening to the conversation between Lucy and Anna, match the phrases (1–6) with the definitions (a–f).**

1. to cancel a meeting	a. to change the time or date of a meeting
2. to confirm a meeting	b. to have a meeting at a later time or date
3. to bring a meeting forward	c. to say that a meeting will happen
4. to postpone a meeting	d. to have a meeting at an earlier time or date
5. to move a meeting	e. to say that you will go to a meeting
6. to accept an invitation to a meeting	f. to decide that a meeting will not take place

**2. Listen to the recording and do the exercises.**

**3. Choose the correct option.**

1. The meeting time was first planned for \_\_\_\_\_.
  - a. 9 a.m.



- b. 11 a.m.
- c. 1 p.m.
- 2. Moving the meeting
  - a. Lucy wants to cancel the meeting.
  - b. Lucy wants to bring the meeting forward.
  - c. Lucy wants to postpone the meeting.
- 3. The new meeting time is \_\_\_\_\_.
  - a. 9 a.m.
  - b. 11 a.m.
  - c. 1 p.m.
- 4. The agenda
  - a. Anna has already sent the agenda.
  - b. Anna is sending the agenda now.
  - c. Anna will send the agenda later.
- 5. Lucy's presentation
  - a. Lucy is nervous about her presentation.
  - b. Lucy is looking forward to her presentation.
  - c. Lucy isn't ready to give her presentation.
- 6. Telling the other people
  - a. Lucy will tell the others about the time change.
  - b. Sven will tell the others about the time change.
  - c. Anna will tell the others about the time change.

**4. Complete the sentences with the words from the box.**

**accept, bring, agenda, forward, postpone, invitation, cancel, change**

- 1. I sent an \_\_\_\_\_ with the topics for the meeting.
- 2. Could we \_\_\_\_\_ the meeting to a later date?
- 3. Could we \_\_\_\_\_ the meeting \_\_\_\_\_ to a nearer time?
- 4. The project has been stopped. So, we need to \_\_\_\_\_ the meeting.
- 5. I'll tell everyone about the time \_\_\_\_\_.
- 6. I'll send a meeting \_\_\_\_\_ with the time and place.
- 7. I'll \_\_\_\_\_ the invitation when I get it.

**5. Work with your partner. Discuss the meeting time. Useful language box might help you.**

**Useful language**

*Do you have a minute to talk about the meeting ...?*

*I have a bit of a problem with the time.*

*Would it be possible to move it?*

*What would suit you?*

*Could we make it 10 o'clock?*

**Student A:** You're a client of SoftSolutions Company. You arranged a meeting on Wednesday at 11 a.m. with a product development team. Unfortunately, you are not available to meet at this time and would like to bring the meeting forward on Tuesday at 10 a.m. Call a Project Manager and discuss this time.

**Student B:** You're a Project Manager of SoftSolutions Company. You arranged a meeting on Wednesday at 11 a.m. with a client of the company and a product development team. The client is calling to inform you that he is not available to meet at this time and would like to bring the meeting forward on Tuesday at 10 a.m. Tuesday at 2 p.m. suits you more.

## WRITING

---

### *Letter of Invitation*

#### *Start-up*

A letter of invitation basically contains the following information:

1. **the event** you are inviting to;
2. **the reason** of invitation (why you are inviting them) (although this is not always necessary)
3. **the place and the time** of the event (when and where it is)
4. **asking for confirmation** if they can attend.

**1. Read the two examples of business emails (letters) of invitation. Decide which one is formal and which one is less formal.**



#### **Email 1**

Hi Ian,

**We're holding** a meeting on the current problems with the computer systems and **I'd appreciate it if you could come**. Having somebody like yourself there from the legal department is important because of the problems we've had with the loss of customer data. The meeting **will take place** next Thursday at 2 p.m. in meeting room 3 in the Corley Building in Leeds.

If there's anything you would like to discuss in the meeting, send it to me by email and I'll include it in the meeting's agenda.

**Let me know as soon as possible** if you can attend.

Regards,

David Mitchell

IT Project Manager



## Email 2

Dear Mr. Smith,

My name is Sue Jenkins and **I am writing on behalf of** Reef Technologies PLC.

**We are pleased to announce** that we are sponsoring a series of presentations on the future of renewable energy. The presentations are going to be performed by world-renowned experts in the field and will consider future advances in the technology of renewable energy.

Due to your company having worked with Reef Technologies PLC in the past, **we would like to invite you to** the event. **The event will be held** at the Randalls Conference Centre in Leeds between 3 p.m. and 8 p.m. on the 12<sup>th</sup> of April. **If you require directions to the venue, please let me know.**

**If you would like to attend, please confirm your attendance** by replying to this email by the 18<sup>th</sup> of March.

If you have any questions about the event, please do not hesitate to contact me by email (on [sjenkins@reeftech.com](mailto:sjenkins@reeftech.com)) or by mobile/cell (on 07867 7433123).

**I look forward to receiving your reply.**

Yours faithfully,

Sue Jenkins

PR Manager

Reef Technologies PLC

### 2. Complete the sentences with one of the phrases in bold from the above emails.

1. A formal way of saying '*will take place*', is ...
2. A polite way of saying '*I want you to come*' or '*you should come*', is ...
3. A formal phrase which is used to say which company you work for / represent, is ...
4. An informal phrase used to ask somebody to confirm quickly if they can attend / go to the event / meeting, is ...
5. A less formal way of saying where the event '*will be held*', is ...
6. A formal phrase used to ask somebody to confirm if they can attend / go to the event / meeting, is ...
7. A formal phrase used to ask somebody to attend / go to an event, is...
8. A not very formal phrase used to introduce what type of event / meeting you are going to have, is ...
9. A phrase used to offer to send the person directions to get to the place / location, is...
10. A very formal phrase used to introduce what type of event you are inviting the person to, is ...

**3. Look at the phrases in italics in another email below. One phrase in each pair is more formal, the other phrase – more informal. Choose all the formal phrases.**

(1) *Dear Mary, / Hi Mary,*

(2) *I'm writing to invite you / We would be very pleased if you could come to a meeting here on the 14<sup>th</sup> of May.* (3) *It has been arranged / I've arranged it to bring together all our colleagues working in Central Europe* (4) *to / in order to share experience about working in this market.* (5) *Your attendance will be very welcome / It'd be great to see you.*

The meeting will last all day and will have an informal agenda – (6) *you won't need to / it will not be necessary to write a report for it or make a presentation.* (7) *Refreshments will be provided / There'll be plenty to eat and drink during the day.*

(8) *Hope to see you in May! / Your presence at the meeting will be very useful.* Please let me know if you (9) *will be able to attend / can make it,* (10) *asap / as soon as possible.*

Best regards,

(11) *John Saunders / Stephanie*

**4. Complete the phrases with one word in each gap. Use the emails above. Several answers may be possible.**

1. We \_\_\_\_\_ be very pleased if you \_\_\_\_\_ come to a meeting here on the 28 July.
2. Your \_\_\_\_\_ at the meeting will be very \_\_\_\_\_. I hope you can \_\_\_\_\_ it.
3. Please \_\_\_\_\_ me \_\_\_\_\_ if you can attend, \_\_\_\_\_ soon as possible.
4. It has been \_\_\_\_\_ to share experience.
5. \_\_\_\_\_ will be provided.
6. Your \_\_\_\_\_ will be very \_\_\_\_\_.

**5. Match the English and Russian equivalents:**

- |   |  |
|---|--|
| 1. We have the honour to invite you                       | a. С удовольствием сообщаем, что ...                             |
| ...   |  |
| 2. Allow us to invite you ...                             | b. Мы были бы признательны (Вам), если бы Вы смогли посетить ... |
| 3. It would give us great pleasure if you could visit ... | c. Нам было бы очень приятно, если бы Вы смогли посетить ...     |
| 4. We would like to invite you to ...                     | d. Мероприятие пройдет в ...                                     |
| 5. We would be grateful (to you) if you could visit ...   | e. Имеем честь пригласить Вас ...                                |
| 6. We are pleased to announce that                        | f. Приглашаем Вас ...  |
| ...   |  |
| 7. Please confirm your attendance                         | g. С нетерпением ожидаем ваш ответ                               |
| 8. The event will be held                                 | h. Разрешите пригласить Вас ...                                  |
| 9. I look forward to receiving your reply                 | i. Подтвердите, пожалуйста, ваше участие.                        |

**6. Read the following invitation from the German Chamber of Commerce and choose the best words from the options in brackets.**

Dear Mr. Bond,

We (wish / want / would like) to invite you to our annual dinner on the 15<sup>th</sup> of February and (wonder / ask / demanded) if you would consider being one of our guest (announcers / speakers / talkers). The theme we are promoting this year is the Single European Currency, and we would (admire / like / appreciate) a contribution from your field of manufacturing how this would (afflict / affect / alter) you and your colleagues' enterprises.

Please (leave / let / make) us know as soon as possible if you are able to (arrive / assist / attend). (Inside / Enclosed / Within) you will find a formal invitation (to / of / for) yourself and a guest.

All the best,

Mark Pitch Chairman

**7. Compose a letter of invitation to Mr. Robertson according to the guidelines. Follow the general structure, include the following information:**

- a) what you are inviting him to (Home Style and Decor Exhibition);
- b) when and where it is (the Expo House, on the 20<sup>th</sup> of September, timing for the exhibition - from 9 am till 8 pm);
- c) ask him to confirm if he can attend.

## LISTENING

---

### *Top 5 Programming Languages to Learn*

#### **SETTING THE CONTEXT**

1. What age did you start developing your coding skills at? Have you ever participated in any coding hackathons / projects?
2. Most programming languages are developed for specific reasons (e.g. C++ for writing system software, Cobol for business applications etc.), but there are also some bizarre (odd) languages (Whitespace, Cow etc.). What do you know about them?

#### **ACTIVATING VOCABULARY**

**Match the English words (phrases) with their Russian equivalents.**

1. downside	a. в сочетании с чем-либо
2. to care about	b. сбивающий с толку
3. honorable	c. согласовать с чем-либо
4. in conjunction with sth / sb	d. отрицательная сторона

5. confusing	e. иметь значение
6. to matter	f. уважаемый
7. to align with	g. заботиться о чём-либо

**Before proceeding to LISTENING COMPREHENSION section, please follow the [LINK](#) to watch the video.**

### ***LISTENING COMPREHENSION***

**1. Choose the best answer to these questions. Sometimes more than one correct option is possible.**

1. What is the biggest factor that is taken into consideration by IT companies when they're looking for a new employee?
  - a. Your education
  - b. Your personal projects
  - c. Your work experience
2. What kind of companies tend to care a lot about which specific language you know?
  - a. IT giants
  - b. Start-ups
  - c. Non-governmental organizations
3. The given list of top five programming languages to learn is based on \_\_\_\_\_.
  - a. the job market information
  - b. personal experience
  - c. the ease of learning
  - d. the job market information and ease of learning
4. Ruby is a programming language from \_\_\_\_\_.
  - a. the USA
  - b. Finland
  - c. Japan
  - d. Denmark
5. If you are interested in making an iPhone application you should learn \_\_\_\_\_.
  - a. JavaScript
  - b. Python
  - c. Swift
  - d. Ruby
6. It's not easy to create an iOS app with Swift if you \_\_\_\_\_.
  - a. have a Mac
  - b. have a PC
  - c. don't have a Mac
7. What is the main downside of Swift?
  - a. It isn't easy to get a job for those who know Swift.
  - b. It is not cross-platform.
  - c. It isn't an easy language to learn.

8. Python is a good choice for those who are interested in \_\_\_\_\_.
  - a. machine learning
  - b. mobile app development
  - c. data science
9. What is easier to learn?
  - a. JavaScript
  - b. C++
  - c. Not stated
10. JavaScript is used to create \_\_\_\_\_.
  - a. front-end code
  - b. back-end code
  - c. front-end and back-end code as well
11. Front-end code means the code that runs on \_\_\_\_\_.
  - a. your device
  - b. your server
  - c. your browser
12. Put the programming languages in the same order as they are listed in the video, starting with the first top language:
  - a. Java
  - b. JavaScript
  - c. Swift
  - d. Ruby
  - e. Python
13. Go programming language is known for its \_\_\_\_\_.
  - a. popular frameworks
  - b. efficiency and simple syntax
  - c. popularity in many companies
14. Kotlin is considered to become the primary language for developing \_\_\_\_\_.
  - a. Android apps
  - b. iOS apps
  - c. Linux apps
15. What is the correct way to pronounce the word “SQL”:
  - a. [ 'ɛs kjʊ: 'ɛl ]
  - b. [ 'si:kwəl ]
  - c. All above
16. SQL is \_\_\_\_\_.
  - a. easy to learn
  - b. similar to other programming languages
  - c. used in conjunction with other programming languages
  - d. used to build Android apps

**2. Match the words that go together in the video.**

1. to look for	a. used in conjunction with other languages
2. problem-solving	b. cross-platform
3. to apply	c. mentions
4. to align	d. choice
5. job	e. a job at Google
6. to be	f. ability
7. optimal	g. with smb's interests
8. to be	h. market
9. honorable	i. for a job
10. to get	j. coding skills

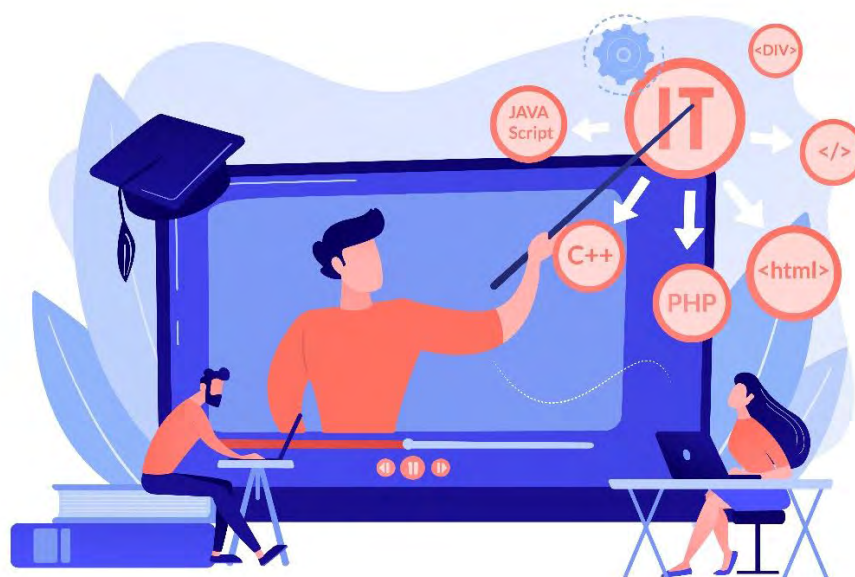
**3. Watch the video one more time and talk over the advantages and downsides of the programming languages being discussed.**

**4. Discuss the following questions.**

1. Does it matter for you which programming language to learn? Why?
2. Does the language you are learning align with your interests?
3. How do you find your problem-solving skills and algorithms knowledge? Are these skills important for getting a job?
4. Have you ever tried to apply for a job? If yes, did you get the job?
5. Have you got any idea what questions are asked at a job interview?
6. What kind of company are you planning to get work experience?

**5. Make a plan that outlines the main points of the video.**

**6. Summarize the main content of the video in 10-12 sentences using the plan.**





## UNIT 8

# ARTIFICIAL INTELLIGENCE AND NEURAL NETWORKS

### START-UP

---

#### 1. Answer the questions.

1. When someone mentions 'Artificial Intelligence' (AI), what is the first thing that comes to your mind?

2. Do you know what a neural network is? What industries are neural networks gaining popularity in at present?



### VOCABULARY

---

#### 1. Match the words with their definitions.

- |                            |  |
|----------------------------|--|
| 1) artificial intelligence | a) the main points of smth. that has been discussed earlier  |
| 2) to interact             | b) a belief or opinion that you develop from the information that you know   |
| 3) rational                | c) a computer system or a type of computer program that is designed to copy the way in which the human brain operates                  |
| 4) machine learning        | d) something that you accept as true without question or proof   |
| 5) buzz                    | e) to do or perform better than someone or something   |
| 6) neural network          | f) the ability of a machine or a computer to think, act and learn like humans  |
| 7) assumption              | g) to communicate with or react to smth.   |
| 8) to outperform           | h) the process of computers carrying out tasks by learning from new data, without a human giving instructions in the form of a program |
| 9) inference               | i) excited, usually positive, talk about something or someone  |
| 10) recap                  | j) reasonable or sensible  |

#### 2. Match the synonyms given below.

- |                |                |
|----------------|----------------|
| 1) application | a) present     |
| 2) to mimic    | b) help        |
| 3) current     | c) frightening |

- |                  |                 |
|------------------|-----------------|
| 4) intervention  | d) to predict   |
| 5) assistance    | e) to imitate   |
| 6) scary         | f) precisely    |
| 7) to anticipate | g) use          |
| 8) infancy       | h) to invent    |
| 9) capable       | i) interference |
| 10) accurately   | j) beginning    |
| 11) to coin      | k) able         |

**3. Use the words in the box to complete the sentences and make any necessary changes.**

assistance, coin, recap, anticipate, buzz, intervention, outperform, capable

- The business that will survive will be those that \_\_\_\_ changes in technology.
- There is so much \_\_\_\_ about this new game.
- Jaron Lanier \_\_\_\_ the term 'virtual reality' and pioneered its early development.
- He is still \_\_\_\_ of doing the job.
- The company provides advice and \_\_\_\_ in finding suitable accommodation.
- The system is automatic and requires no physical human \_\_\_\_.
- Could you give me a quick \_\_\_\_ on what happened in the meeting?
- What if there is almost no area in which humans \_\_\_\_ machines?

**4. Complete the table with the appropriate derivatives. Pay attention to the meaning of the words.**

Verb	Noun	Adjective / Participle
interact		
	breadth	
	anticipation	
interchange		
	association	
		recognizable
assist		
	action	
		inferable
automate		

**5. Complete the sentences with the appropriate derivative of the word given in capitals.**

- People \_\_\_\_ the company with televisions but it also makes computers.  
(ASSOCIATION)

2. This is an \_\_\_\_\_ museum where children can actively manipulate the exhibits. (INTERACT)
3. The cell phone has the capability of voice \_\_\_\_\_. (RECOGNIZABLE)
4. They don't \_\_\_\_\_ any major problems during construction. (ANTICIPATION)
5. The company hired a temporary office \_\_\_\_\_. (ASSIST)
6. The camera has two \_\_\_\_\_ lenses. (INTERCHANGE)
7. The football player didn't appreciate the media's \_\_\_\_\_ that he should retire because of his old age. (INFERRABLE)
8. Trying to \_\_\_\_\_ their base, the company has put new ads to attract new types of customers. (BREADTH)

## READING

---

### 1. Read the text and answer the questions.

1. When did the term 'Artificial Intelligence' appear? Who coined the term?
2. What is the concept of AI based on?
3. What things must a computer program be capable of to be considered AI?
4. What is the difference between Artificial Intelligence and Machine Learning?
5. What is Machine Learning focused on?
6. What technologies does AI include?
7. How do personal intelligent assistants work?
8. How is AI applied in such services as Spotify and Apple Music?
9. What other examples of AI in use today include?
10. What tasks will AI outperform humans within the next decade?
11. What tasks will be rather complicated for AI?

### Artificial Intelligence

The term 'artificial intelligence' dates back to 1956 and belongs to a Stanford researcher John McCarthy, who coined the term and defined the key mission of AI as a sub-field of computer science.

Basically, artificial intelligence (AI) is the ability of a machine or a computer program to think and learn. The concept of AI is based on the idea of building machines capable of thinking, acting, and learning like humans.

A more nuanced definition is that artificial intelligence is an interdisciplinary concept that studies the possibility of creating machines capable of interacting with their environment and acting upon the received data in the manner considered intelligent.

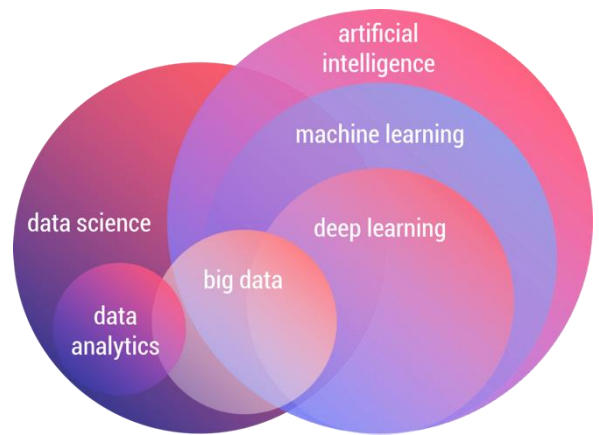
There are certain things a machine / computer program must be capable of to be considered AI. First, it should be able to mimic human thought process and behavior. Second, it should act in a human-like way – intelligent, rational, and ethical.

AI is not the same as machine learning. Although the two terms are often used interchangeably, they are different. Artificial intelligence is a broader concept, while machine learning is the most common application of AI. We should understand machine learning as a current application of AI that is focused on development of computer

programs that can access data and learn from it automatically, without human assistance or intervention.

Artificial intelligence, in its turn, is a bunch of technologies that include machine learning and some other technologies like natural language processing, inference algorithms, neural networks, etc.

Many people associate AI with the distant future. They incorrectly believe that despite all the buzz around artificial intelligence, the technology is not likely to become a part of their lives anytime soon. Little do they know how many aspects of their lives are already affected by AI.



There are intelligent personal assistants able to recognize our speech, analyze the information they have access to, and provide an answer or solution. What is remarkable (and a little scary) about such assistants is that they continuously learn about their users until the point at which they are able to accurately anticipate users' needs.

Spotify, Pandora, and Apple Music are some other touching points between AI and you. These services are capable of recommending music based on your interests. These apps monitor the choices you make, insert them into a learning algorithm, and suggest music you are most likely to enjoy. This particular use of AI is probably one of the simplest among all, but it does a good job helping us discover new songs and artists.

AI is making headway in areas you might least expect it. The current state of artificial intelligence already allows for some basic robot writing. It might be not yet ready to compose in-depth articles or creative stories, but does a pretty good job writing short and simple articles like sport recaps and financial summaries.

Other examples of artificial intelligence in use today include smart home devices like Google's NEST, self-driving cars like those produced by Tesla, and online games like Alien: Isolation.

Some people claim that AI is still in its infancy. Others assure us that we are only a few years away from AI gaining control over humanity. The truth, however, lies somewhere in between. According to the most trustworthy forecasts out there, AI will outsmart humans at virtually everything in the following 45 years. Experts predict that within the next decade AI will outperform humans in relatively simple tasks such as translating languages, writing school essays, and driving trucks. More complicated tasks like writing a bestselling book or working as a surgeon, however, will take machines much more time to learn. AI is expected to master these two skills by 2049 and 2053 accordingly [33].

## 2. Read the text again and say whether these statements are true or false.

1. Artificial intelligence is a relatively new field of cognitive science.
2. AI is identical to machine learning.
3. The entire machine learning concept is based on the assumption that we should give machines access to information and let them learn from it themselves.

4. AI is not likely to become a part of our lives soon.
5. Personal assistants continuously learn about their users until the point at which they are able to accurately anticipate users' thoughts.
6. Spotify, Pandora, and Apple Music are touching points between AI and you.
7. These days AI is gaining control over humanity.
8. AI will outperform humans in all spheres.

**3. Choose the correct word in bold.**

1. AI is an interdisciplinary *technology / concept* in which machines are able to deal with tasks in the manner considered intelligent.
2. AI based machine should be able to *mimic / recognize* human thought process.
3. Machine learning is a current *application / assumption* of AI.
4. Personal assistants are able accurately *associate / anticipate* user's needs.
5. There are intelligent gadgets capable of *recognizing / predicting* our speech.
6. Some services *recommend / monitor* the choices you make and *insert / compose* them into a learning algorithm.
7. One of the examples of AI usage is *intelligent / smart* home.
8. Some people are sure that AI will *gain / give* control over humanity in future.

**4. Complete the sentences with the prepositions from the box.**

on, of, over, with, on, to, by, of, back, of

1. The services like Spotify and Pandora are capable \_\_\_\_ recommending music based \_\_\_\_ your interests.
2. The more accurate approach to AI supports the idea \_\_\_\_ creating machines that are able to deal \_\_\_\_ tasks in a way we would call intelligent.
3. Many aspects of people's live are already affected \_\_\_\_ AI.
4. I've got a bunch \_\_\_\_ things to do.
5. We'll continue to focus our efforts \_\_\_\_ developing new learning algorithms.
6. The university dates \_\_\_\_ to medieval times.
7. Hackers had complete access \_\_\_\_ company files.
8. Do you expect AI to gain control \_\_\_\_ humanity?

**5. Match the words that go together in the text.**

- |                           |  |
|---------------------------|--|
| 1. to anticipate          | a. capable of interacting with the environment |
| 2. to gain control        | b. in-depth articles                           |
| 3. to mimic               | c. in a human-like way                         |
| 4. to insert your choices | d. over humanity                               |
| 5. to associate AI        | e. without human intervention                  |
| 6. to act                 | f. humans                                      |
| 7. to compose             | g. human thought process                       |
| 8. to create machines     | h. into learning algorithm                     |

- 9. to learn from data
- 10. to outsmart
- i. with the distant future
- j. user's needs

**6. Develop the ideas using active vocabulary.**

- a. I guess, computer programs will be able / won't be able to learn without human assistance because ...
- b. In my opinion, our lives are / are not affected by AI because ...
- c. I agree / disagree, if people give machines access to information they will outperform humans because ...

**7. Develop the ideas about Artificial Intelligence with the help of the Mind Map. Follow the [LINK](#).**

**8. Make a short summary of the text.**

**LANGUAGE FOCUS**

---

**PASSIVE VOICE REVIEW**

Consult grammar rule using the [LINK](#).

**1. Complete the sentences using one of the verbs from the box.**

**are used, was created, will be taken, are built, are coordinated, is composed, was proposed, can be embedded**

- 1. Artificial neural networks \_\_\_\_ like human brain, with neuron nodes interconnected like a web.
- 2. The Turing Test \_\_\_\_ in a paper published in 1950 by mathematician and computing pioneer Alan Turing.
- 3. A chatbot is an Artificial Intelligence feature that \_\_\_\_ and used through any major messaging applications.
- 4. Deep Learning algorithms \_\_\_\_ by PayPal company to predict fraudulent transactions.
- 5. For example, if the image \_\_\_\_ of 30 by 30 pixels, then the total number of pixels will be 900.
- 6. Some people fear that if Strong AI becomes a reality, many jobs \_\_\_\_ away from people.
- 7. All the programs on a computer \_\_\_\_ by the Operating System.
- 8. Linux \_\_\_\_ by Finish programmer Linus Torvalds in 1991.

**2. Read the text and define all the subject, verb and object structures. Then rewrite the text using Present Simple Passive verbs.**

Computer scientists create Artificial Neural Networks (ANN) for different purposes. ANN detect and delete spam from a user’s inbox. ANN personalize recommendations to the consumers at e-commerce platforms. Facebook develops machine learning chatbots to simulate human conversation with customers. Deep learning algorithms with ANN predict the likelihood of an event. AI platforms built on ANN simplify transactions in fintech sector.

**3. Complete the sentences using the correct form of the verbs in brackets (Simple Tenses).**

1. The concept behind Neural Networks \_\_\_\_ (base) on the functioning of the human brain.
2. Construct 3: game making software \_\_\_\_ (launch) in 2017. It \_\_\_\_ (write) to run entirely in the browser.
3. Last year, over 94 billion apps \_\_\_\_ (download) globally from Play App Store.
4. In the coming years, a virtual library of games with support from cloud servers \_\_\_\_ (access) by more consumers.
5. Indie games don’t usually have massive budgets and \_\_\_\_ (develop) by small teams.
6. The next International Dota Championship \_\_\_\_ (hold) in Stockholm, Sweden.
7. The automated Java to Kotlin converter \_\_\_\_ (include) in the Kotlin plugin.
8. When Microsoft first released Windows 3.0 in 1990, it \_\_\_\_ (consider) revolutionary.

**4. Match to make sentences.**

1. Artificial neural networks	a) is currently being used in healthcare industry for dosing drugs.
2. The digital payment norm	b) has been introduced by cloud storage.
3. Artificial intelligence	c) it had been adjusted.
4. In October 2019 it was announced that	d) has been changed by cryptocurrency.
5. Some popular and commercial games	e) have been applied by many companies.
6. Another level of data retention	f) ‘Quantum Supremacy’ had been achieved by Google.
7. Before we released the game	g) have been built using the Unity Game Engine.

## 5. Choose the best option.

1. Many companies only introduce innovations after the concepts *have been tried out / is tried out / has been tried out* by smaller studios and received positively.
2. During the training stage the Artificial Neural Network *is teach / are taught / is taught* what to look for and what its output should be.
3. Nowadays machine learning *was being used / is being used / were used* in data analytics to make sense of big data.
4. A new meaning of the word convenience *has created / have been created / has been created* by e-commerce.
5. In 2001, data science *was being introduced / was introduced / has been introduced* as an independent discipline.
6. After our company information *have verified / has been verified / had been verified* we could start to set up our first product.
7. Amazing progress *was being make / was made / was being made* when this team of developers got involved in the project.

## 6. Transform the sentences using the verbs either in the Active or Passive Voice.

1. Users are sharing vast amounts of data through apps, social networks, and websites.
2. Android has expanded the choice of phones available around the world.
3. Full flight information is identified from your face by face recognition system at Chinese airports.
4. Businesses integrate chatbots with websites and messaging apps to automate their regular tasks.
5. The large volume of digital data is being used by companies to deliver better and smarter services to the people.
6. Linux was created by the Finnish programmer Linus Torvalds in 1991.
7. Nowadays the airports across the globe are introducing facial recognition to improve security.
8. Chatbots have also been acknowledged by many companies as an excellent resource for collecting and sharing relevant information.
9. Usersnap is a collaboration space where bugs are reported and visual feedback is collected, shared and discussed by the users.
10. Quality assurance (QA) teams have applied AI in predicting test quality, classifying defects, interacting with apps under tests, and so on.
11. Numerous other technologies, including the Internet of Things, augmented reality, virtual reality, blockchain and 3D printing will influence AI's development, adoption and regulation.
12. Unlike most other programming languages, Python does not utilize curly brackets for delimiting code blocks.



## 7. Correct the mistakes.

1. Mac OS is only find on Apple's iMac and MacBook computers.
2. Complex financial algorithms was testing thoroughly to ensure the programs were without errors.
3. Have Artificial Intelligence technology adopted by financial sector already?
4. Soon the need for traditional trade advisors will reduce by robo advisors.
5. The whole last month the workloads for various machines are recorded and analyzed to optimize the performance.
6. Recently, the findings from data analytics was utilized by nearly every department in the company.
7. Big data also collects from sensors and other inputs in smart devices.
8. As the use of AI becomes increasingly widespread a large number of jobs will automate.
9. Today more than 50 programming languages is actively using.
10. Deep Learning and Machine Learning technology had used by PayPal company for around 10 years.

## SPEAKING 1

---



### Discussion

- 1) Get into groups of three or four (A, B, C, and / or D).
- 2) Act according to your role task and speak in favour of the AI technology from your task.

#### **Student A**

##### **Intelligent Personal Assistant**

You think an intelligent personal assistant is the best technology. Tell the others three reasons why. Study the **LINK** to help you with the reasons why an intelligent personal assistant is the best technology.

#### **Student B**

##### **AI-Powered Search Engine for scientists**

You think an AI-powered search engine for researchers and scientists is the best technology. Tell the others three reasons why. Study the **LINK** to help you with the reasons why an AI-powered search engine for researchers and scientists is the best technology.

#### **Student C**

##### **Facebook Anti-Terrorist System**

You think anti-terrorist systems on Facebook are the best technology. Tell the others three reasons why. Study the **LINK** to help you with the reasons why Facebook Anti-Terrorist System is the best technology.

## Student D

### Concealed Weapon Detection System

You think a concealed weapon detection system is the best technology. Tell the others three reasons why. Tell them things that are wrong with their things. Study the [LINK](#) to help you with the reasons why a concealed weapon detection system is the best technology.

## SPEAKING 2

### Offer of Help and Invitation to Do Something

#### Start-up

An offer of help is a suggestion that you do something.  
An invitation is a suggestion that the other person does something.



We use the following structures in English:

Offers of help	Invitations
- Shall I do smth. ...? (informal / neutral) - Do you want me to do smth.? (informal / formal) - Would you like me to do smth.? (polite)	- Do you want to do smth.? (informal / neutral) - Would you like to do smth.? (polite)

#### 1. Choose the correct sentences to express an offer and an invitation.

1. Shall I send you a copy of the report?
2. Would you like to join us for lunch?
3. Would you like that I send you a copy of the report?
4. Do you want to join us for lunch?
5. Would you like me to send you a copy of the report?
6. Do you want to leave a message?
7. Would you like me to take a message?
8. Would you like to leave a message?
9. Shall I take a message?

#### 2. Complete each sentence with one word.

1. \_\_\_\_\_ I take a message for her?
2. \_\_\_\_\_ you want me to take a message for her?
3. \_\_\_\_\_ you like me to take a message for her?
4. Do you \_\_\_\_\_ to leave a message for her?
5. Would you \_\_\_\_\_ to leave a message for her?

**3. Complete the questions (1 – 8) with suitable phrases and match with the answers (a – h).**

1. \_\_\_\_\_ call you back later?
2. \_\_\_\_\_ hold the line or leave a message?
3. \_\_\_\_\_ confirm that for you by email?
4. \_\_\_\_\_ email me your details?
5. \_\_\_\_\_ think about that before you  
decide?
6. \_\_\_\_\_ post it to you today?
7. \_\_\_\_\_ speak to me tomorrow about that?
8. \_\_\_\_\_ connect you to the sales manager?



- a) Good idea. I'll think about it and phone you back tomorrow.
- b) Please. My email address is p.peterson@lewis.com.
- c) I'm busy tomorrow. How about this afternoon?
- d) I'll hold, thanks.
- e) That's very kind of you. Could you call me on my mobile?
- f) Well, it isn't really a sales problem. Could you put me through to marketing?
- g) Yes, please. Can you send it first class?
- h) Yes, I'll email them right now.

**4. Put the lines in the conversation in the correct order.**

- a) Good idea. Thanks a lot.
- b) I'm having problems with my laptop. It's running really slowly.
- c) Oh, yes, please. Could you come over after work?
- d) Do you want me to have a look at it?
- e) OK. See you then. Thanks again.
- f) No problem. But can you bring the installation CDs, too?
- g) You're welcome.
- h) I'm sorry, but I'm working late today. Do you want to bring it to my place this weekend?

**5. Work with your partner. Make similar conversations about the problems below. Use the prompts.**

1. You can't start your car.
2. Your Internet connection isn't working.
3. You're moving to a new flat.
4. Your phone isn't working.
5. Your computer has Blue screen of death (BSOD).
6. Your VK account has been blocked.
7. Your own ideas ... .

### *A letter Accepting / Refusing an Invitation*

#### **Start-up**

1. Have you ever received a letter / message of invitation?
2. What event were you invited to?
3. Did you accept the invitation?

A letter of invitation should be responded with a letter accepting or refusing the invitation. It can be formal or informal.

#### **In letters accepting an invitation, we**

1. express thanks for the invitation;
2. make further comments such as asking the person whether there is anything we can do, or asking for more information concerning the invitation;
3. restate our thanks.

#### **In letters refusing an invitation, we**

1. express thanks for the invitation;
2. give reasons why we are unable to accept it;
3. apologize again.

**1. Read the two emails below. What type are they? One phrase in italics in each pair comes from a company with a formal culture, the other phrase - from a company with an informal culture.**

**a) Choose all the informal phrases and read the informal variant of the letters aloud.**

**b) Choose all the formal phrases and read the formal variant aloud.**



#### **Email 1**

(1) *Thanks a lot for the invite / Thank you for your kind invitation.* (2) *I would be delighted to attend / I'd love to come to the meeting.* (3) *It sounds like a great idea / I am sure it will be very useful.* Please let me know if there's anything I can do to help from this end.

(4) *Will it be okay / Would it be possible* to bring Martina Petrovich as well? She's a new member of our team and is very involved with the Central Europe market. (5)

*Thanks again / Thank you once more* for your invitation, and (6) *I look forward to seeing you / see you* on 14 May.



## Email 2

(1) *Thanks a lot for the invite / Thank you for your kind invitation.* Unfortunately, I have another appointment on that day. (2) *I'm very sorry that I will miss the meeting / Please accept my apologies.*

In any case, send my regards to everyone at the meeting, and please (3) *let me have a copy of any report arising from the discussion / email me and let me know how it went.*

I hope (4) *we can meet up soon / we will have the opportunity to meet on another occasion in the near future.* (5) *Good luck with the meeting! / I am sure that the meeting will be a great success.*

### 2. Complete the phrases by writing one word in each gap. Use the emails above. Several answers may be possible.

1. Thank you for your \_\_\_\_\_ invitation. I look forward to \_\_\_\_\_ you on the 28<sup>th</sup>.
2. \_\_\_\_\_, I will not be able to come. I have another \_\_\_\_\_ on that day. Please accept my \_\_\_\_\_.
3. I hope we will have the \_\_\_\_\_ to meet on another occasion in the \_\_\_\_\_ future. I am sure the meeting will be a great \_\_\_\_\_.
4. \_\_\_\_\_ it be \_\_\_\_\_ to bring Jane Davidson as well?
5. I would be \_\_\_\_\_ to attend the conference.
6. Please \_\_\_\_\_ me know if there's \_\_\_\_\_ I can do to help from \_\_\_\_\_.

### 3. Complete the sentences with one of the phrases from the above emails.

1. A formal way of expressing you wish to take part in the event is \_\_\_\_\_.
2. A polite way to thank someone is \_\_\_\_\_.
3. An informal way to express pleasure of being invited is \_\_\_\_\_.
4. An informal way used to wish good luck is \_\_\_\_\_.
5. A phrase at the very end of an email which tells the person that you want to see them very much is \_\_\_\_\_.
6. A formal phrase used to say 'sorry' is \_\_\_\_\_.

### 4. Match the English and Russian equivalents.

- |  |  |
|--|--|
| 1. I would be delighted to attend                      | a. Благодарю за любезное приглашение.            |
| 2. Please accept my apologies.                         | b. Имеется ли возможность...                     |
| 3. I look forward to seeing you.                       | c. К сожалению, у меня назначена другая встреча. |
| 4. Thank you for your kind invitation.                 | d. Я с удовольствием приму участие.              |
| 5. I am sure that the meeting will be a great success. | e. Примите мои извинения.                        |

6. Would it be possible ...  
 7. Unfortunately, I have another appointment.

- f. С нетерпением жду встречи.  
 g. Уверен, встреча пройдет на высшем уровне.

**Look through some more useful language:**

Letters Accepting an Invitation		Letters Refusing an Invitation	
Opening remarks			
Formal	Informal	Formal	Informal
- I am writing to thank you for the kind invitation. - Thank you for the kind invitation which I would be honored to accept.	- Thanks for the invitation to ...	- We thank you for your recent invitation to ... but ...	- Thanks for the invitation, but ... - Thanks for inviting me to ... but ... - I'm afraid I can't come.
Closing remarks			
- I look forward to seeing you. - We await the event with great anticipation.	- See you then. - We're really looking forward to it.	- I am sorry to miss the opportunity of ... - Thank you again for the invitation. - I hope we will have the opportunity to meet.	- I hope we can get together some other time. - I'm really sorry we'll have to miss it.

**5. Write a formal letter of refusal in reply to Mr. Davis's invitation below. Use the guidelines.**

Dear Mr. Pritchard,  
 I would like to invite you to our annual club meeting which will take place this year on the 21<sup>st</sup> of December. The meeting will be held in the clubs own banqueting suite at 8.00 pm.  
 This will be an occasion to express any new ideas about the club. It is a time to consider where improvements can be made in order to please our members. We will also discuss a change in the cost of yearly membership. As this affects you personally, your attendance at the meeting is highly appreciated.  
 After the meeting some light refreshments will be served.  
 Please inform us whether you will be able to attend.  
 Regards,  
 Ronald Davis

**Guidelines**

Your name is Jonathan Pritchard.

- express thanks for the invitation to the annual club meeting;

- explain that you won't be able to attend it on the date mentioned in the invitation;
- give reasons why you are unable to accept the invitation: you are in hospital recovering from an appendix operation;
- say that, nevertheless, you would like to make a request to reconsider any changes in cost of membership as prices are already quite high;
- apologize again and say you are sure you will be present at next year's meeting.

**6. This is an informal invitation to a Christmas party. Write an informal accepting of the invitation. Use the guidelines below.**

Dear Ann and John,

We're writing to invite you to our Christmas party on the 18<sup>th</sup> of December.

You shouldn't have too much trouble finding the house, but here are a few directions so you don't get lost. Take the A27 road for Lewes and turn right at the roundabout where there is a signpost for Hawkstead. Drive through the town until you get to the post office, then turn left into Potter's Lane. Our house is number 23, on the right-hand side.

We hope you'll be able to make it to our party. Looking forward to seeing you then.

Love,

Bill and Laura

**Guidelines**

- express thanks for the invitation and say you were really pleased to receive it;
- make further comments: it's been a long time since you've seen each other; ask if there's anything you can bring or do to help;
- express thanks again




## LISTENING

---

### Remodelling Machine Learning

#### SETTING THE CONTEXT

1. What challenges does modern AI face?
2. What types of Artificial Intelligence do you know? What is the difference between narrow AI and strong AI?
3. Comment on the following quote. Express your views on the future of AI.



“

*We're at the beginning of a golden age of AI. Recent advancements have already led to invention that previously lived in the realm of science fiction – and we've only scratched the surface of what's possible.*

”

Jeff Bezos, Amazon CEO

#### ACTIVATING VOCABULARY

Match the English words (phrases) with their Russian equivalents.

1. commonplace	a) причина и следствие
2. to recognize	b) найти решение
3. inference	c) причинная связь, причинно-следственные отношения
4. to tackle	d) пытаться
5. cause and effect	e) обычное явление, привычное дело, типичный случай
6. to unravel	f) соотношение, взаимосвязь
7. causation	g) лежащий в основе
8. to become reliant on	h) выявлять, обнаруживать, разгадывать
9. to attempt	i) узнавать, распознавать
10. correlation	j) стать зависящим от
11. underlying	k) вывод, заключение, умозаключение

Before proceeding to LISTENING COMPREHENSION section, please follow the [LINK](#) to watch the video.



## ***LISTENING COMPREHENSION***

**1. Choose the best answer to these questions. Sometimes more than one correct option is possible.**

1. Machine learning is \_\_\_\_\_ today.
  - a. a revolutionary approach
  - b. a type of Artificial Intelligence
  - c. a natural phenomenon
  - d. a commonplace
2. Machine learning is used in applications like Spotify and Netflix to \_\_\_\_\_.
  - a. bring down the latency and assure smooth play of videos
  - b. help predict your media preferences
  - c. give you access to millions of songs and films
3. Deep learning is mainly focused on \_\_\_\_\_.
  - a. causal deconvolution
  - b. classification and statistical correlation
  - c. selection, recombination, and mutation to evolve a solution to a problem
4. What may be called a fundamental challenge across all scientific fields nowadays?
  - a. Recognizing and comparing patterns.
  - b. Implementing probabilistic search methods.
  - c. Understanding the dynamics of cause and effect.
5. Causal deconvolution by algorithmic generative models means
  - a. breaking down complicated and interconnected datasets to look at the underlying mechanisms or code that generate them.
  - b. perceiving the environment and taking actions that maximize the chances of success.
  - c. a supervised and parameter-based model-oriented approach.
6. Modern machine learning can \_\_\_\_\_.
  - a. tell us much about how natural phenomena are formed
  - b. identify objects by comparing their features to previous examples it's been shown.
  - c. discover what might have generated the objects
7. A revolutionary new form of machine learning can help \_\_\_\_\_.
  - a. in fields such as genetics and cell biology
  - b. understand how a thunderstorm forms
  - c. choose videos to be streamed on Netflix
8. A new methodology \_\_\_\_\_.
  - a. moves away from the questions of causation and towards classification
  - b. moves towards statistical correlation and away from generating mechanisms
  - c. moves away from classification and towards the questions of causation

**2. Match the words that go together in the video.**

1. to rely on	a. cause and effect
2. to crunch	b. interconnected datasets
3. recognizing and	c. statistical correlation
4. fundamental	d. the underlying mechanisms
5. to become reliant	e. computational methods
6. traditional	f. challenge
7. to break down	g. on AIs
8. to focus on	h. comparing patterns
9. to look at	i. approaches
10. to unravel the dynamics of	j. big data

**3. Discuss the following questions based on the information from the video.**

1. Why do scientists rely on computational methods?
2. What are traditional approaches to machine learning useful for?
3. What is traditional ML not very good at?
4. What ability do most AIs lack?
5. What are the team of scientists developing to tackle the generating mechanisms?
6. What does a new approach attempt to do unlike traditional ML?
7. What can this new methodology help scientists unravel?
8. What might happen to scientists if machine intelligence continues to develop?

Why?

**4. Make a plan that outlines the main points of the video.**

**5. Summarize the main content of the video in 10-12 sentences using the plan.**



## UNIT 9

# IMAGE RECOGNITION

### START-UP

---

#### 1. Answer the questions.



1. Do you think a computer can detect images as well as a person can?
2. Do you have any idea what areas image detection and recognition are useful?

Why?

### VOCABULARY

---

#### 1. Match the words with their definitions.

- |                    |   |
|--------------------|---|
| 1) to capture      | a) return on investment, financial metric for measuring the probability of gaining return from an investment  |
| 2) machine vision  | b) an environment which is produced by a computer and seems very like reality to the person experiencing it   |
| 3) salient         | c) a sign on the front and back of a vehicle that shows its license number                                    |
| 4) e-commerce      | d) a type of machine learning concerned with artificial neural networks allowing advanced pattern recognition |
| 5) surveillance    | e) a word, idea, or activity which has recently become extremely popular                                      |
| 6) buzz            | f) continuous observation of a place, person, group, or ongoing activity in order to gather information       |
| 7) deep learning   | g) buying and selling goods or services over the Internet   |
| 8) license plate   | h) especially noticeable or relevant  |
| 9) virtual reality | i) the ability of a computer to see   |
| 10) ROI            | j) to catch, to grab  |

**2. Match the synonyms given below.**

- |                |                          |
|----------------|--------------------------|
| 1) to identify | a) to input              |
| 2) man-made    | b) sight                 |
| 3) insight     | c) to trace              |
| 4) assistance  | d) artificial            |
| 5) replacement | e) to teach              |
| 6) to detect   | f) benefits              |
| 7) advancement | g) change                |
| 8) to track    | h) to discover, find out |
| 9) perks       | i) understanding         |
| 10) to feed    | j) to recognize          |
| 11) vision     | k) help                  |
| 12) to train   | l) progress              |

**3. Use the words in the box to complete the sentences and make any necessary changes.**

**insight, detect, perks, identify, vision, train, power**

- The sensor \_\_\_\_ changes in light level and temperature.
- I can read without glasses, but my distance \_\_\_\_ is poor.
- One of the \_\_\_\_ of my last job was the use of a company car.
- He is well \_\_\_\_ to complete any mission that he is given.
- The document must \_\_\_\_ you by name and bear your signature or a recognizable photograph of you.
- My calculator doesn't need batteries because it's solar-\_\_\_\_\_.
- The research provides a new \_\_\_\_ into the origins of the universe.

**4. Complete the table with the appropriate derivatives. Pay attention to the meaning of the words.**

Verb	Noun	Adjective / Participle
	advancement	
apply		trained
localize		
	replacement	
detect		visual
	adoption	
	search	
identify		

**5. Complete the sentences with the appropriate derivative of the word given in capitals.**

1. Do you really think this is a good \_\_\_\_\_ for a store? (LOCALIZE)
2. The idea was so \_\_\_\_\_ that I couldn't understand it. (ADVANCEMENT)
3. Machines can not \_\_\_\_\_ people in this work. (REPLACEMENT)
4. We should have \_\_\_\_\_ card on the person when we go out. (IDENTIFY)
5. Somehow, I can't \_\_\_\_\_ myself staying with this company for much longer.  
(VISUAL)
6. The company has \_\_\_\_\_ a strict no-smoking policy. (ADOPTION)
7. One of the great strengths of the web is its function as a \_\_\_\_\_, retrievable archive. (SEARCH)
8. The US has special airplanes that are capable of avoiding \_\_\_\_\_ by radar.  
(DETECT)

**READING**

---

**1. Read the text and answer the questions.**

1. What is image recognition?
2. What technology do computers use to detect and identify objects?
3. How does image recognition technology work?
4. How does an image recognition algorithm deal with an image?
5. How can researchers make image recognition algorithm more efficient?
6. What are the major applications of image recognition?
7. How is image recognition applied in e-commerce?
8. How can image recognition technology assist in business process management?
9. What advancements have been made in automotive industry thanks to image recognition?
10. What is the difference between virtual reality and image recognition?
11. How can image recognition software help organize your visual memory?

**Image Recognition**

Image recognition is the ability of a computer powered camera to detect and identify objects or features in a digital image or video. It is a method for capturing, processing, and examining images. To detect and identify images, computers use machine vision technology that is powered by an artificial intelligence system.

Image recognition technology works by detecting salient regions, which are portions that contain the most information about the image or the object. It does this by isolating the most informative portions or features in a selected image and localizes them, while ignoring the rest of the features that may not be of much interest. The process uses an image recognition algorithm, also known as an image classifier, that takes an image as input and outputs what the image contains. For an algorithm to know what an image contains, it has to be trained to learn the differences between classes. For instance, if the

goal of an image recognition system is to detect and identify dogs, the image recognition algorithm needs to be trained with thousands of images of dogs and thousands of images of backgrounds that do not contain any dogs.

In the commercial world, the major applications of image recognition are face recognition, security and surveillance, visual geolocation, object recognition, gesture recognition, code recognition, industrial automation, image analysis in medical and driver assistance. These applications are revolutionizing the business world, across many industries, and here's how:

### **E-commerce**

Image recognition has been highly adopted in e-commerce, including search and advertising. Today, mobile applications use the technology to identify specific products, providing potential customers with a more engaging experience of the world around them. It presents a more interactive view of the world by making everything searchable.

### **Business process management**

Image recognition technology can assist in the identification process during business operations. An example of this would be the replacement of traditional ID cards with Face ID. In the workplace, this can be used to determine if a person is granted access to official work documents or simply to check in. Another example where image recognition is applicable for efficient business operations is in the manufacturing process. Machines equipped with image recognition can automatically detect defective products in the manufacturing pipeline.

### **Automotive industry**

Self-driving cars are the buzz in the automotive industry and are already being tested in the U.S. and other parts of the world. These advancements in the automobile world are made possible by computer vision technology which uses AI image recognition. Computer vision systems powered by deep learning are trained using thousands of images such as road signs, pathways, moving objects, vehicles, and people and are fed into the systems neural networks. The systems get intelligent as more training data is fed into the system and this is how autonomous driving is enabled.

Image recognition can really help you with digital marketing. It can help you monitor ROI and protect your brand. You will be able to track how a sponsorship is doing with image and logo detection and this will help you determine how much revenue you will get in return.

When using image recognition, you can easily transpose digital information. As opposed to virtual reality, image recognition doesn't replace your environment with a digital one, instead, it adds more perks to it. In addition, you can easily organize your visual memory. Image recognition software can help you make mental notes through visual. If you take an image, computer vision will match it up with the visual background information, meaning that you can get information about wine bottles, books, and many more by simply taking a photo of their covers or labels. When you have these images in your computer, you can then search for the information they contain, counting on keywords, location etc. [21].

**2. Read the text again and say whether these statements are true or false.**

1. To detect and identify images computers use machine tool technology.
2. A typical image recognition algorithm can only identify faces.
3. Image recognition technology works by detecting minor regions of the object.
4. An image recognition algorithm has to be trained with thousands of images to learn the differences between classes.
5. The major applications of image recognition are revolutionizing the business world across many industries.
6. In the workplace, the replacement of Face ID with traditional ID cards can assist in identification process.
7. Machines equipped with image recognition still need an operator to detect defective products in manufacturing.
8. Computer vision system gets intelligent as more training data is fed into the system.
9. Image recognition can help you monitor your profit from investments.

**3. Match the two halves of the sentences.**

- |  |   |
|--|---|
| 1. Machine vision technology                                 | a. and outputs what the image contains.   |
| 2. Image recognition technology works                        | b. in e-commerce, including search and advertising.   |
| 3. An image recognition algorithm takes an image as an input | c. image recognition doesn't replace your environment with a digital one.                               |
| 4. An image recognition algorithm has to be trained          | d. to replace traditional ID cards with Face ID in business process management.                         |
| 5. Image recognition has been adopted                        | e. make self-driving cars possible.   |
| 6. Image recognition technology can assist                   | f. is used to detect and identify images.   |
| 7. Machines equipped with image recognition can              | g. can help you organize your visual memory by matching a photo with the visual background information. |
| 8. Computer vision systems powered by deep learning          | h. by detecting the most informative features in a selected image and localizes them.                   |
| 9. Compared to virtual reality                               | i. automatically detect defective products in the manufacturing.  |
| 10. Image recognition software                               | j. to learn the differences between classes.  |

#### 4. Fill in the gaps with the correct preposition.

1. In the future, cars equipped \_\_\_\_\_ on-board computers will be able to detect and avoid traffic jams automatically.
2. Employees expect flexibility \_\_\_\_\_ the workplace.
3. We replaced the old desktop \_\_\_\_\_ a newer one.
4. The data is fed \_\_\_\_\_ a computer and analyzed.
5. Most trucks and buses are powered \_\_\_\_\_ diesel fuel.
6. They are still searching \_\_\_\_\_ a new full-stack developer.

5. Develop the ideas about Image Recognition with the help of the Mind Map. Follow the [LINK](#).

#### 6. Make a short summary of the text.

### LANGUAGE FOCUS

---

#### MODAL VERBS

Consult grammar rule using the [LINK](#).

#### 1. Match the speech situations with the proper sentences.

1. Ability in the present	a. Could I use your charger?
2. Ability in the past	b. This car can drive in an autopilot mode.
3. Asking permission	c. Could you debug the program?
4. Asking permission politely	d. She could still be at work.
5. Polite request	e. Can I download this app?
6. Possibility	f. At school Bill Gates became entranced with what a computer could do.

2. Fill in: *can, can't, could, couldn't, will be able to* (for expressing general or specific ability).

1. Some people are afraid of AI technology, others \_\_\_\_\_ wait to see AI-powered machines.
2. Bill Gates quickly impressed IBM convincing them that he and his company \_\_\_\_\_ meet their needs.
3. Steam users \_\_\_\_\_ see what their friends are doing in the game.
4. Developers hope that in the near future an AI system \_\_\_\_\_ work with visual content more properly.
5. Google Cloud Vision API \_\_\_\_\_ detect and extract information about entities in an image, across a broad group of categories.
6. Unfortunately, last time the system \_\_\_\_\_ identify different objects in the image with high accuracy.



7. Soon you \_\_\_\_ build your own object detection system using Image AI.
8. If the system \_\_\_\_ classify image items, it should be further trained.

**3. To talk about past abilities we usually use *could*, *was able to*, *managed to*.**

**Complete the sentences using could / couldn't (for expressing general ability in the past), was / were able to (for expressing a successful ability on a specific occasion), managed to (= succeeded in doing smth. difficult), wasn't / weren't able to, couldn't, didn't manage to (for expressing an unsuccessful ability on a specific occasion).**

1. Denis \_\_\_\_ buy this phone case because it had been sold out.
2. When Nick was 13, he loved programming. He \_\_\_\_ build his first programmable robot with LEGO MINDSTORMS.
3. The topic was rather difficult but I \_\_\_\_ understand the idea.
4. I \_\_\_\_ cook until I went to university.
5. Yesterday an AI powered drone inspected the wind turbine and \_\_\_\_ detect some defective components.
6. Last year we \_\_\_\_ easily find a lot of fascinating places in Italy thanks to GPS navigator.
7. Luckily, I \_\_\_\_ get to the airport on time, despite the traffic.
8. The task was so monotonous that the workers \_\_\_\_ keep up with the rate of product output.
9. As there was nobody to disturb us in the lab, we \_\_\_\_ complete the measurements.
10. They worked on it for months but \_\_\_\_ find a solution.
11. He \_\_\_\_ attend the last meeting due to his illness.
12. The presentation wasn't working at first but we \_\_\_\_ fix it.

**4. Practice making requests. Match the questions with the answers to make short conversations.**

1. Could I speak to Martin Brown, please?	a. Yes, of course. I'm calling from Keytech Dynamics.
2. Would you like to leave a message?	b. No problem. What is it?
3. Could you spell your last name for me, please?	c. I'm afraid, he's out at the moment.
4. May I have the name of your company?	d. Yes, could you ask him to phone Justin Mortensen.
5. Will you be quiet, please?	e. I'm sorry, but I can't.
6. Could you lend me 50 pounds till Friday, please?	f. Certainly. It's M-O-R-T-E-N-S-E-N.
7. Can you shut that window?	g. Yes, of course. Sorry.
8. Would you help me with the report?	h. In a while. It's too hot in here.

**5. Work with your partner. Practice making polite requests with the help of modal verbs MAY, CAN, COULD, WILL, WOULD. Respond to a request positively or negatively. Requests are pronounced with rising intonation in the form of general questions. Use the prompts.**

1. to send an email to the customer;
2. to ask a customer when I can visit them;
3. to invite everyone to the next team meeting;
4. to write a short report about our new project;
5. to prepare a presentation about our new project;
6. to help somebody prepare some things for the next month;
7. to ask somebody to change the meeting time;
8. to use somebody's phone.

**6. Work with your partner. Put the words and expressions in the correct order to make requests for permission. Respond to a request positively or negatively.**

**Typical responses:**

**Positive:** *Yes, you can. / Yes, you may. / Yes, of course. / Certainly.*

**Negative:** *No, you can't. / No, you may not. / I'm afraid, it's not possible / Sorry, you can't.*

1. Can / in / come / I?
2. Could / tomorrow / a day / I / off work / take?
3. Your / email / may / we / answer / next week?
4. Use / dictionaries / we / can / the exam / in?
5. Of / could / a cup / I / coffee / make myself?
6. We / this / open / window / could?
7. May / ask / a / question / personal / I / you?

**7. Complete the sentences. Use *could* or *could have* and a suitable verb from the box to express possibility.**

**buy, download, be, integrate, go, take, meet**

1. – Where's Kate? – She \_\_\_\_\_ in a meeting.
2. – Are you still using Windows 7? You \_\_\_\_\_ the latest Windows 10 long ago.
3. – When shall we meet tomorrow? – Well, we \_\_\_\_\_ at 10 a.m.
4. – Did you go to the movies last night? – No, we \_\_\_\_\_ but we decided to stay at home.
5. – What challenges can manufacturers solve using AI tools? – For instance, manufacturers \_\_\_\_\_ neural networks to create automated visual inspections.
6. – Did you analyze every single image collected by the drone? – No, it \_\_\_\_\_ a lot of hours. An AI powered drone had filtered out 90% of data that was not of interest.
7. We \_\_\_\_\_ the necessary program, but we downloaded a free trial instead.

**8. Put in must (for something that is logically probable) or can't (for something that is logically improbable).**

1. There \_\_\_\_ be something wrong with the laptop! It's making a very unusual noise.
2. This \_\_\_\_ be Peter's smartphone. He's got a Samsung, but this one is a Huawei.
3. – Where's Pavel? – He \_\_\_\_ be in the office. His work starts at this time.
4. This technology is very smart. Its adoption \_\_\_\_ augment the quality of the product.
5. Ann \_\_\_\_ be at work because she never works on Sundays.
6. – You know, I boarded a flight without a boarding pass scan! – They obviously \_\_\_\_ have a facial recognition system at the airport.
7. These calculations \_\_\_\_ be correct! Twenty-seven plus eighteen doesn't equal forty-two.

**9. Put in mustn't or don't / doesn't have to (for expressing obligation).**

1. This online tutorial is free. You \_\_\_\_ pay to get it.
2. We \_\_\_\_ forget to switch off all the devices before we leave.
3. You \_\_\_\_ park the car here.
4. With the AI-powered drone you \_\_\_\_ do the initial review of the gathered images. The drone will filter out the data that is not of interest.
5. Alex \_\_\_\_ go to the university on Sundays.
6. We have a lot of work tomorrow. You \_\_\_\_ be late.
7. Nick \_\_\_\_ miss the classes. He'll leave behind his groupmates.
8. They \_\_\_\_ rush. They've got a lot of time.

**10. Choose the best option.**

1. You \_\_\_\_ design the algorithm. It has been done already.
  - a) can't
  - b) don't have to
  - c) must
2. At the end of the course you \_\_\_\_ build your own app.
  - a) must have
  - b) can't
  - c) will be able to
3. No matter how busy you are, you \_\_\_\_ schedule time to walk out.
  - a) must
  - b) couldn't
  - c) was able to
4. For every half-hour spent sitting in front of your computer you \_\_\_\_ take 2-3 minutes break.
  - a) don't have to
  - b) should

- c) were able to
5. Chatbots \_\_\_\_\_ be programmed for different platforms like Facebook, Twitter, WhatsApp.
- a) was able to  
b) can't  
c) can
6. The branches like Image Detection, Classification and Recognition \_\_\_\_\_ seem similar.
- a) might  
b) must  
c) should
7. To train AI tool to detect certain objects you \_\_\_\_\_ show these objects first.
- a) couldn't  
b) can  
c) have to
8. If you just need to find out the number of objects in the picture, you \_\_\_\_\_ use Image Detection.
- a) might have  
b) was able to  
c) should
9. We \_\_\_\_\_ modernize manual processes by automating them through the use of the biometric technology.
- a) is able to  
b) can  
c) must have
10. You \_\_\_\_\_ be late for the presentation.
- a) can't  
b) don't have to  
c) mustn't

## **SPEAKING 1**

---

### ***Biometrics for providing security***

Biometrics are a way to measure a person's physical characteristics to verify their identity. These can include physiological traits, such as fingerprints and eyes, or behavioral characteristics, such as the unique way you would complete a security-authentication puzzle. To be useful, biometric data must be unique, permanent and collectible. Once measured, the information is compared and matched in a database.

## Develop the ideas concerned the use of biometrics for providing security.

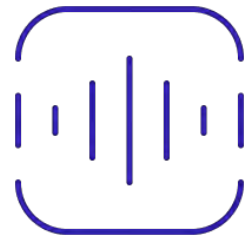
### 1. Face recognition

- a. You approach a high-security network.
- b. Key features of your face are scanned.
- c. The system matches your features to a database record of authorized staff.
- d. Your identity is verified.
- e. You can log on.
- f. Your identity is not verified.
- g. You cannot use the system.



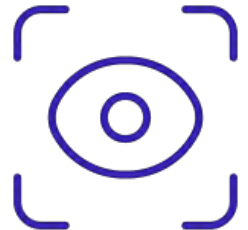
### 2. Voice recognition

- a. Computers without keyboards will become more common.
- b. These computers are voice-activated.
- c. The user wants to log on.
- d. He speaks to the computer.
- e. It matches his voice to a database of voice patterns.
- f. The user has a cold or sore throat.
- g. He can use the system.
- h. Stress and intonation patterns remain the same.



### 3. Eye scanning

- a. A person looks through eyepiece.
- b. The laser scans the eye.
- c. The computer records microscopic details of the eye.
- d. It translates data into a unique barcode.
- e. The system matches it to the one in the database recorded originally.



### 4. Hand scanning

- a. You select the language you wish to converse in.
- b. You insert ordinary credit card into the console.
- c. You insert hand to be scanned.
- d. The database starts checking your hand print with one on file.
- e. It checks to make sure your ID matches that on the credit card.



## SPEAKING 2

---

### How to Request in English

#### Start-up

Have you requested anything in English?  
What did you request? Who did you request from?



To request that someone else does something, we use **can you, could you** and **would you**.

*Can you pass the salt?* (informal)  
*Could you open the window, please?* (neutral)  
*Would you help me move this desk?* (polite)



To request something for ourselves (to ask for permission), we use **can I, could I** and **may I**.

*Can I ask a question?* (informal)  
*Could I use your phone to make a local call?* (neutral)  
*May I interrupt for a moment?* (very polite)

#### 1. Choose the best words in italics for each situation.

a. You are a receptionist in a large company speaking on the phone to an unknown caller.

*Can I / Could I* ask who's calling?

b. You are speaking to your sister.

*Can you / Would you* give James a message? Tell him I'll be late for lunch today.

c. You want to enter a room where you left your bag. Some other people are having a meeting there.

*Can I / May I* come in? I think I left my bag here.

### Accepting Requests and Refusing Requests

If we **accept** a request, we don't just use the word **yes**. Instead, we say something like:

- Sure, I'd be glad to...;
- I'd be happy to ...;
- Sure. Just a moment;
- No problem;
- Of course;
- Certainly;



- All right;
- and then add a few more words to be friendly.

If we **refuse requests**, we don't just use the word **no**. Instead, we start with:

- I'm sorry, I can't;
  - I'm sorry, but ...;
  - I'd loved to, but ...;
  - Sorry to say that ...;
  - It sounds great, but ...;
  - That's OK, but ...;
- and then give a reason.



## 2. Match requests (1-8) with replies (a-h).

1. Can I ask you a few questions about this report?
2. Is this chair free? Could I possibly take it for our table?
3. Could you work late on Tuesday this week?
4. Would you help me move these tables to get the meeting room ready?
5. Could you give us a larger discount if we order 1,000 pieces?
6. Can you supply this item with our company logo printed on it?
7. May I help you with your bags?
8. Can we put the meeting back to next week?

- a) *Actually, I'm really busy right now. Ask me again tomorrow. I'll have more time.*
- b) *That's OK. I can manage, thanks.*
- c) *Of course. Just let me save this document and I'll be right there.*
- d) *Sorry, we can't give a bigger discount for 1,000 pieces. But we could help you with the terms of payment, perhaps another 30 days' credit.*
- e) *I'm afraid I can't, it's my daughter's birthday. Why not ask Mariana? She's probably free that evening.*
- f) *Sure. Go ahead. We're not expecting anyone else.*
- g) *Certainly, no problem. But it will add 5% to the cost and we'll need an extra day to set up the machines.*
- h) *That's fine. In fact, next week is better for me.*

## 3. With a partner, take turns to make requests and say 'No' politely.

### **Example:**

A: Can you help me with this email?

B: I'm sorry, but I'm writing an urgent report for my manager.

### **Requests**

1. use / your phone
2. confirm / my order / by email

### **Saying 'No' politely**

- a. afraid / wait / important call
- b. sorry / no access to the Internet

3. speak to / a salesperson
4. ask you to help / new software
5. call my customer back
6. talk to you / at 5 o'clock
7. come in / early / tomorrow morning

- c. sorry / she / out of the office / today
- d. sorry / have / a few problems with it too
- e. afraid / go to / the meeting / right now
- f. afraid / leave early / this afternoon
- g. sorry / fly / to Spain / tomorrow

## WRITING

---

### *An Email Request for Help*

#### ***Start-up***

Do you think people write a lot of emails to their colleagues in business environment?

#### **1. Match the word combinations with the definitions.**

1. to clear something with somebody	a. to introduce a product to the customers for the first time
2. to talk through something	b. the material used to protect goods and present them to the customer
3. to launch a product	c. the end of the working day
4. to have a good eye for detail	d. to discuss something carefully and in detail
5. packaging	e. the process of producing or improving a product to suit customers' needs
6. product design	f. to get approval or permission from somebody to do something
7. the close of business (COB)	g. to be good at noticing the smaller but important parts of things

#### **2. Read the text and do the exercises.**

**To:** Henry Peters

**Subject:** Possible help with product design

Dear Henry,

As you know, we have been working on the new perfume that we are launching in March and we are unsure about some of the packaging details. We have seen some of your creative work in the sales department and we think you have a very good eye for detail.



Do you have some time before close of business this Friday to sit down with us and talk through some of our designs? We would truly appreciate your advice on this. It shouldn't take longer than two hours of your time and we would be happy to clear it with Victoria, your department head, if necessary.

Best regards,  
Kate Williams  
*Head of Department*  
*Product Design*



**3. Choose the best answer.**

1. What department does Henry work for?
  - a. Marketing
  - b. Product Design
  - c. Sales
  - d. Research and Development
2. Which department is working on the new perfume?
  - a. Marketing
  - b. Product Design
  - c. Sales
  - d. Research and Development
3. What is happening in March?
  - a. The company will introduce the new perfume to the public.
  - b. The product design department will finish their design of the new perfume.
  - c. The sales department will stop selling perfumes.
  - d. The marketing department will design advertisements for the new perfume.
4. What is Kate requesting?
  - a. For Henry to design the perfume.
  - b. For Henry to have a meeting with the product design department to help them with the packaging of the perfume.
  - c. For Henry to ask Victoria for permission to sell the perfume.
  - d. For Henry to move to the product design department.
5. Who is the head of the sales department?
  - a. Henry
  - b. Kate
  - c. Martha
  - d. Victoria
6. When would Kate like to sit down with Henry?
  - a. Today
  - b. Some time next week
  - c. Any time between today and the end of Friday
  - d. This weekend

#### 4. Put the events in the order they are mentioned.

1. Henry has a meeting with Kate and her team.
2. The product design department starts work on the design of the new perfume.
3. Kate asks Victoria for permission to use Henry.
4. The product design department introduces the new perfume to the public.
5. Kate and her team finalise the details of the packaging for the new perfume.
6. Kate writes an email to Henry asking for help.

#### Tips

1. Some people prefer you to use their first names, and others prefer you to use their title (e.g. *Ms. / Mr.*) + their surnames. Find out what is normal in your company when writing emails.
2. Explain the reason for the request.
3. Give a deadline when possible.
4. Give dates clearly.
5. Make your request polite by starting it with *Do you think you could ...?* or *I would be grateful if you / we / I could ...*
6. If you don't know the person you are writing to well, you can finish by writing *Best regards* just before you sign your name.

#### 5. Complete the sentences with a word.

1. \_\_\_\_\_ you think you could help me with organizing the conference?
2. I \_\_\_\_\_ be grateful if you could send it today.
3. Do you think you \_\_\_\_\_ help with the presentation?
4. I would be \_\_\_\_\_ if you could come to the meeting.
5. I would be grateful \_\_\_\_\_ you could send me the report.
6. Thanks very much \_\_\_\_\_ your help.

#### 6. Restore the email.

1. That would give us time to prepare for our presentation.
2. I understand from Lisa that the prices have changed recently.
3. I would be grateful if we could have it by close of business on Thursday 11 February.
4. Best regards, Jennifer
5. We are presenting to some new clients next Monday 15 February and they are interested in our QV face creams.
6. Do you think you could email it to me?
7. Dear Keily,
8. Thanks very much for your help.
9. She mentioned that you have the new price list.

## 7. Write an email request.

### LISTENING

---

#### *What is Deep Learning?*

#### **SETTING THE CONTEXT**

1. How is deep learning related to machine learning?
2. Read the following brainy quotes. How do you understand them? Express your views on one of them.

***“AI is likely to be either the best or worst thing to happen to humanity.”***

*Stephen Hawking*

***“With artificial intelligence, we are summoning the demon.”***

*Elon Musk*

#### **ACTIVATING VOCABULARY**

**Match the English words (phrases) with their Russian equivalents.**

1. subset	a) смещение, сдвиг
2. to differentiate between	b) определять, устанавливать
3. core entity	c) умножить
4. layer	d) сфера, размах, область действия
5. times	e) основная сущность
6. bias	f) подмножество, подгруппа
7. MRI (Magnetic Resonance Imaging)	g) регулировать
8. to replicate	h) разговаривать, общаться
9. to adjust	i) МРТ (магнитно-резонансная томография)
10. to converse with	j) различать, проводить различие
11. to determine	k) повторять, имитировать
12. scope	l) слой

**Before proceeding to LISTENING COMPREHENSION section, please follow the [LINK](#) to watch the video.**

#### **LISTENING COMPREHENSION**

**1. Choose the best answer to these questions.**

1. What is Artificial Intelligence?
  - a. A computer system that emulates the decision-making ability of a human expert.
  - b. A technique that enables a machine to replicate human behavior.
  - c. The systemic computational analysis of data or statistics.
2. What is NOT mentioned in the video as the capabilities of deep learning?
  - a. To translate an entire webpage into a different language.
  - b. To determine whether a piece of fruit in a photo is a banana or an apple.
  - c. To group images based on their location.
3. According to the video deep learning is \_\_\_\_\_.
  - a. a technique to achieve AI through algorithms trained with data
  - b. a technique that enables a machine to mimic human behavior
  - c. a type of machine learning inspired by the structure of the human brain
4. How is machine learning different from deep learning?
  - a. In machine learning the needed data is conveyed to the machines by humans.
  - b. In machine learning features are picked out by the neural network without human intervention.
  - c. None of the above.
5. In a neural network the information processing takes place \_\_\_\_\_.
  - a. in the input digit
  - b. in a weighted channel
  - c. in a neuron
  - d. in the input layer
6. Which layer is located between the input layer and the output layer?
  - a. Service layer
  - b. Hidden layer
  - c. Persistence layer
7. Arrange the following statements in order to describe the working of a neural network.
  - a. The bias is added;
  - b. The weighted sum of the inputs is calculated;
  - c. Specific neuron is activated;
  - d. The result is fed to an activation function.
8. What is not listed in the video as a possible scope of application of deep learning?
  - a. Medical care
  - b. Self-driving cars
  - c. Food delivery
  - d. Customer support
9. What limitations does deep learning face?
  - a. A massive volume of data to train
  - b. Computational power
  - c. Long training time
  - d. All above

10. Some of the popular deep learning frameworks listed in the video include \_\_\_\_\_.  
 a. TensorFlow  
 b. Keras  
 c. PyTorch  
 d. Gluon

**2. Match the words that go together in the video.**

1. to identify hand-written	a) the surface
2. to face	b) support agents
3. the hidden	c) power
4. a weighted	d) without human intervention
5. to converse with customer	e) some limitations
6. self-driving	f) a well-trained network
7. computational	g) a value
8. to scratch	h) layer
9. to have vast	i) channel
10. to produce	j) cars
11. to attach	k) digits
12. to pick out the features	l) scope

**3. Discuss the following questions based on the information from the video.**

1. Is it hard for the human brain to recognize handwritten digits?
2. How is a digit presented for a neural network?
3. What is a core entity in a neural network?
4. How is information transformed from one layer to another?
5. What is a weighted channel?
6. What is bias?
7. What is necessary to produce a well-trained network?
8. How is deep learning applied in customer support service?
9. What do neural networks detect and analyze in medical care?
10. What limitations does deep learning face? Describe them in detail.

**4. Make a plan that outlines the main points of the video.**

**5. Summarize the main content of the video in 10-12 sentences using the plan.**

# UNIT 10

## SOFTWARE TESTING

### START-UP

---

#### 1. Answer the questions.

1. Why is software testing important?
2. Do you know what exactly a tester does?



### VOCABULARY

---

#### 1. Match the words with their definitions.

- |  |  |
|--|--|
| 1) build                                   | a) a set of routines, protocols and tools for building software applications   |
| 2) typo                                    | b) all of the activities that make a software system available for use   |
| 3) test script                             | c) a software and input devices by means of which a computer and its user communicate                                  |
| 4) to verify                               | d) a small mistake in a text made when it was typed or printed   |
| 5) deployment                              | e) a sequence of operations in a workplace   |
| 6) bug                                     | f) a set of instructions that will be performed on the system under test to test that the system functions as expected |
| 7) UI (user interface)                     | g) the process of testing for boundary conditions  |
| 8) API (application programming interface) | h) a pre-release version of a program  |
| 9) workflow                                | i) to prove to be true   |
| 10) edge cases                             | j) a mistake in a computer program   |

#### 2. Match the synonyms given below.

- |                   |                        |
|-------------------|------------------------|
| 1) appropriate    | a) to support          |
| 2) to be prone to | b) to make certain     |
| 3) error          | c) suitable            |
| 4) robust         | d) to perform          |
| 5) to replicate   | e) to deny             |
| 6) costly         | f) to break            |
| 7) to implement   | g) to be vulnerable to |
| 8) assurance      | h) to copy             |
| 9) deployment     | i) flaw                |

- 10) to maintain
- 11) to reject
- 12) to degrade
- 13) to make sure
- 14) query

- j) request
- k) implementation
- l) strong
- n) expensive
- m) guarantee

**3. Use the words in the box to complete the sentences and make any necessary changes.**

**verify, appropriate, prone, deployment, implement, maintain, assurance, build, error, make sure, workflow**

1. The decision will be difficult to \_\_\_\_\_.
2. \_\_\_\_\_ that you follow the instructions correctly.
3. The right software tools can improve \_\_\_\_\_ and productivity.
4. Software developers have created workflows that enable faster and more frequent \_\_\_\_\_ of software updates to the production environment.
5. A software update may be deployed several times during the development process to \_\_\_\_\_ its proper functioning and check for \_\_\_\_\_.
6. This isn't the \_\_\_\_\_ time to discuss the problem.
7. He gave an \_\_\_\_\_ that work would begin on Tuesday.
8. The college has \_\_\_\_\_ links with similar institutions in other parts of the country.
9. Working without a break makes you more \_\_\_\_\_ to error.
10. Manual testing is time-consuming, so it may be enough for small \_\_\_\_\_.

**4. Complete the table with the appropriate derivatives. Pay attention to the meaning of the words.**

Verb	Noun	Adjective / Participle
		exploratory
automate		
	complexity	
		multiple
verify		
	deployment	
		repeatable
evaluate		
	assurance	
	acceptance	

**5. Complete the sentences with the appropriate derivative of the word given in capitals.**

1. Your grammar test is only part of the \_\_\_\_\_ done in order to place you in the right level. (EVALUATE)
2. These figures are surprisingly high and they'll have to be \_\_\_\_\_. (VERIFY)
3. Scientists hope that data from the probe will pave the way for more detailed \_\_\_\_\_ of Mars. (EXPLORATORY)
4. We can \_\_\_\_\_ you of our full support. (ASSURANCE)
5. The server is used for Java application \_\_\_\_\_ on most operating systems. (DEPLOYMENT)
6. The risks can be so \_\_\_\_\_ that banks hire mathematicians to puzzle them out. (COMPLEXITY)
7. This will \_\_\_\_\_ our chances of success. (MULTIPLE)
8. We must not \_\_\_\_\_ the mistakes of the past. (REPEATABLE)

**READING** \_\_\_\_\_

**1. Scan the text and mark the Testing Types in the word-cloud. Which Testing Types haven't you found out?**

**2. Read the text and answer the questions.**

1. What is the purpose of testing?
2. What does manual testing involve?
3. Why is manual testing costly?
4. How is automated testing performed?
5. How are tests classified?
6. What are unit tests?
7. What do integration tests check?
8. What do functional tests focus on?
9. What is the essence of end-to-end tests?
10. What do acceptance tests verify?
11. Do performance tests check the behavior of the system under load?
12. When can smoke tests be useful?
13. How can one automate tests?
14. What is the goal of exploratory testing?
15. What should a good testing suite do?

**Different Types of Software Testing**

Software testing is the process of evaluating and verifying that the developed software meets the specified requirements and is defect-free.



## Manual vs. Automated testing



Manual testing is done in person, by clicking through the application or interacting with the software and APIs with the appropriate tooling. This is very expensive as it requires someone to set up an environment and execute the tests themselves, and it can be prone to human error as the tester might make typos or omit steps in the test script.

Automated tests, on the other hand, are performed by a machine that executes a test script that has been written in advance. These tests can vary a lot in complexity, from checking a single method in a class to making sure that performing a sequence of complex actions in the UI leads to the same results. It's much more robust and reliable than manual tests – but the quality of your automated tests depends on how well your test scripts have been written.

There are many different types of testing that can be used to make sure that a software product works as expected.

### **Unit tests**

Unit tests are very low level, close to the source of your application. They consist in testing individual methods and functions of the classes, components or modules used by your software. Unit tests are in general quite cheap to automate and can be run very quickly by a continuous integration server.

### **Integration tests**

Integration tests verify that different modules or services used by your application work well together. For example, it can be testing the interaction with the database or making sure that microservices work together as expected. These types of tests are more expensive to run as they require multiple parts of the application to be up and running.

### **Functional tests**

Functional tests focus on the business requirements of an application. They only verify the output of an action and do not check the intermediate states of the system when performing that action.

There is sometimes a confusion between integration tests and functional tests as they both require multiple components to interact with each other. The difference is that an integration test may simply verify that you can query the database while a functional test would expect to get a specific value from the database as defined by the product requirements.

## End-to-end tests

End-to-end testing replicates a user behavior with the software in a complete application environment. It verifies that various user flows work as expected and can be as simple as loading a web page or logging in or much more complex scenarios verifying e-mail notifications, online payments, etc.

End-to-end tests are very useful, but they're expensive to perform and can be hard to maintain when they're automated. It is recommended to have a few key end-to-end tests and rely more on lower level types of testing (unit and integration tests) to be able to quickly identify breaking changes.

## Acceptance testing

Acceptance tests are formal tests executed to verify if a system satisfies its business requirements. They require the entire application to be up and running and focus on replicating user behaviors. But they can also go further and measure the performance of the system and reject changes if certain goals are not met.

## Performance testing

Performance tests check the behaviors of the system when it is under significant load. These tests are non-functional and can have the various form to understand the reliability, stability, and availability of the platform. For instance, it can be observing response times when executing a high number of requests, or seeing how the system behaves with a significant amount of data.

Performance tests are by their nature quite costly to implement and run, but they can help you understand if new changes are going to degrade your system.

## Smoke testing

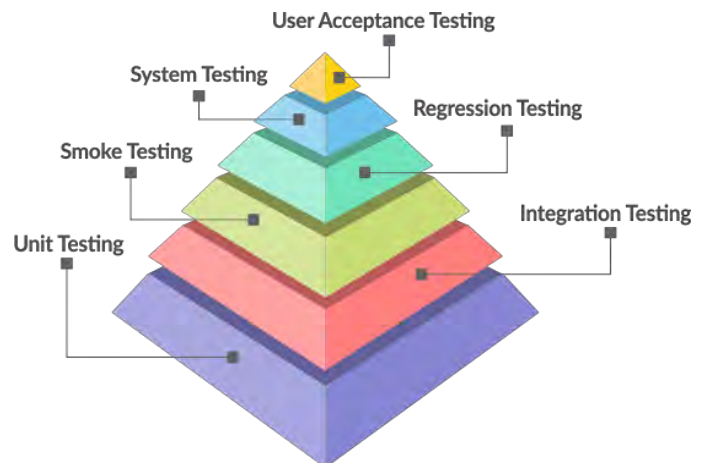
Smoke tests are basic tests that check basic functionality of the application. They are meant to be quick to execute, and their goal is to give you the assurance that the major features of your system are working as expected. Smoke tests can be useful right after a new build is made to decide whether or not you can run more expensive tests, or right after a deployment to make sure that the application is running properly in the newly deployed environment.

## How to automate your tests?

An individual can execute all the tests mentioned above, but it will be very expensive and counter-productive to do so. As humans, we have limited capacity to perform a large number of actions in a repeatable and reliable way. But a machine can easily do that rapidly and will test that login/password combination works for the 100th time without complaining. To automate your tests, you will first need to write them programmatically using a testing framework that suits your application.

## Exploratory testing

The more features and improvements go into your code, the more you'll need to test to make sure that all your system works properly. And then for each bug you fix, it would be wise to check that they don't get back in newer releases.



So, the question is whether it is still worth doing manual testing? The short answer is yes, and it should be focused on what is called exploratory testing where the goal is to uncover non-obvious errors.

This type of testing is expensive by nature but is quite helpful to uncover UI issues or verify complex user workflows. It's something especially worth doing whenever a significant new capability is added to your application to help understand how it behaves under edge cases.

Finally, it's important to talk about the goal of testing. While it's important to test that users can use your application (I can log in, I can save an object) it is equally important to test that the system doesn't break when bad data or unexpected actions are performed. You need to anticipate what would happen when a user makes a typo, tries to save an incomplete form or uses the wrong API. You need to check if someone can easily compromise data, get access to a resource they're not supposed to. A good testing suite should try to break your app and help understand its limit [30].

## **2. Read the text again and say whether these statements are true or false.**

1. Software testing is the process to verify that the software is accurate and works according to the requirements.
2. Manual testing is cheap.
3. Automated tests are more robust and reliable than manual ones.
4. Unit tests verify that various user workflows perform as expected.
5. Integration tests verify that different modules or services used by your application work well together.
6. Functional tests check the intermediate states of the system when performing an action.
7. End-to-end tests can be hard to maintain when they're automated.
8. Acceptance tests verify individual methods and functions of the classes, components or modules used by your software.
9. Smoke testing gives you the assurance that all minor features of your system are working as expected.
10. Exploratory testing helps understand how an application behaves under edge cases.
11. A tester should anticipate what would happen when a user makes a typo or uses the wrong API.
12. A good testing suite should ignore any breaking changes in the app and help understand its capabilities.

## **3. Match the Testing Types with the definitions. Follow the [LINK](#) .**

## **4. Match the words that go together in the text to make word combinations.**

- |                 |                          |
|-----------------|--------------------------|
| 1. to work      | a. user workflows        |
| 2. to replicate | b. business requirements |
| 3. to fix       | c. properly              |

- |               |                         |
|---------------|-------------------------|
| 4. to give    | d. a number of requests |
| 5. to run     | e. non-obvious errors   |
| 6. to uncover | f. as expected          |
| 7. to satisfy | g. assurance            |
| 8. to execute | h. a bug                |
| 9. to verify  | i. a user behavior      |

5. Make two sentences with any word combinations from Exercise 4.

6. Develop the ideas about Testing Types with the help of Testing Types Mind Map. Follow the [LINK](#).

7. Make a short summary of the text.

## LANGUAGE FOCUS

---

### THE INFINITIVE

Consult grammar rule using the [LINK](#).

1. Insert *to* where necessary.

The goal of software testing is not \_\_\_\_ (find) bugs or \_\_\_\_ (make) software better. You can never \_\_\_\_ (find) all the bugs or defects in a piece of software and you can never \_\_\_\_ (test) every possible input into the software (for any non-trivial app). So, the main idea behind software testing is \_\_\_\_ (reduce) the risk that the customer is greatly impacted when using the software. Customers can \_\_\_\_ (be) impacted by the frequency of an error or by the severity of the problem. As a software developer, you should \_\_\_\_ (be) concerned with the quality of your code. If you try \_\_\_\_ (test) your code thoroughly and \_\_\_\_ (find) a bug before you hand it over to a tester, it will let your team \_\_\_\_ (save) a lot of time in future.

We use the <i>to</i> -infinitive after certain verbs:			
<i>choose</i>	<i>hope</i>	<i>persuade</i>	<i>agree</i>
<i>decide</i>	<i>intend</i>	<i>plan</i>	<i>promise</i>
<i>expect</i>	<i>learn</i>	<i>prefer</i>	<i>refuse</i>
<i>forget</i>	<i>like</i>	<i>remember</i>	<i>tell</i>
<i>hate</i>	<i>warn</i>	<i>want</i>	<i>would like / love</i>

2. Fill in the correct verb to complete each sentence. Use the letters in brackets to make the verb.

- It was a lovely day so we \_\_\_\_\_ to go cycling. (cdddee)
- We're \_\_\_\_\_ to get some theatre tickets if they're not too expensive. (ghinop)
- Don't \_\_\_\_\_ to buy some bread on the way home. (efgort)

4. Andrew was very busy but he \_\_\_\_\_ to help his friends. (adeegr)
5. Emily \_\_\_\_\_ to bring her daughter a souvenir from Paris. (deimoprs)
6. The boss \_\_\_\_\_ to see you in his office. He's waiting for you now. (anstw)
7. I'm really tired. I \_\_\_\_\_ to go home now. (deikllouw)
8. The film starts at six, so I \_\_\_\_\_ everyone to be at the cinema at five thirty. (ldot)
9. Computer security specialists always \_\_\_\_\_ employees not to give out their personal information to strangers. (adenrw)
10. We \_\_\_\_\_ our landlady not to increase the rent this year. (addeeprsu)

**3. Complete the sentences with the *to*-infinitive. Use the correct form of the verbs in the box.**

**produce, use, test, improve, identify, write, fix**

1. Do you need this course \_\_\_\_\_ your testing skills?
2. User Interface testing is used \_\_\_\_\_ the look and feel of an application.
3. Software testing is performed \_\_\_\_\_ the quality product.
4. Katalon Studio, automation testing tool, is sophisticated enough \_\_\_\_\_ for both automated and exploratory testing.
5. Bugs are prioritized and sent to developers \_\_\_\_\_.
6. I've created some software test cases \_\_\_\_\_ the types of defects.
7. Selenium, automation testing tool, is flexible enough \_\_\_\_\_ test scripts in many different languages.

We also use the *to*-infinitive to express purpose (to answer why?) with **in order to** and **in order not to** or **so as to** and **so as not to**:

*We started our journey early in order to avoid the traffic.  
They spoke quietly so as not to disturb the passengers.*

We also use the *to*-infinitive to express reason after **too / enough constructions**:

**Enough** comes after adjectives.  
*I'm not tall enough to reach the top shelf.  
I'm too tired to go anywhere.*

**4. Match the expressions to make sentences with the *to*-infinitive to express purpose or reason.**

- |                                   |  |
|-----------------------------------|--|
| 1. I looked on Wikipedia          | a. to see my grandmother.                        |
| 2. Julia went to work early today | b. to see if it functions according to the plan. |
| 3. Your marks are good enough     | c. to find the answer.                           |
| 4. Viktor's gone to the ATM       | d. to stop climate change.                       |
| 5. Next weekend I'm going to      | e. to buy.                                       |

Grodno

6. We are not acting fast enough                      f. so as not to be late for an important meeting.
7. This smartphone is too expensive                      g. to get some money.
8. The programmer analyst tests the code                      h. to study engineering at university.

We use the *to*-infinitive after certain **adjectives**:

Nick was surprised to see me.

<i>able</i>	<i>likely</i>	<i>relieved</i>	<i>pleased</i>
<i>unable</i>	<i>unlikely</i>	<i>disappointed</i>	<i>proud</i>
<i>ready</i>	<i>willing</i>	<i>glad</i>	<i>surprised</i>
<i>prepared</i>	<i>unwilling</i>	<i>happy / unhappy</i>	<i>sorry</i>

We often use **it + be** followed by an adjective to give opinions:

It was difficult for me to understand what the manager was saying.

It's kind of you to help.

<i>easy</i>	<i>possible</i>	<i>kind</i>
<i>difficult</i>	<i>impossible</i>	<i>right</i>
<i>hard</i>	<i>nice</i>	<i>wrong</i>

**5. Put the words and expressions in the right order to make sentences.**

1. hard / a good job / to find / is / nowadays / it.
2. it / online / train tickets / to buy / is / possible?
3. wrong / to borrow / his father's / Pavel / asking / car / was / without.
4. we / unlikely / another pay rise / are / this year / to get.
5. all / she had passed / to hear / her exams / was / that / Emily / relieved.
6. is / any further / its prices / to reduce / it / for the business / impossible.
7. been / for me / in public / difficult / always / to speak / it's.
8. to your party / of you / us / was / very nice / to invite / it.
9. To the next / players / likely / engaged / are / version / to upgrade / of the game.

**6. Complete the sentences with your own ideas using the *to*-infinitive.**

1. He is clever enough to \_\_\_\_\_.
2. QA engineers are focusing on \_\_\_\_\_ to \_\_\_\_\_.
3. It's difficult for us to \_\_\_\_\_.
4. We decided to use \_\_\_\_\_ in order to \_\_\_\_\_.
5. \_\_\_\_\_ would be much more useful.
6. It's my job to \_\_\_\_\_.

**7. Complete the second sentence so that it means the same as the first, using the word in bold. Practice Complex Object with the Infinitive.**

**Example:**

*Paul reproduced and fixed the bugs with more detailed steps in the bug report.*

**(allow)**

*More detailed steps in the bug report allowed Paul to reproduce and fix the bugs.*

1. We create test cases faster using hundreds of built-in keywords in Katalon Studio.

**(let)**

Hundreds of built-in keywords .....

2. I found a bug in the code with extra 10 minutes. **(enable)**

Extra 10 minutes .....

3. The development manager says that you have to re-run the test to make sure the bug is valid. **(want)**

The development manager .....

4. They use this automation tool to develop and test APIs (Application Programming Interface). **(allow)**

This automation tool .....

5. The task was rather difficult and urgent, so I had to stay overtime at the office.

**(make)**

Rather difficult and urgent task .....

6. – Why don't you join our Quality Assurance team? **(would like)**

I .....

7. QA teams generate better test cases with the help of Machine Learning applications. **(let)**

Machine Learning applications .....

8. Nowadays more goods and services are exchanged electronically by e-commerce. **(enable)**

Nowadays e-commerce .....

**8. Work with your partner. Make the right order of the sentences and practice short conversations using Complex Object.**

1. – it / to / possible / be / the meeting / would / move?  
me / what / see / I / let / do / can.

2. – I'm sorry/ the office / I'm / at the moment / in / not.  
know / you / could / let / come / me / back / when / you?

3. – calculations / you / are / do / correct / think / these?  
me / a little / think / let.

4. – I doubt if / can / Igor / this / do / task.  
give / let / a chance / him.

5. – is / a new manager / to deal / hard / with.  
makes / you / what / so / think?

6. – are / still / why / you / in the office?  
told / some / the manager / me / extra / to do / tasks.

**9. Practice the use of *to*-infinitive in short conversations. Work in the group of three. Use the prompts.**

**Student A:** *You are a Project manager. Ask your subordinate (Student B) to do some tasks.*

**Prompt:** - *I would like you ....., - I want you ....*

1. – execute test scripts and review the results
2. – evaluate product code according to specifications
3. – collaborate with QA engineer to develop a test plan
4. – report bugs and errors to the development team
5. – execute test cases and analyze the results
6. – conduct post-release testing
7. – execute exploratory testing to verify the system under edge cases
8. – review and analyze system specifications

**Student B:** *You are a QC tester. Agree to do the task.*

**Prompt:** - *OK, sure.*

*Yes, of course.*

*Yes, certainly.*

*Right, I'll do it today.*

*Sure, no problem.*

**Student C:** *You are a QC tester. Ask your colleague (Student B) what the Project manager wanted (asked / told) him / her to do.*

**Student B:** *Say what the Project manager wanted (asked / told) you to do.*

**10. Make a new sentence with Complex Subject using the verb in brackets.**

**Example:**

*The code works on my machine. (seem)*

*The code seems to work on my machine.*

1. Machine Learning projects for testing are very promising. (**appear**)
2. The test scripts have been written. (**seem**)
3. Test automation tools improve test efficiency. (**prove**)
4. The concept of test automation has been applied for about 20 years. (**tend**)
5. In the entire mobile app development process, the most tedious and complicated task is app testing. (**turn out**)
6. My testing skills are getting better. (**seem**)



## 11. Make a new sentence with Complex Subject using the verb in brackets.

### *Example:*

A good AI-assisted tool generates test scenarios. (**say**)

A good AI-assisted tool is said to generate test scenarios.

1. Many organizations will implement ML projects in the coming year. (**know**)
2. Test automation tools have increase test coverage. (**suppose**)
3. Test automation is implemented in many QA processes. (**expect**)
4. Software testing evaluates the functionality of a software app. (**sure**)
5. Test costs have been reduced by applying test automation tools. (**report**)
6. AI will detect and eliminate redundant test cases. (**likely**)
7. API testing checks the functionality, reliability, performance and security of the app. (**know**)
8. A university graduate is capable of coping with such a situation. (**expect**)
9. He relinquished control of the company. (**force**)
10. The meeting won't be held on Thursday. (**unlikely**)
11. Natalia is presenting her report in the meeting today. (**certain**)

## 12. Correct the mistakes if necessary. There may be more than one mistake in some sentences.

1. Security testing will continue be a popular topic in the following year.
2. Unit testing is done to be checked whether the individual modules of the source code are working properly.
3. Automation helped them reduce test cycle time.
4. Some companies are still not confident to enough invest in AI.
5. Handle with a vast amount of workload and information the organizations apply AI solutions.
6. Big data testing expects to become popular next year.
7. Test automation tools developers must continuously to update and upgrade tools to fulfill the QA teams demands.
8. Automated testing in QA processes is seemed to provide continuous feedback loops.
9. Important find defects in the early stages of the software development lifecycle.
10. Big data testing lets industries to deal with huge data volumes and diverse data types.
11. Be the first see what is coming and become part of the process.
12. Construct 3 can run on Windows, Macs and Linux machines.

## SPEAKING 1

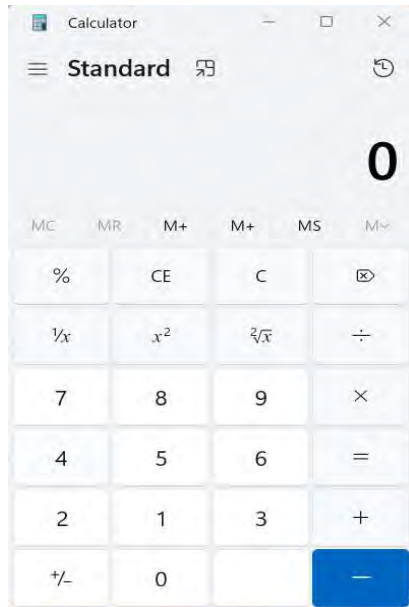
---

### *Fixing bugs*

How many bugs can you find on this buggy windows calculator?

To find the bugs, compare it to the correct one on your computer. Look for unknown words in a dictionary.

Bug count: over 5



## SPEAKING 2

### Giving Advice

#### Start-up

Do you often ask for advice? Do you often give advice yourself?

**1. Look at the phrases for giving advice in boxes A and B of the table. Answer the questions:**

1. Which phrases are examples of strong recommendations?
2. Which phrases are examples of careful or friendly suggestions?
3. Which phrases are followed by the *-ing* form of the verb?
4. Which phrases are followed by the base infinitive?

Giving advice		Accepting / Rejecting advice
A	B	C
- You should (n't) ...	- Have you tried ...?	- Agreed, good idea. I'll try that.
- It's (not) a good idea to ...	- Have you considered ...?	- Yes, you're quite right.
- It's (un) wise to ...	- How about ...?	- Yes, I think that would work really well.
- It's important (not) to ...	- What about ...?	- OK, point taken.

- You could ...	- Why don't you ...?	- All right, this is great.
- You might want to ...	- Have you thought of ...?	- You've got a point, (but ...)
- You ought to ...		- I see what you mean, (but...)
		- I'm not so sure about that.
		- I don't think that will work.
		- It's going to be difficult.
		- You're joking!

**2. Match the beginnings of the sentences (1 – 10) with the endings (a – j) to make pieces of advice for new employees.**

- |                        |  |
|------------------------|--|
| 1. You should          | a) expect to finish on time every day.                     |
| 2. It's unwise         | b) learn to set goals.                                     |
| 3. It's a good idea    | c) dress appropriately.                                    |
| 4. You should          | d) to make too many personal phone calls.                  |
| 5. You shouldn't       | e) to learn proper meeting behavior.                       |
| 6. It's a good idea to | f) accept responsibility for mistakes.                     |
| 7. It's important      | g) learn who does what and how things get done.            |
| 8. You shouldn't       | h) not to neglect forming effective relationships at work. |
| 9. You should          | i) to reduce stress by balancing your life.                |
| 10. You ought          | j) expect that you will like every task.                   |

**Study the phrases for asking for advice. Try to use them in further tasks.**

Asking for advice
D
<p>I'm having a problem / problems with ...</p> <p>Can you give me any advice?</p> <p>Do you have any ideas about how to ...?</p> <p>What do you suggest I do about ...?</p> <p>What would you do?</p>

**3. Work in pairs. Use the phrases from boxes A, B, C, and D above to ask, give, accept or reject advice in the following situations.**

- how to get a well-paid job;
- how to be popular in the office;
- how to manage your time effectively;
- how to keep customers happy;
- how to get a promotion quickly;
- how to manage stress;
- how to concentrate on work.



#### 4. Work with your partner, take turns asking for and giving advice.

##### Student A

You have recently started work with a well-known firm of management consultants. Ask your partner for advice about the problems below, and react to their suggestions.

1. You work from 8 am to 7 pm every day but you can never finish your work.
2. You find it difficult to set goals.
3. Your clients don't take you seriously: they think you're too young for the job.
4. You have lots of ideas to share in meetings, but your boss keeps interrupting you.

##### Student B

Your partner will tell you about their problems. Suggest two or three alternatives for each problem.

#### 5. Work with your partner, take turns asking for and giving advice.

##### Student C

You have recently started work in a governmental organization. Ask your partner for advice about the problems below, and react to their suggestions.

1. Your boss doesn't trust you: she checks every document you write and always manages to find something wrong.
2. You are frustrated by all the procedures you have to respect: even the simple tasks seem to take a long time.
3. You find it difficult to sleep at night because your job is so stressful.
4. You hate writing reports, but it's an important part of your job.

##### Student D

Your partner will tell you about their problems. Suggest two or three alternatives for each problem.



## WRITING 1

---

### Compared analysis

**1. Match the words that go together in the paragraph Manual vs. Automated testing.**

- |                          |                        |
|--------------------------|------------------------|
| 1. to be prone to        | a. in advance          |
| 2. to be done            | b. robust and reliable |
| 3. to vary a lot         | c. human errors        |
| 4. to omit steps         | d. typos               |
| 5. to perform            | e. with the software   |
| 6. to write test scripts | f. in complexity       |
| 7. to make               | g. in person           |
| 8. to interact           | h. by a machine        |
| 9. to be much more       | i. in the test scripts |

**2. Write a comparative analysis of Manual testing and Automated testing. Here are some prompts to help you with the task.**

- Compared to / with ... (Compared to automated testing, manual testing ...)
- To be similar to... (Manual testing is / isn't similar to ...)
- Unlike ... (Unlike manual testing, automated testing ...)
- whereas/ while (Manual testing is ..., while / whereas automated testing is ...)
- On the one hand, on the other hand (On the one hand, manual testing is ..., on the other hand it is...)
- In comparison with ... (In comparison with manual testing, automated testing is ...)
- In contrast to ... (In contrast to automated testing, manual testing is ...)
- There is / isn't a huge difference between ...
- To be (more) likely to do smth ... (Manual testing / Automated testing is more likely to be used for ...)

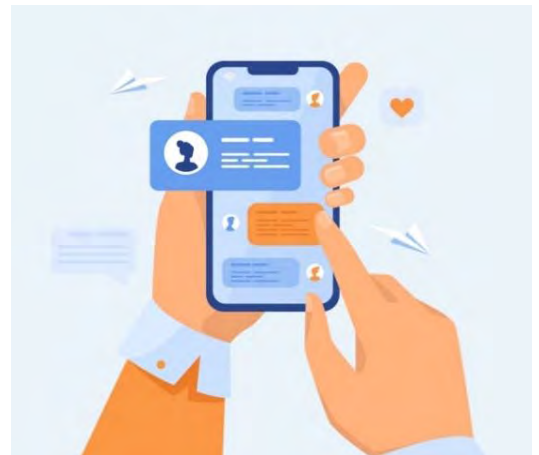
## WRITING 2

---

### A Thank-you Message

#### Start-up

When was the last time you thanked a groupmate / friend or colleague for something?



### 1. Put the sentences in the correct group.

About the past	About the future
----------------	------------------

1. I'll be in touch again soon.
2. Thank you for your help on the project last month.
3. We couldn't have finished it on time without you.
4. I look forward to working with you more closely this year.
5. We hope to work with you again on future projects.
6. You stepped in to support us.

### 2. Match the words with the definitions.

1. to step in	a. high level of knowledge in a particular field
2. to catch up on	b. necessary, essential
3. to put in	c. to become involved in a difficult situation in order to help
4. expertise	d. the act of working together with other people to create something
5. to be in touch	e. to do work, make effort
6. vital	f. communicating with someone regularly
7. collaboration	g. to do something you did not have time to do earlier

### 3. Read the text and tips and do the exercises.

**From:** Ivan  
**To:** Maria  
**Subject:** Thanks

Hi Maria,

I hope you're well.

I'm just writing to say thanks for your help on the project last month. We really appreciate you stepping in to support us. I know you had to put in extra hours to catch up on your own work, so thank you very much.

Your expertise was vital for this project and we couldn't have finished it successfully without you. You really helped us and we hope to work with you again on future projects.

I'll be in touch again soon about possible future collaborations. I look forward to working with you more closely this year.

All the best,  
Ivan

## Tips

1. Start with a friendly comment:

*I hope you're well.*

2. It's usually best to use an informal style with colleagues:

*Hi Maria, ...*

*Thanks for your help.*

3. Keep it short.

4. Mention the good work they did and the positive effect of it:

*Your expertise was vital for this project.*

*We couldn't have finished it successfully without your help.*

5. End with a positive comment about future collaboration:

*I hope to work with you more closely in future. I look forward to working with you again.*

### 4. Are the sentences true or false?

1. Ivan and Maria are both working on the same project at the moment.
2. Ivan and Maria usually work on the same team.
3. Maria helped Ivan and his team finish a project on time.
4. When Maria helped Ivan, she also completed her own work very easily.
5. Maria has specialist knowledge which helped the project.
6. Ivan wants to work with Maria again.

### 5. Complete the sentences with the phrases from the box.

work with you, just, writing, very helpful, forward to hearing, thanks again, a lot of expertise

1. I'm \_\_\_\_\_ to say thanks for your help.
2. Your work on this was \_\_\_\_\_.
3. I know you had to catch up on your own work, so \_\_\_\_\_.
4. You have \_\_\_\_\_ in this area.
5. I hope to \_\_\_\_\_ more closely this year.
6. I look \_\_\_\_\_ your thoughts on the new project.

### 6. Write one word to fill each gap.

1. I'm just writing \_\_\_\_\_ say thanks \_\_\_\_\_ your help with the presentation last week.
2. Thank you so much for stepping \_\_\_\_\_ to help.
3. I know you had to put \_\_\_\_\_ extra hours to catch \_\_\_\_\_ on your own work.
4. We hope to work \_\_\_\_\_ you again \_\_\_\_\_ future projects.
5. I'll be \_\_\_\_\_ touch again soon.

6. I look forward \_\_\_\_\_ working with you more closely.

7. **Look at a letter expressing thanks. Pick up words and phrases typical to the letter of this type.**

Dear May,

Thank you for referring us to Xenest Industries.

I met with Jae Yun last week in Beijing, and he is very interested in our security alarm systems. Not only does Xenest need security in its Beijing warehouse, but it also has storage centers in Fushun and in Harbin.

I hope to see you soon in Beijing so I can thank you personally for your introduction.

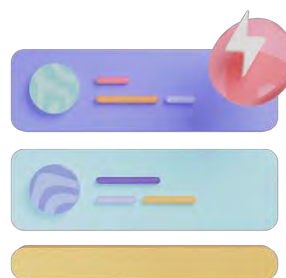
Again, thank you for putting me in touch with your contacts in Beijing.

Yours,

Lisa

8. **The body of a thank-you letter generally has four parts. Match the headings (a – d) with parts of the letter (1 – 8).**

- a. **Opening:** tell why you are writing.
- b. **Focus:** give specific information.
- c. **Action** (optional): show appreciation
- d. **Closing:** restate the main idea



- 1. Thanks for everything you did to make my first trip to Dublin so enjoyable.
- 2. I look forward to the opportunity to do you a similar favour.
- 3. Again, I want to thank you for your kind and generous contribution.
- 4. Your intern program gives students an opportunity to learn about the software used in engineering.
- 5. The entire staff join me in thanking you for sponsoring our weekend retreat.
- 6. I must again say thanks for your support. It means a lot to me.
- 7. The enclosed bonus check is a small token of my appreciation.
- 8. The project was very difficult, but you and your team did a wonderful job.

9. **Look through some more thank-you letters so that you have more samples of a different style. What occasions are they written to express gratitude for?**

I wanted to officially thank you for all of your hard work during this project over the last two weeks. You managed to pack a month's worth of excellent research, leadership and overtime into a 14-day period.

I understand that the effort and dedication you put into this project kept you from spending valuable time with your family and friends. In appreciation for this commitment, I would like to offer you a 3-day paid vacation. Please contact Jack Brown at HR to work out the details.

Thank you again, and keep up the good work!



Dear Mr. Thomson,

On behalf of ABC Co., I would like to thank you for filling out the survey sent to you on December 5, 20\_\_ . We appreciate you taking the time to let us know how we're doing and how we can improve our services.

It's important to us to learn what our customers are looking for. We are dedicated to building long-lasting relationships, so your feedback is always valued.

If you have any additional questions or concerns, please don't hesitate to call us at (555) 555-1212.

Sincerely,

Liam Taylor

Dear Mr. Jacobs,

Thank you so much for your quick response! It was helpful to get that information quickly and I appreciate you helping me resolve that issue in a timely manner.

I will definitely refer my friends and coworkers to DEF Co. Your customer service has been nothing but positive and accommodating!

Best regards,

Jack Richardson

## 10. Writing a letter expressing gratitude.

You have a new job with XYZ company. You have been referred to the company by your former supervisor. Thanks to this, you have been offered the job of the back-end developer. You will begin working next week.

Write a thank-you letter to your former supervisor who has given you a *job referral* (*направление (рекомендация) на работу*). Use the guidelines below and the information in the introduction to the task.

### Opening:

- Greet your former supervisor and thank them for referring you for your job application. Advise them that you received the job offer.

### Focus:

- Advise them that you received the job offer. Give them updates on when you will start with your new job, or on how you are performing in your new job.

- Extend your gratitude to the work experience, skills and knowledge you gained by working with your previous company or department. Assure them you will use these lessons in your future career.

### Closing:

- Conclude the letter by thanking your supervisor again.

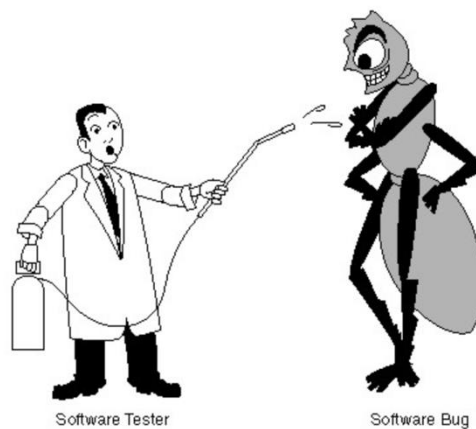
## LISTENING

---

### *What is Software Testing?*

#### **SETTING THE CONTEXT**

1. Why is software testing critical?
2. Some programmers believe that people with weak coding skills are assigned to testing. Are they right? Why / why not?
3. Continue a brainy quote by Paul R. Ehrlich, a famous American biologist:  
*To err is human, but ...*
4. Look at the picture. Do you know how this paradox is called in software testing?



#### **ACTIVATING VOCABULARY**

##### **1. Match the English words (phrases) with their Russian equivalents.**

1. to release	a) возрастать в геометрической прогрессии
2. end-user	b) оценка рисков
3. defect free	c) ошибка, заблуждение
4. to malfunction	d) превозмочь; преодолеть
5. failure	e) доказательство правильности
6. bank account	f) резюме, краткое повторение
7. to rise exponentially	g) невыявленные дефекты
8. exhaustive testing	h) время осуществления проекта
9. risk assessment	i) конечный пользователь
10. to test thoroughly	j) удовлетворять потребности
11. to overcome	k) работать со сбоями
12. precautions	l) отвечать нуждам и потребностям клиента
13. undiscovered defects	m) выпускать в свет
14. proof of correctness	n) неудача, провал

15. to meet the needs and requirements of the client	o) меры предосторожности
16. to fulfill the user's needs	p) тщательно тестировать
17. fallacy	q) бездефектный
18. quick recap	r) банковский счет
19. project execution time	s) исчерпывающее тестирование

**2. Match the words having a similar meaning.**

1. bug	a. to fulfill the needs
2. to meet the requirements	b. to make mistakes
3. proof	c. delusion
4. to review	d. evaluation
5. fallacy	e. accident
6. assessment	f. to revise
7. failure	g. evidence
8. to err	h. defect

**Before proceeding to LISTENING COMPREHENSION section, please follow the [LINK](#) to watch the video.**

***LISTENING COMPREHENSION***

**1. Choose the best answer to these questions.**

- Correctness, completeness and quality of developed computer software should be checked \_\_\_\_\_.
  - by the customers
  - right after the public launch of the product
  - before the product is released to the end-users
- Software testing checks that \_\_\_\_\_.
  - storage capacity is full
  - the software system is defect free
  - the software development life cycle has been launched
- What costly US accident is mentioned in the video?
  - The failure to launch a 1.2 billion dollar military satellite;
  - Crediting the bank accounts of 823 clients with 920 million U.S. dollars;
  - The destruction of NASA Mars Polar Lander.
- What is not listed as a possible scenario when you are moving a file from folder A to folder B?
  - Folder B is on a shared drive and storage capacity is full.
  - The file is infected with a virus.
  - Folder B already has a file with the same name.

- d. You do not have the security rights to paste the file in folder B.
5. What is called exhaustive testing?
    - a. Software testing that makes you feel exhausted.
    - b. Testing performed by a machine that executes a test script.
    - c. A test approach in which all possible data combinations are used for testing.
  6. What is the “pesticide paradox”?
    - a. The situation when a small number of modules contains most of the bugs detected.
    - b. The situation when the same tests are repeated over and over again, eventually the same set of test cases can’t no longer find any new bugs.
    - c. The phenomenon when the system is immune to any bugs.
  7. What does “defect clustering” mean?
    - a. A small number of modules contain most of the defects.
    - b. Some modules don’t need to be tested.
    - c. Errors are evenly distributed between risky modules.
  8. Finding and fixing defects doesn’t help if \_\_\_\_\_.
    - a. the system build meets the user’s needs
    - b. you make sure your software product is 99% defect free
    - c. the system build is unusable and doesn’t fulfill the user’s requirements
    - d. you work extra hard and take all precautions
  9. Early testing states that \_\_\_\_\_.
    - a. software is full of errors
    - b. software has undiscovered defects
    - c. any defects in the requirements or design phase should be captured as well
  10. The seventh testing principle states that testing should \_\_\_\_\_.
    - a. start as early as possible
    - b. be content-dependent
    - c. focus on testing commercial off-the-shelf applications

**2. Match the words that go together in the video.**

1. public	a) the user's needs
2. to reduce the probability	b) off-the-shelf application
3. to take	c) extra hard
4. exhaustive	d) of undiscovered defects
5. 99 % bug	e) cases
6. to risk	f) life cycle
7. to fulfill	g) launch
8. to work	h) free
9. to test a commercial	i) all precautions
10. to review test	j) capacity
11. software development	k) one’s reputation

**3. Discuss the following questions:**

1. How can you now define software testing?
2. What can potentially cause monetary or human loss?
3. Why is software testing important?
4. Is exhaustive testing possible? Why?
5. What is an optimal amount of testing based on?
6. What operations are likely to cause an operating system to fail?
7. What measures should be taken to overcome so-called «pesticide paradox»?
8. What does testing reduce?
9. What does it prove if no defects are found?
10. What are the seven testing principles?

**4. Make a plan that outlines the main points of the video.**

**5. Summarize the main content of the video in 10-12 sentences using the plan.**



# UNIT 11

## CYBERSECURITY

### START-UP

---

#### 1. Answer the questions.

1. Has your computer ever been infected by a virus? If yes, what damage was done to it? Did you try to fix the problem yourself?

2. Do you know any ways of protecting information in the digital world?



### VOCABULARY

---

#### 1. Match the words with their definitions.

- |                      |   |
|----------------------|---|
| 1) computer security | a) irrelevant messages sent over the Internet, typically to a large number of users, for the purposes of advertising, phishing, spreading malware, etc. |
| 2) hacking           | b) conversion of data into a special code to prevent unauthorized access;   |
| 3) firewall          | c) an action taken to avoid a dangerous or undesirable event  |
| 4) precaution        | d) a computer system that isolates another computer from the internet in order to prevent unauthorized access   |
| 5) encryption        | e) an act of breaking a rule, law, or practice  |
| 6) spam              | f) protection of computer systems and networks from the theft of or damage to their hardware, software, or electronic data                              |
| 7) threat            | g) to stop smth. from happening   |
| 8) breach            | h) to remove completely or destroy  |
| 9) to prevent        | i) a possible danger  |
| 10) to erase         | g) gaining unauthorized access, breaching defense   |

#### 2. Match the synonyms given below.

- |                  |                   |
|------------------|-------------------|
| 1) linked        | a) danger         |
| 2) threat        | b) to comply with |
| 3) precautionary | c) proper         |

- |                  |                 |
|------------------|-----------------|
| 4) thief         | d) connected    |
| 5) adequate      | e) additional   |
| 6) to conform to | f) dangerous    |
| 7) supplemental  | g) to remove    |
| 8) harmful       | h) confidential |
| 9) to eliminate  | i) preventive   |
| 10) sensitive    | j) intruder     |

**3. Fill in the gaps with the words from the box.**

**identity theft, security, harm, unauthorized, secure, to prevent, breach, encryption, precautionary, sensitive, threats**

1. \_\_\_\_\_ these malicious agents from infecting computers, Internet \_\_\_\_\_ specialists recommend that home users take several \_\_\_\_\_ steps.
2. In a \_\_\_\_\_ of computer security, company's \_\_\_\_\_ information has been uploaded by \_\_\_\_\_ users.
3. The new law tries to protect consumers against \_\_\_\_\_ and credit card fraud.
4. Firewalls check all incoming and outgoing information for potential \_\_\_\_\_.
5. Viruses aim to do real \_\_\_\_\_ to your computer software and hardware.
6. The company's \_\_\_\_\_ software allows \_\_\_\_\_ credit card transactions over the Internet.

**4. Complete the table with the appropriate derivatives. Pay attention to the meaning of the words.**

Verb	Noun	Adjective / Participle
protect		
		customizable
	attachment	
revolve		
	security	
		encrypted
prevent		
	identity	
		prevalent
destroy		

**5. Complete the sentences with the appropriate derivative of the word given in capitals.**

1. Effective crime \_\_\_\_\_ must be our main goal. (PREVENT)
2. It's important to keep your documents \_\_\_\_\_. (SECURITY)
3. The Earth makes a yearly \_\_\_\_\_ around the Sun. (REVOLVE)

4. First of all, we must \_\_\_\_\_ the problem areas. (IDENTITY)
5. If you would like to receive further information, return the \_\_\_\_\_ form.  
(ATTACHMENT)
6. But you can \_\_\_\_\_ that to receive updates less or more frequently.  
(CUSTOMIZABLE)
7. The \_\_\_\_\_ system used to send and receive messages wasn't complex.  
(ENCRYPTED)
8. \_\_\_\_\_ of the environment is one of the most serious challenges we face.  
(DESTROY)

## READING

---

### 1. Read the text and answer the questions.

1. What are the main computer security threats?
2. What precautionary measures can help Internet and computer security?
3. What does computer security help protect?
4. What types of computer security prevent intruders from getting at information stored on a computer?
5. How does a firewall work?
6. What harmful actions can be performed by viruses?
7. What is the purpose of anti-virus programs?
8. What is the difference between a firewall and an anti-virus program?
9. What is the most important principle of both Internet and computer security?
10. What other precautionary measures should be taken to stay safe online?

### Internet Security

Internet and computer security are linked concepts for any person who owns a computer with Internet access. While the Internet can provide many tools to protect against hacking and viruses, it is also the primary source of these major computer security threats. Attaching a computer to the Internet introduces greatly increased risks for security breaches. Nevertheless, Internet and computer security can both be improved through precautionary measures, such as anti-virus protection, firewalls, and Internet safety techniques.

Computer security helps protect personal data and information from being viewed or uploaded by unauthorized users. In a computer that does not have an Internet connection, most security precautions will revolve around preventing access to a user that physically takes over the computer. Password protection and encryption programs are two types of computer security that prevent a thief or unauthorized user from getting at information stored on a computer. Once a computer is hooked up to the Internet, however, threats become far more prevalent and complicated. In addition to password protection and encryption, Internet-using computers may require many additional programs and procedures in order to provide adequate protection from hackers and viruses.



Good Internet and computer security will help prevent hackers from accessing computer files. One primary method for hacking prevention is a hardware or software program known as a firewall. Firewalls are a type of customizable protection, which acts as a checkpoint for all incoming and outgoing information on a computer or network. If a piece of information does not conform to firewall's settings, it will not be permitted to pass through the system without permission. Most modern operating systems provide a built-in firewall, but external applications can also be purchased for those who wish supplemental firewall protection.

Internet and computer security also aim to protect a network from viruses, which are user-created programs that can perform specific, often harmful, actions if they are accidentally downloaded. Viruses can be used to gain information for identity theft, allow hackers to send spam using a victim's email contacts, or perform needlessly destructive acts, such as erasing a hard drive. Anti-virus programs, which can be purchased or downloaded free online, help find and eliminate viruses before they can do any harm. Anti-virus programs tend to run continuously, so that all data is routinely checked for potential threats.

One of the most important principles of both Internet and computer security is intelligent user behavior. In addition to installing strong firewalls and anti-virus programs, it is important to use caution when using the Internet, just as when entering credit card information. Users should never download email attachments from strangers, and keep all accounts and sensitive computer data protected with strong, complex passwords. In addition, setting anti-virus programs to scan regularly and update automatically can help keep existing protection precautions up-to-date and functional [37].

## **2. Read the text again and say whether these statements are true or false.**

1. The Internet is both the source of major computer security threats and tools for protection against them.
2. Encryption programs can protect personal data from being viewed by unauthorized users.
3. Firewalls can either be software or hardware.
4. Firewalls allow malicious traffic to pass through the system without permission.
5. Most firewalls are external applications that have to be purchased.
6. Viruses perform destructive acts, such as erasing a hard drive.
7. Anti-virus programs act as barriers for incoming traffic and filter data packets from unsecured sources.
8. Keeping all accounts protected with weak passwords will help prevent identity theft.
9. Teaching users to delete suspicious email attachments and storing all sensitive computer data protected with complex passwords is vital for their Internet security.

**3. Do you agree with the proposed security measures that every small business must take? How can these precautions improve online business security?**



**4. Match the words that go together in the text.**

- |                         |                                    |
|-------------------------|------------------------------------|
| 1. identity             | a. protected with strong passwords |
| 2. to provide           | b. information                     |
| 3. to keep all accounts | c. viruses                         |
| 4. to install           | d. theft                           |
| 5. erasing              | e. destructive acts                |
| 6. to gain              | f. caution                         |
| 7. to perform           | g. adequate protection             |
| 8. to eliminate         | h. harm                            |
| 9. built-in             | i. potential threats               |
| 10. to do               | j. a hard drive                    |
| 11. to check for        | k. firewall                        |
| 12. to use              | l. a strong anti-virus program     |

**5. Continue the sentences using the expressions from Exercise 4:**

- As a precautionary measure, he .....
- Anti-virus software can prevent hackers from .....
- To keep your sensitive data protected you should .....

**6. Develop the ideas about Internet and computer security with the help of the Mind Map. Follow the [LINK](#).**

**7. Make a short summary of the text.**

### THE PARTICIPLE

Consult grammar rule using the [LINK](#).

**1. Study the following word combinations with the Participle I Simple and Participle II. Translate them into Russian.**

**a) Participle I Simple**

Cybercriminals collecting financial data, Trojan programs stealing access codes, virus protection software being installed now, hackers creating malicious software programs, cryptographic protocols encrypting critical data, the computers being scanned by the security software right now, banking websites having extra layers of encryption, cybercriminals spying on you.

**b) Participle II**

A downloaded file, an infected website, inadequately-protected computers and servers, malicious code spread via the network, antivirus software built by world-class security firms, viruses attached to an executable file, malicious websites designed to scam individuals, a type of malware disguised as legitimate software, files sent as email attachments.

**2. Complete the sentences using the proper form of the Participle I Simple and Participle II.**

1. Cybercrime includes single actors or groups \_\_\_\_ (target) systems for financial gain or to cause disruption.
2. Security programs can detect and remove malicious code \_\_\_\_ (hide) in Master Boot Record and \_\_\_\_ (design) to encrypt or wipe data from computer's hard drive.
3. Kaspersky Lab \_\_\_\_ (recognize) for its world-class, anti-malware products can protect a range of computers and devices against cybercrime.
4. You also should be alert for spam and phishing emails \_\_\_\_ (attempt) to steal your identity.
5. The Internet banking security software \_\_\_\_ (download) now, will keep your online banking transactions secure.
6. Only anti-malware solution \_\_\_\_ (receive) regular updates will protect your device against the latest threats.
7. It is critical to have a comprehensive Internet security suite \_\_\_\_ (install) on your system.

**3. Choose the correct form of the Participle.**

1. *Activated / activating* the infected host file or program you make the virus active *enabling / having enabled* it to run and replicate on your system.

2. ***Encrypted / having encrypted*** all the user's information the cybercriminals demanded payment to return access to the user.
3. ***Having found / finding*** its way onto your system the worm made multiple copies of itself and damaged the files.
4. ***Once activated / activating*** Trojans can allow cybercriminals to steal your sensitive data.
5. ***Applying / applied*** a specially developed Trojan cybercriminals often attack a single targeted company.
6. ***Having collected / collecting*** information on a password for the user account a Trojan program sent the data to the criminal.
7. When ***identified / identifying***, new threats are analyzed by cyber-security professionals to evolve new defenses.
8. ***Having been clicked / having clicked*** a fake link in the email, the user went to the criminals' server.

**4. Make one sentence from two using an -ing clause.**

***Example:***

*The cybercriminal attracts the user's attention to the infected file. Then he gets the user to click on it.*

*Attracting the user's attention to the infected file, the cybercriminal gets the user to click on it.*

1. A small Trojan virus enters the user's computer via a vulnerability. It then downloads and installs larger Trojan viruses from the Internet.
2. Cybercriminals attacked a bank's server. After they illegally transferred funds from customers' bank accounts.
3. Fraudsters also target online banking users with fake e-mails. They request the users to enter credit card details.
4. A backdoor Trojan was employed by hackers. Then it gave cybercriminals remote control over the infected computer.
5. Bank websites have extra layers of encryption these days. They protect all sensitive customer data.
6. Worms don't require a host program in order for them to run. They spread via the network or Internet connection making multiple copies.

**5. Complete the sentences using the proper form of the Participle.**

1. Unreal is a pure C++ engine \_\_\_\_\_ (design) for high performance.
2. It's not rare to see people \_\_\_\_\_ (spend) tens or hundreds of hours on their favorite, well-designed games.
3. The system scans the environment and makes the decisions \_\_\_\_\_ (base) on what it 'sees'.
4. \_\_\_\_\_ (not become) suspicious, the company's employee entered their corporate system access password.

5. When \_\_\_\_ (pack) and \_\_\_\_ (encrypt) Trojans may evade antivirus software that's running on the victim's computer.
6. Kaspersky's research shows that more than 75% of malicious software \_\_\_\_ (create) by cybercriminals aim to infect large numbers of computers.
7. A protection update \_\_\_\_ (develop) now, will be ready for distribution soon.
8. Cybercriminals are also creating and distributing Trojan spy programs \_\_\_\_ (steal) 'online currency' from a user's e-gold or WebMoney account.
9. \_\_\_\_ (be so deeply embedded) within the system, a computer virus couldn't be detected on the user's computer for a long time.
10. After \_\_\_\_ (click) on a malicious link, the user received a scary pop-up \_\_\_\_ (claim) infection.
11. Successfully \_\_\_\_ (deploy) malicious scripts can cause any number of security issues to enterprises \_\_\_\_ (operate) on cloud servers.
12. \_\_\_\_ (steal) and \_\_\_\_ (compromise) account login credentials are a common threat to cloud computing.

## SPEAKING 1

---

### Internet safety rules

We are exposed to cyber dangers every day, so using the ideas and prompts below work out some Internet safety rules. You can use the Imperative or modal verbs: **can, should, must, have to**.

#### Example:

*Use secure websites while surfing the web.*

*You should use secure websites while surfing the web.*

	Nouns / Phrases	Verbs	Adjectives
1	websites	use	secure
2	password (name, common dictionary words, number, lower and upper case characters)	create, choose, (not) share, change	strong (long, different)
3	information: address, phone number, likes and dislikes, daily routine	(not) give to strangers, (not) share	personal
4	uploading photos and videos of yourself	be	careful, dangerous
5	you / people	(not) be	rude
6	friends	(not) make	online
7	what you download, attachment from a stranger	be, (not) open,	careful
8	information on the Internet, everything	be, (not) believe	false

### *Internship & Gaining Experience*

#### ***Start-up***

What is the most important information in your CV? Your school or university? Your grades? The answer is: none of these. 80% of employers first look at the experience and skills you've acquired on an internship. Work experience is now an essential part of a university education.

*An internship or a work placement* is a period of time that a student spends inside a company in order to get on-the-job work experience. Internships can be done after obtaining a degree or part-way through a course of study.



- Have you ever done an internship? Where? What did you do?
- If not, would you like to do an internship? If so, where and what type of work? If not, why not?

#### **1. Agree or disagree with the following statements? Explain why.**

1. An internship is an essential part of a university education.
2. It's normal to work without pay when you are an intern.
3. It doesn't matter where you do internship. Employers are interested in any work experience even if it doesn't deal with your university degree.

#### **2. Listen to Lena and Jamie talking about their internships. Are they happy with them? LENA, JAMIE**

#### **3. Listen again. Answer the questions about Lena and Jamie's internships.**

1. Where are the internships?
2. What type of business do they work in?
3. Where do they live?
4. Are they paid for their work?

#### **4. If you have done the internship speak about it using the questions about Lena and Jamie's internships above as the guidelines.**

## WRITING

---

### Placement Report

#### Start-up

1. Have you had an internship?
2. Did you have to write a placement report after having done your internship (placement)?
3. What sections did it contain? What style was it written in?



Henry, a marketing student, has just finished his placement at Cambro Corp. an engineering company. He has to write a report on his experience.

**1. Read headings to the sections of a placement report. What information do you expect to find in each of the heading?**

- a. Observations about the company
- b. Appendix
- c. Introduction
- d. Professional achievements and conclusions
- e. Experience during work placement

**2. Read the extracts from different sections of Henry's report below. Choose the correct heading (a-e) for each section (1-5).**

1 \_\_\_\_\_

... a five-month placement with Cambro Corp. under the supervision of Mr. Benjamin Thomson, Marketing Manager. The objective of the internship was to design, conduct and analyze the results of a market study for a new electronic gearbox.

2 \_\_\_\_\_

... response rate to the first mailshot was very poor. When customers were contacted by telephone, it became clear that many of them had not understood the first question. The order of the items was therefore modified and response rate increased by 200%...

3 \_\_\_\_\_

... a long history of sponsoring local sports and cultural events. Cambro's reputation is one of its greatest strengths. To obtain a similar result through media campaigns would cost millions. This aspect of the company's marketing and PR policy was most impressive...

4 \_\_\_\_\_

... communication skills in particular. Developing and performing a market study in less than six months was a major challenge. Fortunately, I was able to apply the

knowledge I had acquired in marketing in year two of my degree, and the results of my study were extremely well received. In future, I think it would be very helpful if ...

5 \_\_\_\_\_

... including the following documents:

- a. Daily journal
- b. Thank you letter to Mr. Thomson
- c. Evaluation letter from Mr. Thomson
- d. Resume
- e. Cambro brochure and sales literature

**3. Decide which section of the report these topics should be in. Match the section (1-5) with the topics (a-h). Explain the reason for your choice:**

- |  |   |
|--|---|
| 1. Introduction                              | a. Analysis of success and failures                   |
| 2. Experience during work placement          | b. Objectives of the internship                       |
| 3. Observations about the company            | c. Details of your responsibilities                   |
| 4. Professional achievements and conclusions | d. Analysis of what you learned                       |
| 5. Appendix                                  | e. Evaluation of the company as a potential employer  |
|  | f. Suggestions for the future                         |
|  | g. Description of the company and how it is organized |
|  | h. Observation on the company's culture and policies  |

**4. Match Henry's informal diary entries (1-9) with the formal phrases used to talk about the same things in the report extracts in Exercise 2.**

1. my boss is a guy called Ben.
2. Today I called lots of customers.
3. I finally understood what the problem was!
4. So, I changed the questions around.
5. This is worth a fortune! Much better than paying for advertising.
6. ... was cool!
7. It was really difficult and exhausting.
8. Thank goodness I'd learnt how to do a market survey!
9. Ben was really happy with what I did.

**5. Work in small groups to summarize some key differences between the informal language of the phrases in Exercise 4 and the formal language of the corresponding phrases in the report in Exercise 2.**

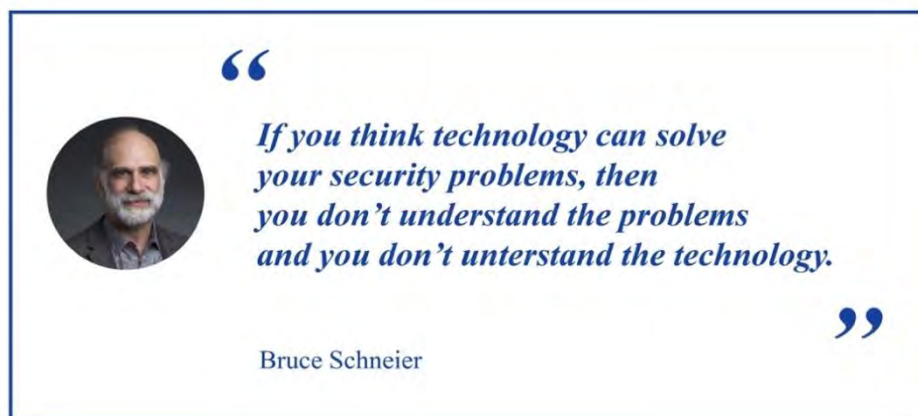


## LISTENING

### *The Internet: Cybersecurity & Crime*

#### **SETTING THE CONTEXT**

1. Why is cybersecurity important? Try to name as many reasons as possible.
2. Did you know that there is a hacker attack every 39 seconds? Does this information make you feel scared?
3. Read the following brainy quote by Bruce Schneier, an American cryptographer. How do you understand it? Express your views on it.



#### **ACTIVATING VOCABULARY**

##### **1. Match the English words (phrases) with their Russian equivalents.**

a. to take over	a) влиять, воздействовать
b. vulnerability	b) учетные данные для входа
c. to replicate	c) энергосеть
d. to impact	d) обманывать
e. to lure	e) копировать, воспроизводить
f. to disguise	f) заслуживающий доверия; надёжный
g. to overwhelm	g) угонять
h. trustworthy	h) маскировать, исказить; представлять в ложном свете
i. login credentials	i) уязвимость
j. to hijack	j) завлекать
k. energy grid	k) переполнять; забрасывать
l. to trick	l) получить контроль

##### **2. Match the words having a similar meaning.**

1. request	a. to use
2. deception	b. to deceive

3. to exploit	c. hacker
4. grid	d. query
5. to take over	e. to influence
6. to overwhelm	f. deceit
7. to trick	g. network
8. attacker	h. to gain control
9. to impact	i. to overload

**Before proceeding to LISTENING COMPREHENSION section, please follow the [LINK](#) to watch the video.**

### ***LISTENING COMPREHENSION***

**1. Choose the best answer to these questions. Sometimes more than one correct option is possible.**

1. Cybersecurity investigations are of a great importance because \_\_\_\_\_.
  - a. cyber army may replace a regular army
  - b. cybercrime causes huge financial problems
  - c. cybercriminals are elusive
  - d. cybercrime threatens national security
2. What has happened to many unmanned aerial drones in the last few years? They have been \_\_\_\_\_.
  - a. stolen
  - b. hacked
  - c. hijacked
  - d. compromised
3. Cybercrimes are committed by \_\_\_\_\_.
  - a. installing an executable program
  - b. exploiting vulnerabilities in hardware and software
  - c. sending many requests
  - d. taking advantage of mistakes made by people using the software
4. What are the people committing cybercrimes like?
  - a. They don't fit a single profile.
  - b. They are mostly teenagers competing for bragging rights.
  - c. They are organized online crime gangs.
5. What are listed as possible actions of a well-armed cyber army?
  - a. Shutting down national energy grids.
  - b. Shutting down national surveillance systems.
  - c. Shutting down transportation systems.
  - d. Shutting down national water supplies.
6. What does Google Security Princess do?
  - a. She develops new Goggle products.
  - b. She discloses vulnerabilities in products made by Google competitors.
  - c. She tries to make Google's software as secure as possible.

- d. She works to make the Internet safer.
7. How can an attacker infect someone's computer?
    - a. They might lure a victim into installing a malicious program.
    - b. If the software on your computer has a vulnerability, malware can install itself without even needing explicit permission.
    - c. All above.
  8. What is a botnet?
    - a. A computer program designed to simulate a conversation with human users.
    - b. A network of computers worldwide taken over by hackers to attack and take down websites.
    - c. A network of private computers for sharing sensitive personal information.
  9. Distributed Denial of Service (DDoS) means:
    - a. flooding the targeted machine or resource with superfluous requests in an attempt to overload systems.
    - b. an attack accomplished through a network of remotely controlled, hacked computers or bots.
    - c. All above.
  10. What is called a phishing scam?
    - a. Tricking a user into buying and downloading unnecessary and potentially dangerous software, such as fake antivirus protection.
    - b. Tracking the keystrokes to intercept passwords and other sensitive information typed in through the keyboard.
    - c. Sending emails that mimic reputable entities like banks, online resources and credit card companies to trick the receivers into sharing their financial and personal information.
  11. Ninety percent of the time the system gets hacked \_\_\_\_\_.
    - a. because of a security bug
    - b. because of a simple mistake made by a human
    - c. because of the presence of some backdoor
  12. Your actions on the Internet impact \_\_\_\_\_.
    - a. the security of your data and computer
    - b. the security of your workplace
    - c. the security of your home
    - d. All above

**2. Match the words that go together in the video.**

1. unmanned	a. program
2. unintentional	b. vulnerabilities
3. to commit	c. aerial drones
4. an executable	d. updates
5. distributed denial of	e. a website with too many requests
6. phishing	f. the security of your data
7. to be disguised as security	g. crimes

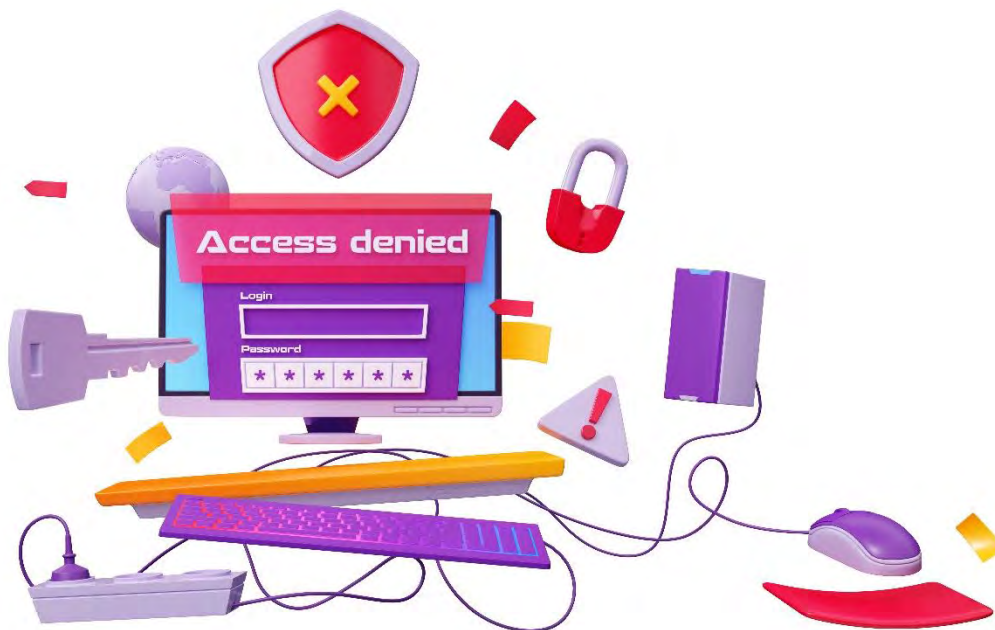
8. to look like a trustworthy	h. sharing personal information
9. to overwhelm	i. scam
10. to trick people into	j. service
11. to exploit	k. email
12. to impact	l. decisions

**3. Discuss the following questions.**

1. What cybercrimes are mentioned in the video that have caused huge problems for society in the last few years?
2. What kinds of army do many largest countries have?
3. What Internet threats are discussed in the video?
4. Does a computer virus look like a biological virus? Compare the work of both kinds of viruses.
5. How does a virus get on your computer?
6. How does a distributed denial of service work?
7. Do you think you would distinguish a phishing email from a real one? What does a phishing email look like?
8. What are the consequences of having been tricked into giving your password away?
9. Does a computer system mostly get hacked because of security design?

**4. Make a plan that outlines the main points of the video.**

**5. Summarize the main content of the video in 10-12 sentences using the plan.**



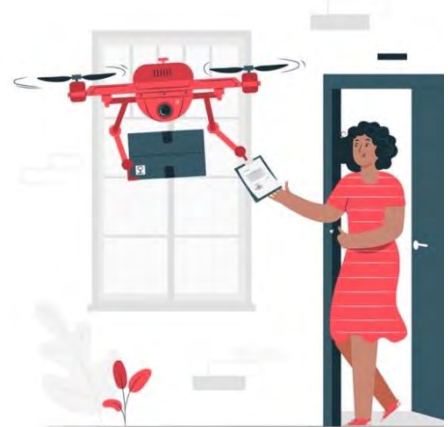
## UNIT 12 ROBOTICS

### START-UP

---

#### 1. Answer the questions.

1. What are the main areas of robot application? Why are they so widely used?
2. Are there any areas that can never be replaced by robots?



### VOCABULARY

---

#### 1. Match the words with their definitions.

- |                    |  |
|--------------------|--|
| 1) to replicate    | a) a step or stage in progress toward an aim; an important positive development                          |
| 2) law enforcement | b) remotely controlled   |
| 3) drone           | c) a fact or condition connected with what is happening or happened                                      |
| 4) circumstance    | d) a person, shop, or business that sells to the public  |
| 5) teleoperated    | e) the police or other officials who stop crime or catch criminals                                       |
| 6) warehouse       | f) to make or do something in exactly the same way, to copy or repeat smth.                              |
| 7) co-bot          | g) something considered absolutely necessary or essential to own   |
| 8) retailer        | h) a routine task, especially a household one  |
| 9) stride          | i) a large building used for storing goods   |
| 10) assembly line  | j) an aircraft that doesn't have a pilot but is controlled by someone on the ground                      |
| 11) chore          | k) a collaborative robot that is capable of learning multiple tasks so that it can assist a human worker |
| 12) must-have      | l) a line of machines and workers in a factory that a product moves along while it is being produced     |

#### 2. Match the synonyms given below.

- |                 |         |
|-----------------|---------|
| 1) intersection | a) harm |
|-----------------|---------|

- |                  |               |
|------------------|---------------|
| 2) to substitute | b) to put in  |
| 3) harsh         | c) control    |
| 4) to insert     | d) to replace |
| 5) supervision   | e) wonder     |
| 6) to assist     | f) to mimic   |
| 7) to fix        | g) severe     |
| 8) enormous      | h) to help    |
| 9) marvel        | i) to repair  |
| 10) injury       | j) crossing   |
| 11) to replicate | k) domain     |
| 12) scope        | l) great      |

**3. Complete the sentences with the words from the box.**

**substitute, circumstances, assembly line, insert, strides, human supervision, electric current, must-have, warehouses**

1. Robots have already made enormous \_\_\_\_ in healthcare.
2. The mobile phone is now a \_\_\_\_ for children.
3. Goods were continuously delivered to the company's \_\_\_\_, from where they were selected, repacked, and dispatched to retail stores.
4. To speed up production, the manufacturer set up an \_\_\_\_ of autonomous robots designed to carry out tasks without \_\_\_\_.
5. Obviously, we can't deal with the problem until we know all the \_\_\_\_.
6. Please \_\_\_\_ your card into the slot to make a payment.
7. Switch off the \_\_\_\_ before changing the bulb.
8. Of course, no book or course of study can \_\_\_\_ for experience.

**4. Complete the table with the appropriate derivatives. Pay attention to the meaning of the words.**

Verb	Noun	Adjective / Participle
wonder		
		consistent
	enforcement	
		assembled
deepen		
	supervision	
		entertaining
marvel		
	relation	
		maximum

**5. Complete the sentences with the appropriate derivative of the word given in capitals.**

1. Have you got any statistics that would \_\_\_\_\_ your argument?  
(ENFORCEMENT)
2. We were impressed by the \_\_\_\_\_ of her knowledge. (DEEPEN)
3. The fireworks show last night was simply \_\_\_\_\_. (MARVEL)
4. The furniture is delivered in pieces and you have to \_\_\_\_\_ it yourself.  
(ASSEMBLED)
5. The \_\_\_\_\_ database contained data that was connected to both of the businesses.  
(RELATION)
6. Customers expect \_\_\_\_\_ in the quality of service they receive. (CONSISTENT)
7. He worked for the company in sales before moving into a \_\_\_\_\_ position.  
(SUPERVISION)
8. The company's main function is to \_\_\_\_\_ profit. (MAXIMUM)

**READING** \_\_\_\_\_

**1. Read the text and answer the questions.**

1. What is robotics?
2. What were early robots tasked with?
3. Do today's robots assist law enforcement or explore the Earth's harshest conditions?
4. What are the basic characteristics of robots?
5. What example of a pre-programmed robot is given in the text?
6. What kind of robot performs human-like activities?
7. How do autonomous robots operate?
8. What tasks does the Roomba robot carry out?
9. Where do teleoperated robots work?
10. Give examples of teleoperated robots.
11. What companies require shipping, handling and quality control robots?
12. What tasks are robots performing in warehouses right now?
13. How do robots assist in healthcare?

**Robots and Robotics**

Robotics is the intersection of science, engineering and technology that produces machines, called robots, that substitute for (or replicate) human actions.

As technology progresses, so too does the scope of what is considered robotics. Earlier, 90% of all robots could be found assembling cars in automotive factories. These robots consist mainly of mechanical arms tasked with welding or screwing on certain parts of a car. Today, we're seeing an evolved and expanded definition of robotics that includes the development, creation and use of robots that explore the Earth's harshest conditions, robots that assist law-enforcement and every aspect of healthcare.

While the overall world of robotics is expanding, a robot has some consistent characteristics:

1. Robots all consist of some sort of mechanical construction. The mechanical aspect of a robot helps it complete tasks in the environment for which it's designed.
2. Robots need electrical components that control and power the machinery. Essentially, an electric current (a battery, for example) is needed to power a large majority of robots.
3. Robots contain at least some level of computer programming. Without a set of code telling it what to do, a robot would just be another piece of simple machinery. Inserting a program into a robot gives it the ability to know when and how to carry out a task.

The robotics industry is still relatively young, but has already made amazing strides. From the deepest depths of our oceans to the highest heights of outer space, robots can be found performing tasks that humans couldn't dream of achieving.

Mechanical bots come in all shapes and sizes to efficiently carry out the task for which they are designed.

Pre-programmed robots operate in a controlled environment where they do simple, monotonous tasks. An example of a pre-programmed robot would be a mechanical arm on an automotive assembly line. The arm serves one function – to weld a door on, to insert a certain part into the engine, etc. – and its job is to perform that task longer, faster and more efficiently than a human.

Humanoid robots are robots that look like and / or mimic human behavior. These robots usually perform human-like activities (like running, jumping and carrying objects), and are sometimes designed to look like us, even having human faces and expressions.

Autonomous robots operate independently of human operators. These robots are usually designed to carry out tasks in open environments that do not require human supervision. An example of an autonomous robot would be the Roomba vacuum cleaner, which uses sensors to roam throughout a home freely.

Teleoperated robots are mechanical bots controlled by humans. These robots usually work in extreme geographical conditions, weather, circumstances, etc. Examples of teleoperated robots are the human-controlled submarines used to fix underwater pipe leaks during the BP oil spill or drones used to detect landmines on a battlefield.

The manufacturing industry is probably the oldest and most well-known user of robots. These robots and co-bots (bots that work alongside humans) work to efficiently test and assemble products, like cars and industrial equipment.

Shipping, handling and quality control robots are becoming a must-have for most retailers and logistics companies. Because we now expect our packages arriving at blazing speeds, logistics companies employ robots in warehouses, and even on the road, to help maximize time efficiency. Right now, there are robots taking your items off the shelves, transporting them across the warehouse floor and packaging them.

Robots can be seen all over our homes, helping with chores, reminding us of our schedules and even entertaining kids. Additionally, robots have now evolved to do everything from autonomously mowing grass to cleaning pools.

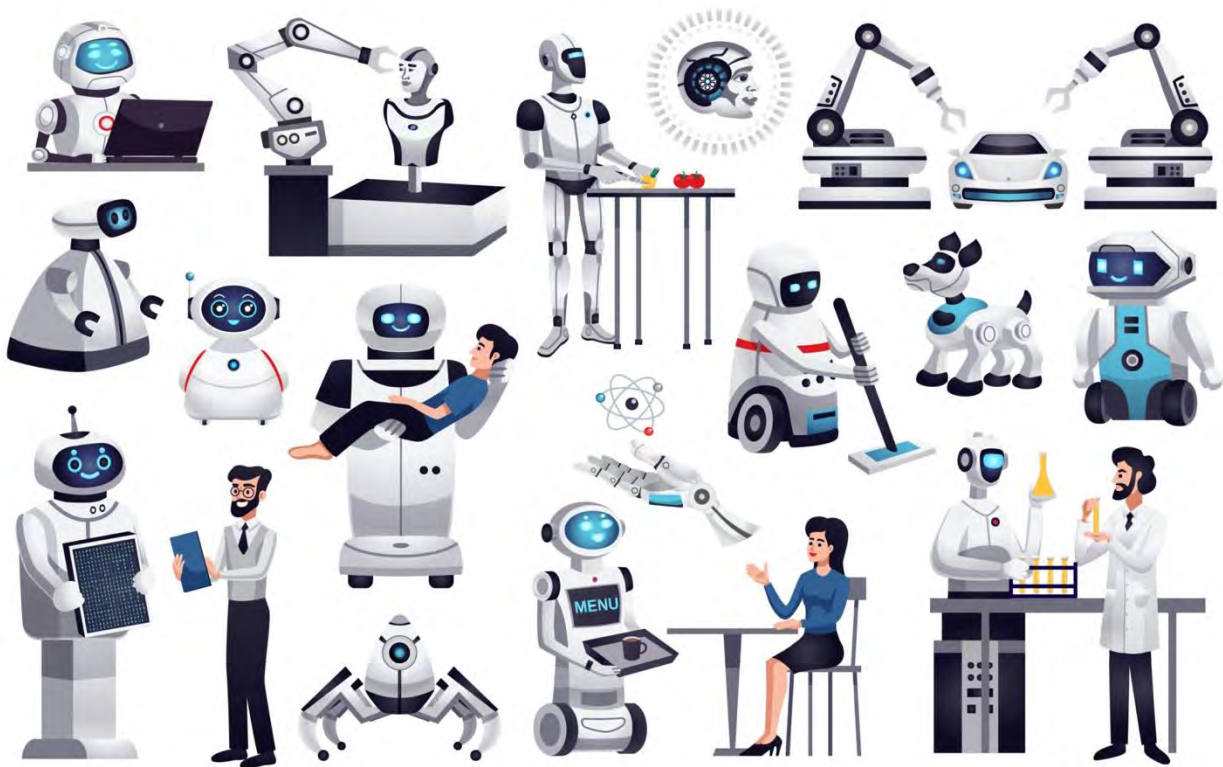


Robots have made enormous strides in the healthcare industry. These mechanical marvels have use in just about every aspect of healthcare, from robot-assisted surgeries to bots that help humans recover from injury in physical therapy [29].

**2. Read the text again and say whether these statements are true or false.**

1. Robots replicate human actions.
2. Inserting a battery into a robot gives it the ability to know when and how to carry out a task.
3. Today robotics industry is leaving behind in progress.
4. Humans couldn't dream of achieving the deepest depths of our oceans without robots.
5. A mechanical arm performs the tasks slower and less efficiently than human workers.
6. Teleoperated robots don't require human supervision.
7. Logistics companies employ robots in extreme geographical conditions, weather, and circumstances.
8. Robots can be found in our homes, helping with chores and entertaining children.
9. Being mechanical marvels robots have made extremely complicated surgery possible.

**3. Name the areas of robot application presented in the picture below.**



**4. Match the words that go together in the text.**

- |                     |                        |
|---------------------|------------------------|
| 1. to substitute    | a. recover from injury |
| 2. to power         | b. human behavior      |
| 3. automotive       | c. human supervision   |
| 4. electric         | d. into the engine     |
| 5. to mimic         | e. for human actions   |
| 6. to insert a part | f. in warehouses       |
| 7. to require       | g. a must-have         |
| 8. to employ robots | h. machinery           |
| 9. to become        | i. assembly line       |
| 10. help humans     | j. current             |

**5. Make two sentences with any word combinations from Exercise 4.**

**6. Develop the ideas about Robots and robotics with the help of the Mind Map. Follow the [LINK](#).**

**7. Make a short summary of the text.**

**LANGUAGE FOCUS**

---

**THE GERUND**

**Consult grammar rule using the [LINK](#).**

**1. Rephrase each sentence so that it begins with the Gerund as a subject.**

**Example:**

*It's important to do your own research.*

*Doing your own research is important.*

1. It's getting easier to equip robots with powerful sensing and computing systems.
2. It's necessary for industrial robots to detect objects or people nearby.
3. The current approach is to teach robots.
4. It took lots of experiments to confirm this hypothesis.
5. It's rather challenging to give a robot biped locomotion.
6. It's not hard to write code in Python.
7. It's essential to get anti-virus software that is suited to your computer type.

**2. Link these sentences using prepositions (in, without, by, instead of, before) + Gerund.**

**Example:**

*Scientists conduct undersea research. They apply newly developed soft robots.*

Scientists conduct undersea research by applying newly developed soft robots.

1. In Japan, engineers have taught a robot to dance. They demonstrate the movements themselves.
2. We were able to translate the article into English. We didn't use a dictionary.
3. Military robots are designed to assist troops. They carry heavy gear.
4. People don't perform certain hard and dangerous manufacturing tasks themselves. They use robots.
5. First, check reputable forums or review sites. Then download a free app or a browser plug-in.
6. Some robotic exoskeletons have industrial or military applications. They give the wearer added mobility and endurance to carry heavy loads.
7. Telemedicine robots allow doctors to check on patients at another hospital. Doctors don't need to go there.

### 3. Complete the sentences using the words from the box.

**looking, capable, prevent, interested, insist, concentrate, responsible**

1. Are you \_\_\_\_ in taking a robotics course, and become a roboticist?
2. Isaac Asimov's Three Laws of Robotics were designed to \_\_\_\_ a robot from harming humans.
3. A robot is an autonomous machine \_\_\_\_ of sensing its environment, carrying out computations to make decisions, and performing actions in real world.
4. Big industrial companies are \_\_\_\_ forward to deploying cost-effective, multipurpose and collaborative machines.
5. Who will be \_\_\_\_ for carrying out this task?
6. Just try to \_\_\_\_ on improving the learning algorithm of a robot.
7. They \_\_\_\_ on integrating the collaborative robots into the manufacturing process as soon as possible.

### Verbs followed by '-ing' or by 'to' + infinitive (Part 1)

A verb can be followed by another verb. The second one usually needs to change into the -ing form or the to + infinitive form. Which form you need depends on what the first verb is.

#### Verbs followed by the -ing form

<i>enjoy</i>	<i>can't help</i>	<i>feel</i>
<i>admit</i>	<i>consider</i>	<i>finish</i>
<i>mind</i>	<i>like</i>	<i>miss</i>
<i>avoid</i>	<i>dislike</i>	<i>practise</i>
	<i>give up</i>	<i>suggest</i>

When the verbs in this group are followed by another verb, it must be in the –ing form.

*I enjoy travelling.*

*I don't mind waiting if you're busy.*

*Like* and *love* can be followed by the –ing form and the to + infinitive form. They are both correct.

### Verbs followed by to + infinitive form

<i>want</i>	<i>agree</i>	<i>expect</i>
<i>learn</i>	<i>ask</i>	<i>hope</i>
<i>offer</i>	<i>choose</i>	<i>plan</i>
<i>afford</i>	<i>decide</i>	<i>prepare</i>
<i>promise</i>	<i>refuse</i>	<i>would like</i>

When the verbs in this group are followed by another verb, it must be in the to + infinitive form.

*I want to speak to the manager.*

*She's learning to play the piano.*

### 4. Choose the correct verb form to complete the sentences.

- I enjoy \_\_\_\_\_ online games.
  - playing
  - to play
- My brother promised \_\_\_\_\_ us to the airport.
  - taking
  - to take
- If you feel ill, avoid \_\_\_\_\_ any hard exercise.
  - doing
  - to do
- I would like you \_\_\_\_\_ a presentation.
  - making
  - to make
- I suggest \_\_\_\_\_ the museums while you're in London.
  - visiting
  - to visit
- Do you mind \_\_\_\_\_ for me a few minutes?
  - waiting
  - to wait
- We can't afford \_\_\_\_\_ a new computer.
  - buying
  - to buy

8. I dislike \_\_\_\_\_ to work at weekends.
  - a. having
  - b. to have
9. I'm learning \_\_\_\_\_ at the moment.
  - a. driving
  - b. to drive
10. I finished \_\_\_\_\_ two years ago.
  - a. studying
  - b. to study
11. We hope \_\_\_\_\_ you again soon.
  - a. seeing
  - b. to see
12. Next summer, we're planning \_\_\_\_\_ our relatives.
  - a. visiting
  - b. to visit
13. Now I've changed job, I miss \_\_\_\_\_ my old colleagues.
  - a. seeing
  - b. to see
14. I'd like \_\_\_\_\_ to the conference.
  - a. coming
  - b. to come
15. They chose \_\_\_\_\_ about the collaborative robots for their project.
  - a. writing
  - b. to write

### Verbs followed by '-ing' or by 'to' + infinitive (Part 2)

Some verbs have a different meaning depending on whether they are followed by an -ing form or to + infinitive.

#### 1. Stop

**Stop + -ing** means the action is not happening any more.

*I've stopped buying the newspaper because now I read the news online.*

**Stop + to + infinitive** means that someone or something stops an activity so that they can do something else.

*The teacher stopped the video to ask the students some questions.*

#### 2. Try

**Try + -ing** means that you are trying something as an experiment, especially as a possible solution to a problem, to see if it works or not.

*Have you tried turning the computer off and on again?*

**Try + to + infinitive** means that something is difficult but you are making an effort to do it.

*I'm trying to learn Japanese but it's very difficult.*

## Remember / Forget / Regret

**Remember + -ing, forget + -ing** and **regret + -ing** refer to having (or not having) a memory of something in the past.

*I remember watching this film before.*

*I'll never forget meeting you for the first time in this café.*

**Remember + to + infinitive, forget + to + infinitive** and **regret + to + infinitive** refer to recalling (or not recalling) that there is something we need to do before we do it.

*Please remember to buy some milk on the way home.*

*He forgot to lock the door when he went out.*

### 5. Choose the correct verb form to complete the sentences.

1. They stopped at the petrol station \_\_\_\_\_ the car up.
  - a. to fill
  - b. filling
2. I'd forgotten \_\_\_\_\_ that document, but then an HR manager showed it to me.
  - a. to sign
  - b. signing
3. Please remember \_\_\_\_\_ your appointment if you are unable to attend.
  - a. to cancel
  - b. cancelling
4. – There's no W-Fi. – I forgot \_\_\_\_\_ the settings.
  - a. to switch
  - b. switching
5. I know it's difficult but try \_\_\_\_\_ about it too much.
  - a. not to think
  - b. not thinking
6. You've definitely got the keys. I remember \_\_\_\_\_ them to you in the office this morning.
  - a. to give
  - b. giving
7. I always forget \_\_\_\_\_ my alarm for Monday morning.
  - a. to set
  - b. setting
8. Jane tried \_\_\_\_\_ the whole book but it was long and complicated.
  - a. to read
  - b. reading
9. You'll be OK. I remember \_\_\_\_\_ really nervous on my first day too!
  - a. to be
  - b. being
10. Try \_\_\_\_\_ the video with subtitles. This might help you understand better.
  - a. to watch
  - b. watching
11. Remember \_\_\_\_\_ us know when you arrive.

- a. to let
  - b. letting
12. Pavel's stopped \_\_\_\_\_ French classes and changed to German.
- a. to take
  - b. taking

**6. Put the verbs in brackets into the Infinitive or the Gerund form. These verbs can be followed by either the Gerund or the Infinitive with a change in meaning.**

1. A collaborative robot automatically stops \_\_\_\_\_ (work) when anybody gets too close to the machinery.
2. I remember \_\_\_\_\_ (build) and \_\_\_\_\_ (program) my first real robot with Lego Mindstorm.
3. Don't forget \_\_\_\_\_ (join) us for coffee break!
4. A self-driving car detected a pedestrian and stopped \_\_\_\_\_ (let) him cross the road.
5. Remember \_\_\_\_\_ (switch off) all the appliances before leaving.
6. We recommend \_\_\_\_\_ (read) independent reviews and \_\_\_\_\_ (watch) videos to see which antivirus you might like \_\_\_\_\_ (use).
7. When you combine sensors, computers, actuators, and user interfaces into a robot and try \_\_\_\_\_ (operate) it in the real world, things still don't work perfectly.
8. The company regrets \_\_\_\_\_ (inform) employees that the Minsk office will close next month.
9. – The robot vacuum isn't working. I wonder what's wrong with it? – Have you tried \_\_\_\_\_ (recharge) the battery?
10. I forgot \_\_\_\_\_ (type) an extra set of parentheses, as a result the code in Python didn't work.
11. Now they regret \_\_\_\_\_ (invest) into this costly equipment.
12. I would recommend you \_\_\_\_\_ (integrate) 3D sensing technology with your robot.
13. – Have we already discussed this topic? I forget \_\_\_\_\_ (read) about it.

**7. Put the verbs in brackets into the Infinitive or the Gerund form.**

1. Would you like \_\_\_\_\_ (participate) in 3D technology conference?
2. Do you like \_\_\_\_\_ (read) e-books?
3. We decided \_\_\_\_\_ (implement) collaborative robots for pick and place operations.
4. I prefer \_\_\_\_\_ (learn) online to \_\_\_\_\_ (learn) in the classroom.
5. – Shall we leave now? – I would prefer \_\_\_\_\_ (wait) a little bit.
6. I'm learning \_\_\_\_\_ (speak) German.
7. – Do you mind \_\_\_\_\_ (work) extra two hours?
8. I enjoy \_\_\_\_\_ (drive) a car.
9. Julia wants \_\_\_\_\_ (practice) more English.
10. This antivirus needs \_\_\_\_\_ (update).
11. They decided \_\_\_\_\_ (adapt) their software for the maximum number of systems before release.
12. Ivan has suggested \_\_\_\_\_ (develop) a cross-platform application.

13. Have you finished \_\_\_\_\_ (write) up a defect report for a developer to look at?  
14. We are planning \_\_\_\_\_ (start) a new project next week.

**8. Translate the following sentences into Russian.**

## **SPEAKING 1**

---

### *Robot applications*

Robots are vastly used in all spheres of our lives. Speak about why and how robots are applied in the workplace, in the army, and medicine. Use the ideas and prompts below.

#### **Robots in the workplace**

- offer safety
- heavy machinery / hot temperatures and sharp objects → injure the human being
- do dangerous tasks
- remove some of the risks
- not depend on the work of other people
- not take vacation time
- not take breaks
- work all the time → speed up the production
- more reliable than ...
- perform tasks that people don't enjoy: menial work, repetitive or dangerous jobs

#### **Robots in the army, search and rescue missions**

- to combat the missions (e.g. MAARS Robots – Military Advanced Armed Robots)
- be equipped with the GPS monitor
- be programmed to look at the fire and no-fire zones
- carry heavy gear
- to bring out the human bodies
- be used in places where the human can't reach: where the fire or natural disaster take place
- rescue people / inaccessible places

#### **Robots in medicine**

- specialize in human treatment (surgical and rehabilitation robots)
- assist in the care / older physically / mentally challenged people
- assist surgeons / perform operations
- sterilizing rooms
- delivering medical supplies, equipment
- give a prescription
- be programmed to pick the dose (according to the order from physicians or pharmacists), package it and hand over it to the individual



**While speaking use the following linking words and phrases.**

Purpose	Addition
In order to / So as to do smth...	Moreover / Furthermore / In addition / Besides / What's more, ... In addition to... / Besides, ... Apart from..., except for
Exemplification	Reason and cause
For example For instance Such as	Because / As / Since Because of / On account of / Owing to / Due to
Succession	Result
First of all First / Firstly To begin with Second / Secondly / Then... Third / Thirdly After that... Finally / In short / To sum up In conclusion / Lastly / Last but not least...	As a result of... Therefore As a result Consequently For this reason

## SPEAKING 2

### *Being Diplomatic & Meeting Face-to-face*

#### *Start-up*

**1. Do the Office Etiquette questionnaire from a business magazine. Mark the statements T (true), F (false) or D (it depends). Explain your answers.**

1. It is perfectly acceptable to call the boss by their first name.
2. You should never socialize with managers after work.
3. If a superior asks you to bring coffee for a visitor, you can tell them politely it's not your job.
4. Personal calls are acceptable only at certain times of the day.
5. Staying late at the office to finish your work is a sign of inefficiency.
6. In meetings, it is advisable for junior staff to speak only when invited to do so.
7. It is OK to offer suggestions to superiors about how to improve the business.



**2. Listen to two versions of a conversation between Tiffany, an intern, and Simon, her supervisor. Choose the words that describe Simon’s behavior.**

**Version 1, Version 2**

Version 1 – Simon is:			Version 2 – Simon is:		
objective	dogmatic	a good listener	objective	dogmatic	a good listener
impatient	diplomatic	friendly	impatient	diplomatic	friendly
firm	understanding	firm	firm	understanding	firm
insincere	authoritarian	threatening	insincere	authoritarian	threatening
weak	frank		weak	frank	

**3. Discuss the following questions.**

1. Why is Simon’s communication style more efficient in Version 2?
2. Are there situations when the style in Version 1 is more appropriate?
3. Which of the two styles is acceptable and more effective in a company?

**4. Complete the useful expressions for being diplomatic in the chart below (1, 2, 3, 4, 5). Then listen to Version 2 again and check your answers.**

Useful expressions: Being diplomatic		
<b>Introductory phrases</b>		
I think (1) _____ you _____ As a future manager, I think you (2) _____ ...	It seems to me that ...	Actually, I think ...
<b>Modal verbs</b>		
Well, you (3) _____ want to think _____ ...	You could, maybe, ...	You’d do better (not) to ...
<b>Negative questions</b>		
But, (4) _____ you think you _____ ...? Why (5) _____ you _____ Maureen ...?	Wouldn’t you agree that ...?	Wouldn’t it be better (not) to ...?

**5. Make these comments more diplomatic.**

1. You shouldn’t disturb your co-workers. – *Wouldn’t it be better not to disturb your co-workers?*
2. You won’t meet deadlines if you don’t prioritize.
3. Delegate, or you’ll never finish the job.
4. You shouldn’t eat at your desk.
5. Don’t make personal calls at work.
6. If you ignore your colleagues, don’t expect them to help.
7. You’ll make yourself ill if you don’t take care of your life-work balance.
8. Don’t take three-hour lunch breaks.

9. You shouldn't arrive late every morning.
10. You won't make a good impression if you fall asleep at meetings.
11. If you work too hard, you'll get stressed.

**6. With a partner, read the dialogue aloud. Then make it more diplomatic.**

A: - You disagreed with the boss this morning. Not a good idea!

B: - So, what? I was right, he was wrong.

A: - But you are always aggressive!

B: - And you should mind your own business!

A: - You'll never progress in this company if you can't accept criticism.

B: - So that's why you never got promotion, right?

A: - Well. Unless you change your attitude, don't expect any support from me.

B: - Look, just forget it, OK? It's coffee time anyway.

## WRITING

---

### Writing a CV

*CV* stands for 'curriculum vitae', a Latin term meaning 'course of life'.

*Résumé* has a similar meaning; it is more commonly used in American English.

**1. What information would you include in your CV? Mark these ideas Y (yes), N (no) or D (it depends).**

- your age
- your holiday jobs
- your interests
- your hard and soft skills
- your pets
- your photo
- your professional objectives
- your religion



**2. Listen to a recruitment consultant talking about what to include in a CV. Compare your ideas from Exercise 1 with what he says.**

**3. Read the CV. Choose the correct answers.**

1. Robin is *a woman / a man*.
2. Robin wants to become *a trainer / a volunteer / a manager*.
3. Robin studied in *Montreal / Toronto / Detroit*.
4. Robin has experience in the *restaurant / automobile / tourist industry*.
5. Robin is good at *running / singing / languages*.

<b>ROBIN A. VANDERVELT</b>
Date of birth: 17 April, 1998 Nationality: Canadian Address: 134 Cedar Avenue, Montreal
<b>CAREER OBJECTIVE</b>  I hope to gain experience and develop my skills in a trainee management position with a large industrial company.
<b>EDUCATION</b>  2016-2019 B.Com, Rotman School of Management, University of Toronto
<b>WORK HISTORY</b>  January – June 2018 Work placement, General Motors, Detroit, USA I assisted the supply chain manager. I updated the supplier database and coordinated meetings. July – September 2017 Holiday job, Abbott Laboratories, Montreal I worked as an administrative assistant. I dealt with all hotel and travel bookings. June – August 2016 Holiday job, Quebec Summer Camps I designed, planned and implemented sports and outdoor activities for children aged 10 to 14.
<b>POSITIONS OF RESPONSIBILITY</b>  2018 - 2019 Volunteer manager, University Women’s Center I managed a team of volunteers. We provided information and support for women students. 2017 – 2018 Captain, Ontario Women’s Student Basketball Team I handled the team’s budget, organized matches and ran events.
<b>OTHERS</b>  Bilingual French / English, fluent Spanish, excellent computer skills Driving licence
<b>REFERENCES</b>  Available on request

**4. Number these sections in the order they appear in the CV.**

- what I know about work
- what I want to do
- who I am
- what other people say about me
- what I know about leadership
- what I know about my subject
- what else I can do

**5. How did Robin express this information in a dynamic way in her CV? Find the sentences in her CV to correspond to the ones below.**

1. I was an intern in the supply chain department.
2. I did data entry about suppliers.
3. I checked the rooms were free.
4. I was a temporary secretary.
5. My job was booking tickets and rooms.
6. I was a sports and activities leader.
7. I helped the other volunteers.
8. I checked if we had enough money.
9. I spoke to other teams.
10. I did all the hard work at event.

**6. Rewrite these sentences from CVs to give a better impression. Use the verbs in brackets.**

**Example:**

*I did various jobs in a production department. (assist)*

*I assisted the production manager.*

1. I phoned hotels and travel agencies. (deal with)
2. I opened letters and signed for deliveries. (handle)
3. I gave out brochures on the company stand at an exhibition. (run)
4. I was the receptionist for company visitors. (welcome)
5. I made sandwiches and coffee in a movie studio. (provide)
6. It was my job to imagine new procedures and make people follow them. (design, implement)
7. My job was to tell the other people what to do and show them how to do it. (manage, coach)

**7. Look at the [CV template](#). Create your own CV.**

## LISTENING

---

### *Robots Cooking: The Restaurant of the Future*

#### **SETTING THE CONTEXT**

1. Have you ever heard about ghost kitchens? What are they like? Google some other names for the same concept.
2. You are going to watch a video about the use of robots in food processing. Modern robots are able to make burgers, patties, pizza, salads and coffee on their own. Which dish (from the ones listed above) would you like to try? Why?

## ACTIVATING VOCABULARY

Match the English words (phrases) with their Russian equivalents.

1. delivery	a) сбережения
2. labor costs	b) предварительная настройка
3. to hire	c) акционер; владелец акций
4. junk food	d) настраиваемый
5. shrinking population	e) питательный
6. customizable	f) нездоровая пища
7. savings (pl)	g) поставка, доставка
8. shareholder	h) торговый автомат
9. nutritious	i) сокращение населения
10. preset	j) затраты на оплату труда
11. vending machine	k) нанимать, приглашать на работу

Before proceeding to LISTENING COMPREHENSION section, please follow the [LINK](#) to watch the video.



## ***LISTENING COMPREHENSION***

### **1. Choose the best answer to these questions.**

1. In *The Spice* restaurant in Boston the customer may be served healthy dishes \_\_\_\_\_.
  - a. for up to 8 dollars
  - b. in 7 minutes
  - c. designed by a robot
2. Restaurant owners in Japan need to have restaurants that are able to work efficiently with fewer humans because of \_\_\_\_\_.
  - a. low labor costs
  - b. a low number of unskilled workers
  - c. a high number of robots with remarkable movement capabilities
3. Because of the use of pizza making robots and locally sourced responsibly farmed ingredients Zume's pizzas are \_\_\_\_\_.
  - a. about half the calories and half the fat of the national average for a pizza
  - b. about half the price of the national average for a pizza
  - c. All above
4. MIT researchers found that \_\_\_\_\_.
  - a. human teams are more productive than machine teams
  - b. only machine teams are more productive than only human teams
  - c. human and machine teams (when working together) are the most productive
5. Four MIT engineering students started \_\_\_\_\_.
  - a. the Spice restaurant
  - b. the Creator burger restaurant
  - c. the Zume pizza
6. What is true about the Creator burger restaurant?
  - a. The machines are able to make 240 burgers in an hour
  - b. The Creator burger is cheaper than a burger at McDonald's
  - c. All the prep work is done by the machines
7. What is Sally?
  - a. An AI driven robotic arm that works as a kitchen assistant.
  - b. A healthy food vending machine.
  - c. A mobile kitchen system.
8. Sally can be found \_\_\_\_\_.
  - a. in virtual kitchens
  - b. in hospitals and university campuses
  - c. in schools
9. Who started a kitchen company called Cloud Kitchens?
  - a. The former CEO of SpaceX.
  - b. The former CEO of Google.
  - c. The former CEO of Uber.

10. Zume stopped making pizzas in 2020 and refocused on mobile kitchen systems because of \_\_\_\_\_.
- the lack of unskilled workers
  - the rise in online food deliveries these days
  - the cost of delivery trucks

**2. The video you've watched is rich in numbers. Try to recall what these numbers refer to:**

1. seven dollars and fifty cents	
2. 46 years old	
3. 150 meals	
4. 240 burgers	
5. 70 locations	
6. 6.20,000 devices	

**3. Match the words that go together in the video.**

1) to customize	a) for having expensive buildings
2) robotic	b) of food packages
3) to replace junk food	c) students
4) robotic minded	d) dishes
5) to scan the barcode	e) works
6) to provide automated	f) heating
7) to be obsessed	g) conveyor belt
8) to eliminate the need	h) vending machines
9) responsibly	i) work
10) induction	j) food production
11) prep	k) with robotics
12) mechanical	l) farmed ingredients

**4. Discuss the following questions.**

- What are the benefits of having robots cooking?
- What are the tasks of human workers in robotic kitchens?
- What robotic equipment is used in the Spice restaurant?
- What does the Amazon microwave allow customers to do?
- What does the author of the video think about the future robots cooking your food deliveries?

**5. Make a plan that outlines the main points of the video.**

**6. Summarize the main content of the video in 10-12 sentences using the plan.**



# UNIT 13

## WEB DEVELOPMENT

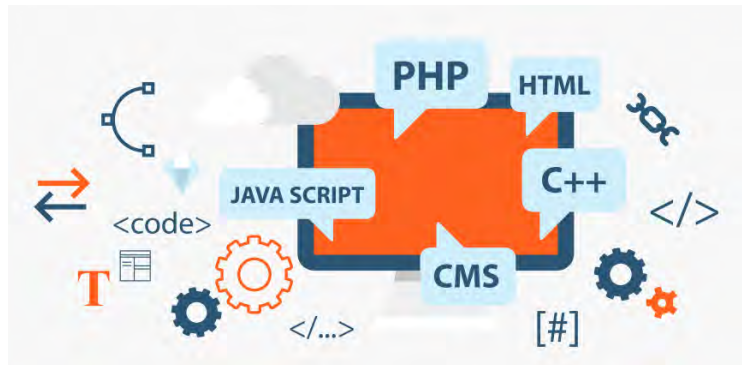
### START-UP

---

#### 1. Answer the questions.

1. Would you like to develop websites? Have you ever tried to create one?

2. What do you think are the necessary skills to become a successful web developer?



### VOCABULARY

---

#### 1. Match the words with their definitions.

- |                          |  |
|--------------------------|--|
| 1) web development       | a) the server-side development of an application which focuses on how the site works                                   |
| 2) to maintain           | b) the manner in which anything is arranged  |
| 3) on-premises hardware  | c) a list of choices that appears when you give the computer a command   |
| 4) front-end development | d) an area on a computer or other electronic device that you can touch in order to carry out a particular action       |
| 5) back-end development  | e) the process of building and maintaining websites for the Internet or Intranet                                       |
| 6) touchpoint            | f) the development of the graphical user interface of a website, so that users can view and interact with that website |
| 7) full-stack developer  | g) to keep in proper or good condition   |
| 8) layout                | h) a GUI design approach used to create content that adjusts smoothly to various screen sizes                          |
| 9) drop-down menu        | i) the company's own servers and IT environment  |
| 10) responsive design    | j) a person who can develop both client and server software  |

#### 2. Match the synonyms given below.

- |              |                |
|--------------|----------------|
| 1) to define | a) complicated |
| 2) to alter  | b) to put in   |
| 3) to ensure | c) on-site     |
| 4) smoothly  | d) skillful    |

- |                |                         |
|----------------|-------------------------|
| 5) on-premises | e) to guarantee         |
| 6) to simplify | f) foundation           |
| 7) complex     | g) to store on a server |
| 8) to insert   | h) to change            |
| 9) layout      | i) adaptive             |
| 10) responsive | j) to determine         |
| 11) to host    | k) to streamline        |
| 12) proficient | l) seamlessly           |
| 13) framework  | m) arrangement          |

**3. Complete the sentences with the words and phrases from the box.**

**configurations, host, layout, responsive design, on-premises, adapt, content, proficient, smoothly, maintain**

- HTML and CSS are two languages that control the \_\_\_\_\_ and \_\_\_\_\_ of a page in any given browser.
- There is a list of tasks that should be done to keep your website running \_\_\_\_\_.
- Performance will vary depending on your hardware and software \_\_\_\_\_.
- It's important that your site can \_\_\_\_\_ to any screen size.
- Consumers have become more \_\_\_\_\_ at shopping online.
- What should we do to \_\_\_\_\_ our website in a relevant condition?
- With \_\_\_\_\_ you can make sure your website looks its best on cellphones, tablets, laptops and desktops screens.
- Companies choose to \_\_\_\_\_ their services running on \_\_\_\_\_ infrastructure as opposed to cloud-based service due to security reasons.

**4. Complete the table with the appropriate derivatives. Pay attention to the meaning of the words.**

Verb	Noun	Adjective / Participle
maintain		
		visual
	configuration	
found		
		simple
	reference	
respond		
	adaptation	
		interactive
implement		

**5. Complete the sentences with the appropriate derivative of the word given in capitals.**

1. A night \_\_\_\_\_ system is used to record things that can't be seen by the naked eye in the dark. (VISUAL)
2. \_\_\_\_\_ to the dictionary when you don't know how to spell a word. (REFERENCE)
3. A car requires frequent \_\_\_\_\_ to keep the brakes, oil, and headlights in check, among other things. (MAINTAIN)
4. The \_\_\_\_\_ of business is a strong demand for software development services in the area. (FOUND)
5. If you're running a network, you can \_\_\_\_\_, monitor and maintain anti-virus programs using your network server. (CONFIGURATION)
6. Detailed \_\_\_\_\_ of the plans was left to the regional offices. (IMPLEMENT)
7. \_\_\_\_\_ methods focus on \_\_\_\_\_ quickly to changing realities. (ADAPTATION)
8. The new software should \_\_\_\_\_ the production process. (SIMPLE)

## READING

---

**1. Read the text and answer the questions.**

1. What is web development?
2. What does web development include?
3. What are the main types of web development?
4. What does front-end development refer to?
5. What kind of specialist designs front-facing aspects of a website?
6. What does a front-end developer deal with compared to a web designer?
7. What is HTML responsible for?
8. What is CSS used for?
9. What does JavaScript allow a front-end developer to do?
10. What does back-end development refer to?
11. What is the back-end made up of?
12. What programming languages are used by back-end developers?
13. What is the function of a framework?
14. What are the strengths and weaknesses of a framework?
15. What features do libraries provide for developers?
16. What are full-stack developers concerned with?

### Web Development

Web development is the process of building and maintaining websites for the Internet or Intranet that are accessed through a web browser and hosted on a server, either on on-premises hardware or in the cloud. Web development ranges from creating static web pages to complex web applications, like social network applications and electronic business applications.

Web development may also include web design, web programming, database management, web content development, and network security configuration, among other tasks. There are two main types of web development: front-end development and back-end development.

Front-end development (or client-side scripting) refers to everything that the end user experiences directly: from text and colors to fonts, buttons, images, and navigation menus. It's important to note that, although front-end developers deal with the visual and interactive side of a website, they don't actually design these front-facing aspects of a website; this is the job of a UX / UI designer.

So, web designers are concerned with the look and feel of the website, how it's laid out, and what buttons and touchpoints the user interacts with. A front-end developer takes the visual design as provided by the web designer and builds it into a live, fully functional website by implementing a suitable code and using the front-end languages such as HTML (Hypertext Markup Language), CSS (Cascading Style Sheets), and JavaScript, as well as frameworks like AngularJS, Bootstrap, and so on.

HTML defines the basic framework of a website – the foundation upon which everything else is built upon. It forms the blocks that define a page's layout, format, and critical components.

CSS is used to style the content of a website. The HTML is responsible for the content and structure of the web page, while CSS determines how this content should be presented visually. CSS can be used to add colors, change fonts, insert backgrounds and borders. CSS is also used to optimize web pages for responsive design, ensuring they adapt their layout to whatever device the user is on.

JavaScript programming language is used to take care of the interactivity of many unique website elements. It can be used to create effects that alter the appearance of icons and drop-down menus, add animations, games, and other interactive elements.

Back-end development (or server-side scripting) is the part of a website that the user doesn't actually see. Back-end developers build the digital infrastructure and behind-the-scenes functionality of a website to ensure it runs smoothly. The back end is made up of the server the website is hosted on, an application that operates the site and a database that stores the site data.

Back-end developers have to know how to build servers with modern frameworks, and how to manage databases and data on a web server. There are more back-end coding languages than front-end languages. That's because browsers – at the front-end – only understand JavaScript, but a server – at the back-end – can be configured to understand virtually any language.

Typically, back-end developers use server-side languages such as PHP, Python, Ruby, Java, and C#. These programming languages often run on frameworks that simplify the web development process.



A framework contains ready-made components and tools that enable the developer to write code faster, and many frameworks also contain libraries. On the one hand, a framework gives the developer a structure to work from. On the other hand, the framework you choose to work with will largely dictate the way you build your website or app. Some popular frameworks include Laravel, Rails, Django, .Net, and others. A library contains a collection of useful prewritten code that enables developers to reach the same end goal while writing less code.

The developers that are proficient in both front-end and back-end tasks are called full-stack developers [31].

## **2. Decipher the abbreviations used in the text.**

UX / UI, HTML, CSS, PHP.

## **3. Read the text again and say whether these statements are true or false.**

1. A website is hosted either on on-premises server or in the cloud.
2. Web development ranges from creating static web pages to complex web applications.
3. Front-end developers design fonts, buttons, images, and navigation menus of a website.
4. HTML, CSS and JavaScript are server-side languages.
5. CSS is used to define the basic framework of a website.
6. CSS is also used to optimize web pages for responsive design.
7. Back-end developers are involved in building servers and managing databases and data on a web server.
8. There are more front-end coding languages than back-end languages.
9. Browsers at the front-end can be configured to understand virtually any language.
10. Server-side languages such as PHP, Python, Ruby, Java, and C# run on frameworks like AngularJS, Bootstrap, and so on.

## **4. Match the words that go together in the text.**

- |                           |                             |
|---------------------------|-----------------------------|
| 1. to simplify            | a. for responsive design    |
| 2. to run                 | b. a digital infrastructure |
| 3. prewritten             | c. scripting                |
| 4. to optimize web pages  | d. backgrounds and borders  |
| 5. to design front-facing | e. a web browser            |
| 6. to alter               | f. code                     |
| 7. to build               | g. web development process  |
| 8. server-side            | h. a page's layout          |
| 9. to access through      | i. aspects of a website     |
| 10. to define             | j. smoothly                 |

## **5. Make three sentences with any word combinations from Exercise 4.**

## 6. Complete the sentences with the correct preposition.

1. Web designers are concerned \_\_\_\_\_ the look and feel of the website, how it's laid \_\_\_\_\_ and what buttons the user interacts \_\_\_\_\_.
2. Back-end developers have to know how to manage databases and data \_\_\_\_\_ a web server.
3. Front-end developers are proficient \_\_\_\_\_ the visual and interactive side of a website.
4. Web development ranges \_\_\_\_\_ creating static web pages \_\_\_\_\_ complex web applications.
5. A website is hosted \_\_\_\_\_ a server, either \_\_\_\_\_ on-premises hardware or \_\_\_\_\_ the cloud.
6. Full-stack developers deal \_\_\_\_\_ both front-end and back-end tasks.
7. PHP, Python, Java, and C# run \_\_\_\_\_ frameworks that streamline the web development process.

7. Develop the ideas about Web development with the help of the Mind Map. Follow the [LINK](#).

## 8. Make a short summary of the text.

## LANGUAGE FOCUS \_\_\_\_\_

### CONDITIONALS

Consult grammar rule using the [LINK](#).

1. Choose the correct option between Zero, First and Second Conditionals to complete the sentences.

1. When I go on holidays, I always \_\_\_\_\_ my neighbor to feed the cat.
  - a. ask
  - b. asked
  - c. would ask
2. If I \_\_\_\_\_ the problem to Andrew, he'll help me.
  - a. explain
  - b. explained
  - c. will explain
3. We'll be late for the film if we \_\_\_\_\_.
  - a. didn't hurry up
  - b. won't hurry up
  - c. don't hurry up
4. What would you say if he \_\_\_\_\_ you a job?
  - a. offers

- b. offered  
c. would offer
5. I'll have lunch as soon as \_\_\_\_\_ home.  
a. I'll get  
b. I'd get  
c. I get
6. I \_\_\_\_\_ English every day if I had time.  
a. will study  
b. studied  
c. would study
7. If I didn't need the money, \_\_\_\_\_ less.  
a. I'd work  
b. I'll work  
c. I work
8. What would you do differently if you \_\_\_\_\_ to do this again?  
a. have  
b. had  
c. would have
9. If I \_\_\_\_\_ the more expensive computer, I won't have enough money to pay my rent.  
a. buy  
b. bought  
c. will buy
10. The project \_\_\_\_\_ delayed if I don't finish this report on time.  
a. is  
b. will be  
c. would be
11. If I \_\_\_\_\_ you, I'd accept this job offer.  
a. am  
b. were  
c. will be
12. When I look at a computer screen for too long, I \_\_\_\_\_ a headache.  
a. would get  
b. got  
c. get
13. You don't need to print your tickets as long as \_\_\_\_\_ the email.  
a. you have  
b. you had  
c. you'll have
14. If I cared what people think, I \_\_\_\_\_ a very boring life.  
a. had  
b. will have  
c. would have

**2. Match the expressions to make conditional sentences about the imaginary present / future.**

1. We could buy that laptop	a. if we asked him.
2. If the weather wasn't so bad	b. I would make a little more effort.
3. May be I could help you	c. if it was a little bit cheaper.
4. I'm sure Oleg would help us	d. I first would think it over.
5. If you could live anywhere in the world	e. if you told me what was wrong.
6. If I were in your place	f. I'd suggest going for a walk.
7. If you called a taxi,	g. where would you choose?
8. If they made me an offer,	i. you could arrive at the office on time.

**3. Complete the sentences with a suitable conditional clause.**

1. If I had a little more time, I .....
2. If you wait a minute, I .....
3. If I were proficient in C#, I .....
4. If I am a back-end developer, I .....
5. I would use JavaScript if I .....

**4. Say what you would do in somebody's place. Make at least three sentences.**

**Example:**

*If I were you, I'd work harder.*

**5. Match the expressions to make conditional sentences about the imaginary past.**

1. If I'd known it was your birthday,	a. if she weren't so disorganized.
2. The police said he wouldn't have hit that lorry	b. he would have signed the contract.
3. I wouldn't have asked her to come into work	c. if he hadn't been driving so fast.
4. We'd have a lot more money nowadays	d. we would have succeeded in yesterday's talks.
5. If the Managing Director hadn't gone on a business trip,	e. I would have got you a present.
6. If your side had been better prepared,	f. if I'd known she was ill.
7. She wouldn't have missed the deadline	g. if our flat hadn't been so expensive.



**6. Choose the correct option to complete the sentences with the Third conditional.**

1. I \_\_\_\_\_ a cake this morning if I'd known you were coming.
  - a. buy
  - b. would bought
  - c. would have bought
2. I would have left work earlier if my boss \_\_\_\_\_ me permission.
  - a. gave
  - b. had given
  - c. would give
3. If you hadn't seen the car, it \_\_\_\_\_ us back there.
  - a. would have hit
  - b. hadn't hit
  - c. would hit
4. I \_\_\_\_\_ you it wasn't a good idea, if you'd asked me.
  - a. would tell
  - b. would have told
  - c. will tell
5. If my train had been on time, \_\_\_\_\_ my meeting.
  - a. won't miss
  - b. wouldn't miss
  - c. wouldn't have missed
6. If they \_\_\_\_\_ me, I wouldn't have been able to cope with the situation.
  - a. wouldn't have encouraged
  - b. didn't encourage
  - c. hadn't encouraged
7. They would have seen the fireworks if they \_\_\_\_\_ here 15 minutes earlier.
  - a. were
  - b. would be
  - c. had been
8. The meeting \_\_\_\_\_ more productive if it hadn't been so long.
  - a. would have been
  - b. would be
  - c. was
9. If hadn't been ill, I \_\_\_\_\_ to the party.
  - a. will go
  - b. would go
  - c. would have gone
10. If he \_\_\_\_\_ in time, he would have taken all necessary measures.
  - a. were warned
  - b. had warned
  - c. had been warned
11. If the quality of the product hadn't been so bad, we \_\_\_\_\_.
  - a. hadn't complained

- b. wouldn't complain
  - c. wouldn't have complained
12. If \_\_\_\_\_ about their financial problems, I \_\_\_\_\_ business with them.
- a. I'd know; didn't do
  - b. I'd known; wouldn't have done
  - c. I'd have known; hadn't done

**7. Complete the sentences with the correct form of the verb in brackets using Mixed conditional.**

1. If he had done well at his exams, he \_\_\_\_\_ (have) a more enjoyable holiday now.
2. We \_\_\_\_\_ (not / be) late if you hadn't taken such a long time getting ready.
3. If I didn't have so much work this week, I \_\_\_\_\_ (go) with you yesterday.
4. If he were more qualified, he \_\_\_\_\_ (give) that vacancy last year.
5. If you \_\_\_\_\_ (start) studying earlier, you'd feel more prepared for the exam.
6. If you \_\_\_\_\_ (not / stay) out late last night, you wouldn't be tired now.
7. If she were on holiday now, we \_\_\_\_\_ (not / be) able to contact her.

**8. Complete the dialogue with the correct form of the verbs in brackets.**

*Terry is a music student. He rents a room from Mr. Wilson.*

**Mr. Wilson:** – Can't you stop playing that bagpipe? You're making an awful noise.

**Terry:** – Well, if \_\_\_\_\_ (not / practise), I won't pass my exam.

**Mr. Wilson:** – But why at night? It's half past twelve. If you \_\_\_\_\_ (play) it in the daytime, I \_\_\_\_\_ (not / hear) you because I'd be at work. If you \_\_\_\_\_ (tell) me about this bagpipe when you first came here, I \_\_\_\_\_ (not / let) you have the room. I'm afraid it's becoming a nuisance. If you \_\_\_\_\_ (not / play) so loud, it \_\_\_\_\_ (not / be) so bad.

**Terry:** – I'm sorry, but you can't play a bagpipe quietly.

**Mr. Wilson:** – If I \_\_\_\_\_ (realize) a year ago what you were going to do, then I \_\_\_\_\_ (throw) you out long ago. If you go on making this noise at night, I \_\_\_\_\_ (have) to complain to your college.

**9. Complete the sentences with a suitable conditional clause.**

1. We would have built an advanced website if .....
2. I would have learnt much more English if .....
3. If I had done my best .....
4. If your website had been optimized for responsive design .....
5. If I had chosen to work with a framework .....

**10. Choose the correct option to complete the sentences with Wish-clauses.**

1. I wish I \_\_\_\_\_ go to work tomorrow.
  - a. wouldn't have to

- b. didn't have to
  - c. hadn't had to
2. If only I \_\_\_\_\_ that to her. She is not speaking to me now.
    - a. wouldn't say
    - b. hadn't said
    - c. didn't say
  3. It looks like rain. I wish I \_\_\_\_\_ my umbrella.
    - a. would have brought
    - b. had brought
    - c. brought
  4. If only he \_\_\_\_\_ here now. He'd know what to do.
    - a. would be
    - b. wasn't
    - c. were
  5. If only they \_\_\_\_\_ you for advice before they started the project. You're the expert!
    - a. would ask
    - b. had asked
    - c. asked
  6. The traffic on the roads was terrible. I wish we \_\_\_\_\_ the train instead!
    - a. would catch
    - b. caught
    - c. had caught
  7. I'm not saying it again. I wish \_\_\_\_\_ when I'm talking.
    - a. you listen
    - b. you'll listen
    - c. you'd listen
  8. If only I \_\_\_\_\_ the time off work, I'd come and visit you.
    - a. could take
    - b. would take
    - c. took
  9. I'm so tired. I wish I \_\_\_\_\_ home earlier last night.
    - a. had gone
    - b. went
    - d. would have gone.

### 11. Correct the mistakes.

1. I wish the weather isn't so awful today.
2. I wouldn't leave my last job if the salary had been better.
3. This website would be better if you would add some more interactive elements.
4. I'll make some remarks if I were in charge of this project.
5. If I had been you, I'd try to follow the advice of your boss.
6. I wish he phones me to say that he wasn't coming to work today.
7. We would have stopped the meeting now, if there is nothing else to discuss.

8. If I had followed his advice, I wouldn't have been in so much trouble now.
9. He will definitely pass the exam if he did more work.
10. Would it be all right if I had had a day off?

## SPEAKING

### Cover Letter

#### Start-up

Do you know what a cover letter is and what information it includes?



#### 1. Read Ben's cover letter. Number the topics in the order they are mentioned.

- education
- next step
- previous experience
- type of work requested

#### Ben's cover letter

Dear Ms. Finlay,

I am a third-year student at the University of Warwick, studying International Business.

I would like to gain business experience on a one-year internship with a leading cosmetics manufacturer like Rose Inc.

I already have some experience as a trainee market analyst with L'Oreal. I am motivated and hard-working. I am confident that I can make a valuable contribution to your organization.

I will be happy to accept any position in logistics or marketing. My CV is attached.

Please feel free to contact me for more details or to arrange an interview.

#### Ben's CV

##### BEN BROWN

DATE OF BIRTH: 3 October, 1998

NATIONALITY: British

ADDRESS: 4 Green Street, Coventry

##### EDUCATION

2015-2019 University of Warwick:  
BSc, International Business

##### WORK HISTORY

September 2018 – June 2019

Work placement, L'Oreal, Paris.

I was responsible for conducting an online market survey.

July-August 2016

Holiday job, Car-Glazer, Prague

I worked as a technician. I repaired and replaced car windows.

November 2015 – June 2017

Volunteer, University Counselling Service

I volunteered as a telephone counsellor, listening to students' problems.

Thank you for your time.

Yours sincerely,  
Ben Brown

### **POSITIONS OF RESPONSIBILITY**

2018-2019

President of University Salsa Society  
I managed a team of volunteers. We organized monthly dances and a salsa competition.

### **SKILLS**

My skills include good spoken and written French and basic Czech.  
I have a working knowledge of MS Office.  
I hold a clean driving licence.

**2. Listen to a conversation between Ben Brown and Ms. Finlay (HR). Answer the questions.**

1. Which three points in work history and skills from Ben's CV are not mentioned?
2. Make a list of questions the interviewer is asking Ben.
3. What other questions can she ask?

**3. Get into pairs to role play a similar conversation. Exchange your own CVs. Study your partner's CV. Take it in turns to act as an interviewer or an interviewee. Use the conversation between Ben and Ms. Finlay as a model.**

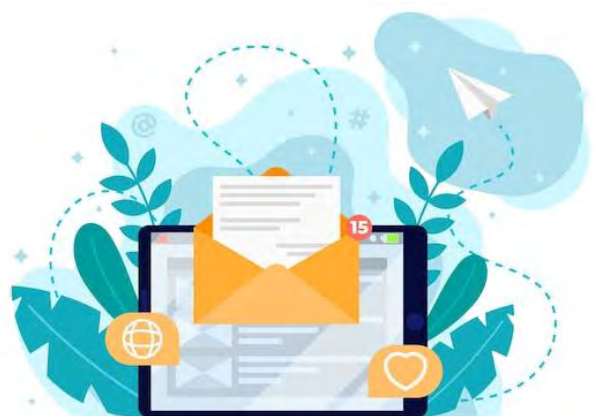
## **WRITING**

---

### *Cover Letter*

#### *Start-up*

Before you write the cover letter, you need information about the job, especially the qualifications needed. The best place to find this information is in the advertisement where you learned about the job.



**1. Read the two job advertisements. Pay attention to the qualifications needed. Then complete the Job Requirements Chart.**

## Advertisement 1

NetLives

The ADMINISTRATIVE ASSISTANT will work with the general manager. The individual will manage schedules and purchase office supplies. The candidate must be proficient in MS Office (MS Excel, Google Docs). The admin. asst. will be responsible for dealing with incoming / outgoing mails, phone calls, etc.

A high school degree and a minimum of 2 years of experience are required.

NetLives offers a dynamic and innovative work environment.

Contact Information

Maria Sanchez

HR Specialist

msanchez@netlives.com

NetLives Ltd.

632 Garrison Road

Cambridge CB4 1 HD

Tel: 1223 334566

## Advertisement 2

### Administrative Assistant

A local Internet service provider has a full-time position available for an administrative assistant. This individual will perform general administrative duties such as preparing current documents and dealing with incoming correspondences. Candidates must be confident PC users. Successful candidates must also have excellent communication skills. A college degree is a must.

E-mail resume to jobs@office.com.

## 2. Tick the requirements mentioned in the ads.

JOB REQUIREMENTS CHART		
Ad 1	Ad 2	Requirements
		Will perform general administrative duties such as preparing current documents and dealing with incoming business correspondences.
		Will have a college degree.
		Must be proficient in MS Office (MS Excel, Google Docs). Will have at least 2 years of experience as an administrative assistant.
		Must have excellent communication skills.

**3. Read through a cover letter. The body of a cover letter generally has four parts.**

<b>Opening</b> Tell that you are applying for the job and the source of information.	→ Dear Ms. Sanchez,  I read about a job opening for an administrative assistant on the NetLives website.
<b>Focus</b> Tell why you are suited for the job.	→ I am a recent graduate of EMP Secretarial School, and I was in the top of my class. I am looking for a challenging work environment like that at NetLives.
<b>Action</b> Tell what you plan to do.	→ I will call you next Monday to discuss my enclosed resume.
<b>Closing</b> Be positive.	→ I look forward to meeting with you soon. Sincerely yours, <i>Michele Peters</i> Michele Peters

**4. Choose the sentence that is most similar to the sentence in the cover letter from Exercise 3.**



**Opening**

- I am applying for the position of administrative assistant.
- I need a job.
- I saw your advertisement for an administrative assistant in the November 14 International Herald Tribune.



**Focus**

- My work experience matches your requirements. I worked as an administrative assistant for two years.
- I'm a quick learner. I've never worked before.
- I have the skills required. I am proficient in MS Office (MS Excel, Google Docs).



**Action**

- I will contact you early next week.

- b. I will call you on Tuesday morning to discuss the position.
- c. I'll be at home if you need me.



### Closing

- a. Looks good, right?
- b. I look forward to working with NetLives.
- c. I look forward to talking to you next week.

### Rules for Salutation

–Write to a specific person. Before you write, try to find out the name (and gender) of the person you are writing to. You can call the company or check their website.

*Dear Ms. Maroon,*

*Dear Mr. Ping,*

–If you don't know the gender, use the person's full name or initial.

*Dear Lin Croft,*

*Dear D. Maxon,*

–If you don't know the name, use the person's title.

*Dear Human Resource Specialist,*

*Dear Recruiter,*

–If you know only the address, use a generic salutation.

*Good morning,*

### 5. Write the salutation for a cover letter for the following jobs.

Position	Source	Contact
1. Customer Service Representative	May 13 Herald Tribune	M. Pollard
2. Account Manager Assistant	A-Way.com website	jobs@a-way.com
3. Receptionist	IronGate.com website	Jane Bowles
4. Executive Assistant	word of mouth (устное общение, молва)	Chee Yu

### 6. Complete these opening sentences for cover letters with the prepositions *about, for, in, and on*. Some prepositions will be used more than one time.

1. I saw your advertisement \_\_\_\_\_ a customer service representative \_\_\_\_\_ the May 13 *Herald Tribune*.

2. I am applying \_\_\_\_\_ the position of administrative assistant announced \_\_\_\_\_ the A-Way.com website.

3. \_\_\_\_\_ the IronGate.com website, I read \_\_\_\_\_ an opening \_\_\_\_\_ a receptionist.

4. Your colleague, Jannie Qin, told me \_\_\_\_\_ the Account Manager Assistant opening.



**7. Rewrite these sentences that describe your experience and skills and explain how you are suited for the job (a university degree, being familiar with some programming languages and computer programs, having excellent communication skills, strong organizational skills, experience of work for a certain period of time).**

1. My work experience matches your requirements. \_\_\_\_\_.
2. My qualifications fit your needs. \_\_\_\_\_.
3. My skills match the job requirements. \_\_\_\_\_.
4. I have the skills required. \_\_\_\_\_.
5. I meet the job requirements. \_\_\_\_\_.

**8. Write *G* if the action has a general time or *S* if the action has a specific time.**

1. I will contact you early next week.
2. I will call you on Tuesday morning to make an appointment.
3. I will e-mail you next week to arrange an interview.
4. On Friday, I will call your assistant to set up an interview.
5. I will telephone you tomorrow to answer any questions you have.

**9. Rewrite these sentences using the expression *I look forward to (+ -ing verb)*.**

1. I want to work with IronGate. – *I look forward to working with IronGate.*
2. I'd like to talk to you next week.
3. I probably should discuss my interest in A-Way with you.
4. I hope I can contribute to your team.

**10. Read the job advertisement and complete the sentences in the letter using the words from the box.**

Changi News
July 2, 20__ Office Manager wanted. Must have high school degree. Send resumé to Mr. Paul Rook. Human Resource Director.

**sincerely, forward, interview, applying, part-time, position, enclosed**

Dear Mr. Rook,  
I am (1) \_\_\_\_\_ for the position of Office Manager that was advertised in the July 2<sup>nd</sup> Changi News. I worked as a (2) \_\_\_\_\_ Office Manager after school for three years. Now I am looking for a full-time position. I have (3) \_\_\_\_\_ my resume, and I would like to schedule an (4) \_\_\_\_\_.  
I will call you early next week to follow up on my application.  
I look (5) \_\_\_\_\_ to discussing this (6) \_\_\_\_\_ with you.  
(7) \_\_\_\_\_ yours,

## 11. Write a cover letter to one of the following job advertisements.

### Front-end developer / Rabota.by

A great opportunity for a talented Front-end developer who joins our Web and Mobile development team.

#### You will:

- Develop modern Web applications using cutting-edge standards and approaches;
- Work closely with a team of professional UI / UX designers, Back-end developers, Business Analysts, QA specialists;
- Integrate Web applications with native device capabilities;
- Communicate with customers and stakeholders.

#### Need to have:

- Experience with JavaScript / HTML5 / CSS3;
- Understanding how to write well-formed, compatible, standard-based JavaScript code;
- Knowledge of data structures / algorithms and principles;
- Intermediate level of English;

#### Nice to have:

- Knowledge in ES6+ and compiled programming languages (TypeScript, Dart, etc);
- Knowledge of modern JS frameworks and libraries (React, Angular);
- Good communication skills.

Please submit your CV as an English.pdf file to:

[contact-leverh@leverh.com](mailto:contact-leverh@leverh.com)

### Junior Golang Developer / LinkedIn.com

We are looking for experienced Junior Golang Developer to join our rapidly growing team.

#### Requirements:

- Experience as a Golang developer from 3 months (course / demo project).
- Understanding of functional and object-oriented programming paradigms.
- Understanding of microservices.
- Knowledge of REST principles.
- Ability to write SQL queries, experience of working with PostgreSQL / MySQL.
- Experience of working with GIT.
- Basic knowledge of Linux.
- English level – A2 (Pre-Intermediate) and up.

#### Advantages:

- Experience of working with gin, viper, zerolog or similar packages.
- Experience of working with document-oriented databases.
- Ability to work with Docker / Kubernetes.

Give your career a flying start with HTsolutions!

Darya Lebedeva

HR Manager

[Darya\\_Lebedeva@htsolutions.com](mailto:Darya_Lebedeva@htsolutions.com)

**12. Read the cover letter. Find nine mistakes in the letter and write the correct word or punctuation. The first one is done for you.**

To: set\_3454@jobs.com  
Subject: Secretarial ~~Positiong~~-Position

Dear Recruiter,  
I am responding for the secretarial vacancy posted on August 16 in your website. I have been an executive secretary since five years. I also have trained other secretaries how to use MS Office and accounting software, and I am very organized. I have attached my resume to this e-mail. I will e-mail you next week to follow up on my apply. I look forward to hear from you soon.  
Sincere yours,  
Liza Sheen

## LISTENING

---

### 7 Trends in Web Development

#### SETTING THE CONTEXT

**1. Let's examine some of the most notable web development quotes out there and see what kind of opinion other people have on the subject of web development. How do you understand them? Express your views.**

*“Websites should look good from the inside and out.”*

*Paul Cookson*

*“Learning HTML and CSS is a lot more challenging than it used to be. Responsive web design adds more layers of complexity to design and develop websites.”*

*Jacob Lett*

*“Writing the first 90 percent of a computer program takes 90 percent of the time. The remaining ten percent also takes 90 percent of the time and the final touches also take 90 percent of the time.”*

*N.J. Rubenking*

**2. Have these quotes provided an answer to your inquiries about web development? Do you feel more inspired and motivated towards web development?**

## ACTIVATING VOCABULARY

### 1. Match the English words (phrases) with their Russian equivalents.

1. sought after	a. понимание
2. to cherish	b. мгновенно, вмиг
3. to implement	c. сеть
4. bit and piece	d. удовлетворять
5. in no time	e. в десять раз
6. to content	f. востребованный
7. grid	g. питание
8. indispensable	h. ценить
9. nutrition	i. мелочь
10. to enhance	j. реализовать
11. tenfold	k. явление
12. insight	l. совершенствовать, повышать
13. phenomenon	m. незаменимый, необходимый

### 2. Match the words having a similar meaning.

1. to cherish	a. to become involved
2. insight	b. to realize
3. to implement	c. to satisfy
4. to enhance	d. understanding
5. indispensable	e. to negate
6. to content	f. to improve
7. to engage	g. necessary
8. to deny	h. to appreciate

Before proceeding to LISTENING COMPREHENSION section, please follow the [LINK](#) to watch the video.

## LISTENING COMPREHENSION

### 1. Choose the best option.

1. When an organization brand comes to building an online presence it requires \_\_\_\_\_.
  - a. less experienced developers
  - b. the user virtual experience
  - c. a well-designed website
2. Web developers now need to be more focused on \_\_\_\_\_.
  - a. ecommerce websites
  - b. evolving trends

- c. online presence
3. One of the most sought after AI implementations is \_\_\_\_\_.
    - a. the grid
    - b. the fitness bands
    - c. 360° video
  4. Apple's Siri and Google's Alexa are some of the most common examples of \_\_\_\_\_.
    - a. virtual reality
    - b. code injection exposure
    - c. speech recognition technology
    - d. motion user interface
  5. The IoT technology has been specifically designed to \_\_\_\_\_.
    - a. to offer its users 3d world experience
    - b. to offer the best life management
    - c. to offer more engagement with a website
  6. The Internet of Things is the area of science that allows us \_\_\_\_\_.
    - a. to collect the data of personal credentials over the cloud
    - b. to collect the data of personal preferences over the cloud
    - c. to collect the data of physical objects over the cloud using the Internet
  7. \_\_\_\_\_ are responsible for offering an interactive and enhanced UI design.
    - a. Smartwatches
    - b. 360° videos
    - c. Voice commands
    - d. Siri and Alexa
  8. The user can call an Uber just \_\_\_\_\_.
    - a. without a voice command and without making use of the application
    - b. by making use of prior experience in virtual reality
    - c. with a voice command without making use of the application
  9. Feedback forms are the most common ways of adding \_\_\_\_\_.
    - a. a malware code injection
    - b. the brand's message
    - c. the simpler navigation
  10. The Motion UI can improve the brand image \_\_\_\_\_.
    - a. fivefold
    - b. tenfold
    - c. twentyfold

**2. Match the words that go together in the video.**

1. the most sought after	a. mobile friendly
2. to depend more on	b. the technology stack
3. There is no	c. over the cloud
4. to make people	d. skills
5. to increase customer	e. image tenfold

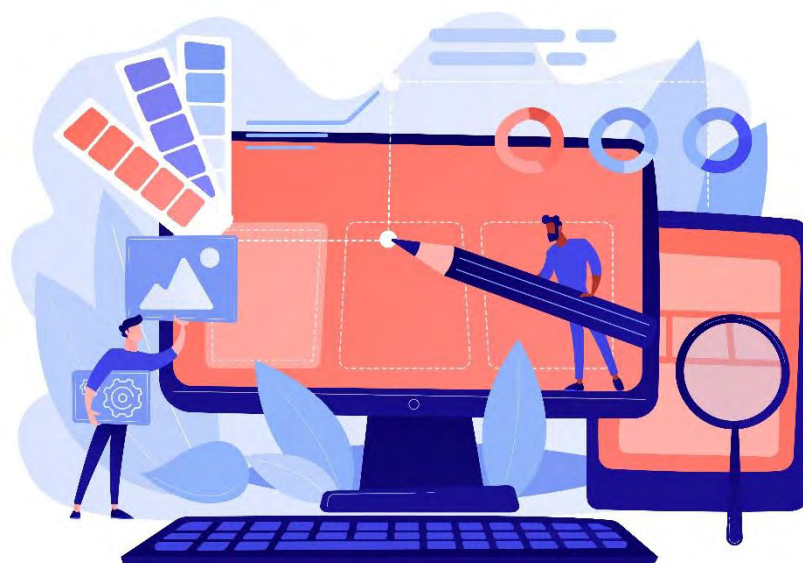
6. 360°	g. denying the fact
7. life	h. injection
8. to collect the data	i. engagement
9. to improve brand	j. management
10. a malware code	k. online purchases
11. to have adequate knowledge of	l. video creation

**3. Discuss the following questions.**

1. What is a web developer in charge of?
2. What kind of knowledge should web developers possess?
3. How are the users characterized if they often make use of mobile apps?
4. What do businesses tend to depend on now?
5. What are the most sought after skills that are currently cherished by major organizations in web development field?
5. How do Apple’s Siri and Google’s Alexa work?
6. What are the most common examples of IoT technology?
7. What are the mentioned devices used for?
8. What do the websites designed with virtual reality allow users to do?
9. What kind of experience do websites with 360° videos offer their users?
10. How can the hacker add a malware code into the form for accessing the server data?
11. What is Motion UI?
12. What advice is given in the video to a web developer?

**4. Make a plan that outlines the main points of the video.**

**5. Summarize the main content of the video in 10-12 sentences using the plan.**



# UNIT 14

## MOBILE APPLICATION DEVELOPMENT

### START-UP

---

#### 1. Answer the questions.

1. What applications have you installed on your mobile devices?
2. Are the skills to develop mobile applications the same as for desk top computer applications?



### VOCABULARY

---

#### 1. Match the words with their definitions.

- |                                 |  |
|---------------------------------|--|
| 1) native application           | a) software that utilizes a limited amount of RAM (low footprint)  |
| 2) hurdle                       | b) the things a company does to make sure that its products and services are as good as they should be   |
| 3) simulated mobile environment | c) able to work across multiple types of operating systems, programming environments or physical devices   |
| 4) software development kit     | d) a software program that is developed for use on a particular platform or device   |
| 5) quality assurance            | e) a problem or difficulty that must be overcome   |
| 6) to deploy                    | f) an organization, a company, or a business   |
| 7) enhancement                  | g) the quality or state of being complete or undivided   |
| 8) pitfall                      | h) a way of dealing with something   |
| 9) integrity                    | i) an increase or improvement in quality, value, or extent   |
| 10) cross-platform              | j) a virtual programming environment, that allows you to test your app by simulating the behavior as well as the hardware or OS of a real device |
| 11) approach                    | k) to bring into effective action  |
| 12) enterprise                  | l) a collection of software development tools in one installable package   |
| 13) lightweight software        | m) a hidden or unsuspected difficulty  |

**2. Match the synonyms given below.**

- |                    |                    |
|--------------------|--------------------|
| 1) to unlock       | a) method          |
| 2) relevant        | b) important       |
| 3) hurdle          | c) aim             |
| 4) to overcome     | d) updated         |
| 5) target          | e) obstacle        |
| 6) finely-tuned    | f) to discover     |
| 7) approach        | g) absence         |
| 8) lightweight     | h) to pack         |
| 9) refreshed       | i) to cope with    |
| 10) vital          | j) appropriate     |
| 11) lack           | k) laborious       |
| 12) to wrap        | l) finely-adjusted |
| 13) time-consuming | m) compact         |

**3. Complete the sentences with the correct word or word combination from the box.**

**lack, pitfalls, cross-platform, overcame, quality assurance, approach, unlock, enhancements**

- The software is truly \_\_\_\_\_ and is available for computers running the Windows, Mac OS X, Linux, and Solaris operating systems.
- We need to adopt a different \_\_\_\_\_ to the problem.
- Harry \_\_\_\_\_ all obstacles to graduate with a first-class degree.
- Despite his \_\_\_\_\_ of experience, he got the job.
- We have made many \_\_\_\_\_ to the software that will strengthen system security.
- We must \_\_\_\_\_ the potential of all our employees.
- Her advice helped me avoid some of the common \_\_\_\_\_ of running a business.
- Many companies have strengthened their \_\_\_\_\_ systems.

**4. Complete the table with the appropriate derivatives. Pay attention to the meaning of the words.**

Verb	Noun	Adjective / Participle
	response	
	conversion	
deliver		
		consuming
optimize		
	assurance	
experience		
	enhancement	



		regular
integrate		
		distributed

**5. Complete the sentences with the appropriate derivative of the word given in capitals.**

- Computers account for 5% of the country's commercial electricity \_\_\_\_\_. (CONSUMING)
- The modest group size allows our teachers to \_\_\_\_\_ to the needs of each student. (RESPONSE)
- The \_\_\_\_\_ of products from the factory to the stores is a major part of company's business operation. (DISTRIBUTED)
- These programs can be \_\_\_\_\_ with your existing software. (INTEGRATE)
- Please order in advance to ensure fast \_\_\_\_\_. (DELIVER)
- It takes 15 minutes to \_\_\_\_\_ the plane into a car by removing the wings and the tail. (CONVERSION)
- This task requires the skills of an \_\_\_\_\_ developer. (EXPERIENCE)
- The airline's scheduling \_\_\_\_\_ program ensures that it serves the maximum number of passengers. (OPTIMIZE)

**READING**

---

**1. Read the text and answer the questions.**

- Why do organizations develop mobile applications?
- What are the ways of getting an app on a mobile device?
- What are major software development approaches?
- What hurdles do developers need to overcome in mobile app development?
- What are native apps built for?
- Are Swift and Objective-C the most popular languages for native Android apps?
- What does development of native apps involve?
- What are the advantages of native mobile apps?
- What approach does hybrid app development take?
- What kind of codebase do hybrid apps use?
- What are the best tools for cross-platform app development?
- Are there any possible pitfalls for hybrid app development?
- What are two main promoters of mobile apps?

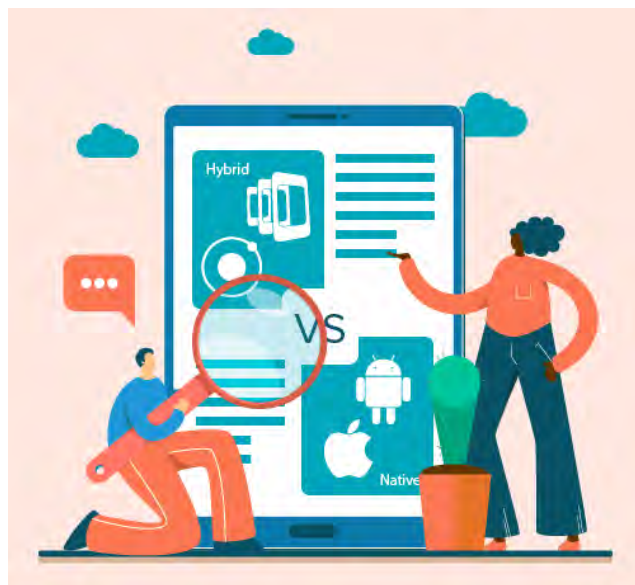
**Mobile Application Development**

Mobile app development is rapidly growing. Today, mobile devices – and the mobile applications that unlock their value – are the most popular way for people and businesses to connect to the internet. To stay relevant, responsive and successful, organizations need to develop the mobile applications that their customers, partners and employees demand.

Mobile application development is the process of creating software applications that run on a mobile device. These applications can be preinstalled on the device, downloaded from a mobile app store or accessed through a mobile web browser. There are several major software development approaches when building mobile applications. They include native and hybrid mobile app development. Whether developers choose native or hybrid app development, one of the first hurdles they'll need to overcome is the relatively limited resources on mobile devices. Target mobile devices will have much less processing power and memory than desktop computers or enterprise servers. So, developers must work to ensure that their mobile app is flexible, convenient, easy to use and lightweight.

Native apps are built for a specific mobile operating system, usually iOS or Android. A native mobile app is coded in a specific programming language. Popular languages for native Android app development are Java or Kotlin. Whereas iOS app development uses Swift and Objective-C for native app development. Developing native apps also involves using different software development kits (SDKs) provided by major platforms. These tools offer a simulated mobile environment for programmers to design and test code. Besides, they provide regularly updated solutions and libraries that interact properly with a given operating system. Furthermore, taking advantage of native APIs (application programming interfaces) can help you build a powerful app.

Native mobile apps ensure fast performance and a high degree of reliability. They have a more finely-tuned user interface (UI), and usually need to pass a much stricter development and quality assurance process before they are released. In addition, some apps can be used offline. However, this type of app is expensive and time-consuming to develop because it is built for one type of operating system, forcing the company that creates the app to convert and optimize it to another platform. Rather than being accessed via the web, native apps are mainly deployed through app marketplaces (such as Google Play or Apple's App Store).



Another option is to go hybrid, taking a write-once-run-anywhere approach. Hybrid apps use a single codebase that can function across multiple platforms. Basically, a hybrid app is a web app built using web technologies such as HTML5, CSS, or JavaScript, wrapped in a native container which loads most of the information on the page as the user navigates through the app.

Moreover, there is a wide range of cross-platform app development tools that can save a considerable amount of coding time, effort, and money. The best tools for cross-platform app development are: NativeScript, React Native, Flutter, Xamarin, etc. Most cross-platform frameworks such as - React Native and Native Script - provide native components to work with the cross-platform code, while some others such as Flutter and Xamarin compile cross-platform code to the native code for better performance. The apps developed with these tools can then be distributed to native app stores. Users don't have to

update each app in the app store manually. Any bug fixes and enhancements will be applied to all platforms and users will get the refreshed version the next time they launch the app.

Hybrid apps, as opposed to native app development, still struggle to get the appearance, touch, and native feel. Besides, the list of possible pitfalls for hybrid app development includes possible performance issues, lack of complete integrity with the device and OS, challenges with complex features implementation, issues with user app experience, challenges with project maintenance, etc.

Both hybrid and native approaches can get the job done. Delivering a great user experience is vital. As mobile usage has taken over traditional browsing paths (desktop / laptop), companies with a mobile presence must constantly think about two key promoters of their application: speed and user experience [19, 27, 34].

## 2. Read the text again and say whether these statements are true or false.

1. Mobile devices unlock the value of mobile apps.
2. Mobile app development is the process of creating software applications that run on a desktop computer.
3. The major software development approaches for building mobile applications include natural and hydraulic app development.
4. When building mobile apps developers have to overcome the limited resources of processing power and memory of mobile devices.
5. Native apps are built to function across multiple platforms.
6. Native type of app is expensive and time-consuming to develop.
7. Native apps are mainly deployed through a mobile web browser.
8. A hybrid app is wrapped in a native container which loads most of the information on the page as the user navigates through the app.
9. With hybrid apps, any bug fixes and enhancements will be applied to all platforms in no time.
10. One of the pitfalls for hybrid app development includes presence of complete integrity with the device and OS.

## 3. Replace the words in *italics* with the words from the VOCABULARY section.

1. Peripherals such as keyboards, mice, printers, scanners that work on both Mac and PC are *multiplatform*.
2. With a wide spread of handheld devices, programs *with small memory footprints* are required.
3. His answer demonstrated a complete *absence* of understanding of the question.
4. She *coped with* many *obstacles* to get where she is today.
5. Exploring these asteroids may help *discover* the secrets of early solar system.
6. The grant is available to small and medium-sized *businesses*.
7. Manual testing is a *laborious* process that is prone to errors.
8. Do you have an *updated* version of the system?

**4. Match the words and word-combinations that go together in the text.**

- |                                    |                                    |
|------------------------------------|------------------------------------|
| 1. to take advantage               | a. through app marketplaces        |
| 2. to save a considerable          | b. quality assurance process       |
| 3. to deploy                       | c. across multiple platforms       |
| 4. to ensure                       | d. of native APIs                  |
| 5. a finely-tuned                  | e. a mobile web browser            |
| 6. to run                          | f. a specific programming language |
| 7. to access through               | g. to another platform             |
| 8. to function                     | h. to native code                  |
| 9. to pass a stricter              | i. amount of coding time           |
| 10. to convert and optimize an app | j. fast performance                |
| 11. to compile cross-platform code | k. on a mobile device              |
| 12. to code in                     | l. user interface                  |

**5. Make three sentences with any word combinations from Exercise 4.**

**6. Develop the ideas about Mobile application development with the help of the Mind Map. Follow the [LINK](#).**

**7. Make a short summary of the text.**

**LANGUAGE FOCUS** \_\_\_\_\_

**REPORTED SPEECH**

**Consult grammar rule using the [LINK](#).**

**1. Choose the correct verb form to complete the sentence.**

1. 'I commute 45 minutes to work.' → She told me that she \_\_\_\_\_ 45 minutes to work.
  - a. has commuted
  - b. commuted
  - c. had commuted
2. 'My best friend at university became a tester first, then an Android developer.' → He told me that his best friend at university \_\_\_\_\_ a tester first, then an Android developer.
  - a. was becoming
  - b. had become
  - c. has become
3. 'I've written three pages of the report.' → He said that he \_\_\_\_\_ three pages of the report.
  - a. wrote
  - b. was writing

- c. had written
4. 'I wasn't paying attention at the time.' → He said that he \_\_\_\_\_ attention at the time.
- didn't pay
  - hadn't been paying
  - hasn't been paying
5. 'I live in the centre.' → She told me that she \_\_\_\_\_ in the centre.
- has lived
  - had lived
  - lived
6. 'We're meeting Daniel at 9 o'clock.' → She said that they \_\_\_\_\_ Daniel at 9 o'clock.
- were meeting
  - are meeting
  - had been meeting
7. 'She had worked for that university for 40 years when she retired.' → He told me that she \_\_\_\_\_ for that university for 40 years when she retired.
- worked
  - was working
  - had worked
8. 'Alina's arriving today!' → She told me that Alina was arriving \_\_\_\_\_, but I found out the next day that her visit was cancelled.
- today
  - that day
  - ago
9. 'I told Phillip to email you three days ago.' → She said that she told Phillip to email you three days \_\_\_\_\_, but it's been a week now and I still haven't heard.
- then
  - ago
  - before
10. 'I love this movie!' → Mary said she loved \_\_\_\_\_ movie!
- that
  - this
  - there
11. 'We're having a great time here on holiday!' → I got a postcard from my parents – they said they're having a great time \_\_\_\_\_ on holiday.
- then
  - there
  - here

**2. Use the correct form of 'say' or 'tell' in the following sentences.**

- Could you \_\_\_\_\_ me the time, please?
- Who \_\_\_\_\_ that?

3. Do you think he's \_\_\_\_\_ the truth!
4. I didn't hear: what did he \_\_\_\_\_?
5. I \_\_\_\_\_ them I wasn't happy with their work.
6. He \_\_\_\_\_ he wasn't interested in game dev.
7. They \_\_\_\_\_ me they were going to the meeting.
8. Would you \_\_\_\_\_ them to come early tomorrow?
9. Did you \_\_\_\_\_ anything to him about your promotion at work?
10. Oleg \_\_\_\_\_ he'd be able to help me with English the next day.
11. She \_\_\_\_\_ me she didn't agree.
12. Alex \_\_\_\_\_ he will participate in this project.

**3. Put the following into indirect speech making the necessary changes.**

1. 'Oh, hi, Ethan! I'm just leaving, unfortunately,' Jack said.
2. 'The journey will take about an hour,' the taxi driver told us.
3. 'You have an appointment at ten,' John's secretary reminded him.
4. 'I don't know what you're talking about,' Mary said.
5. Ivan told me, 'I've already checked all the emails.'
6. 'Chelsea lost the game two days ago,' he said.
7. 'I'll come with you as soon as I'm ready,' she replied.
8. Peter told me, 'I attended Professor Jonson's lecture yesterday.'
9. He said, 'I've spoken to the manager about the project.'

**4. Choose the correct answer to complete the sentence.**

1. 'Where will you stay?' → I asked her \_\_\_\_\_.
  - a. if she would stay
  - b. where would she stay
  - c. where she would stay
2. 'How often do you take a taxi?' → She wanted to know \_\_\_\_\_.
  - a. how often I took a taxi
  - b. how I took often a taxi
  - c. how often did I take a taxi
3. 'What were you doing at the time?' → She asked me \_\_\_\_\_.
  - a. what had I been doing at the time
  - b. what I'd been doing at the time
  - c. what was I doing at the time
4. 'Did you meet each other at university?' → He asked them \_\_\_\_\_.
  - a. if did they meet at university
  - b. had they met at university
  - c. if they'd met at university
5. 'Who else have you told?' → They asked me \_\_\_\_\_.
  - a. who else we'd told
  - b. if have we told

- c. who had we told else
6. 'Were you listening to me?' → She asked us \_\_\_\_\_.
    - a. why we'd been listening to her
    - b. whether we'd been listening to her
    - c. if we were listening to her
  7. 'What about having the meeting next Tuesday?' → She suggested \_\_\_\_\_.
    - a. about having the meeting the following Tuesday
    - b. having the meeting the following Tuesday
    - c. to have the meeting the following Tuesday
  8. 'What can we do about this?' → We wanted to know \_\_\_\_\_.
    - a. whether we could do about it
    - b. what could we do about it
    - c. what we could do about it
  9. 'Had you already met him?' → She asked me \_\_\_\_\_.
    - a. whether had I already met him
    - b. if I already met him
    - c. if I'd already met him

**5. Put the following into indirect speech.**

1. 'Are you OK?' he asked me.
2. 'Have you done this sort of work before?' the HR manager wanted to know.
3. 'What's your telephone number, please?' the receptionist asked.
4. 'Where are you going for your summer holidays?' I asked him.
5. 'How much will it cost?' the customer wanted to know.
6. 'Where were you last night, Mr. Smith?' he wondered.
7. 'Are you leaving today or tomorrow morning?' the secretary asked me.
8. 'Have you booked a meeting room?' the manager asked Julia.
9. 'Igor, can you write a short report about our new project?' the team lead asked.
10. 'When did you show the customer the updated version?' I asked Anton.

**6. Complete the sentences with the most suitable reporting verbs from the box.**

**suggested, told, offered, advised, invited, agreed, apologized, insisted**

1. 'All right, if you really need to, you can hand in your essays on Monday.' = The professor \_\_\_\_\_ to give the students an extra weekend to write their essays.
2. 'We must cut spending this year by at least 5 %. That's my decision.' = The CEO \_\_\_\_\_ on cutting spending by minimum of 5 per cent.
3. 'I can give you a lift to the airport if you like.' = My friend \_\_\_\_\_ to drive me to the airport.
4. 'Why don't you come and visit us next week?' = She \_\_\_\_\_ us to come and visit them next week.
5. 'Don't close the window!' = I \_\_\_\_\_ him not to close the window.

6. 'I'm so sorry I missed your birthday.' = She \_\_\_\_\_ for missing my birthday.
7. 'I don't think it's a good idea to buy this expensive equipment.' = He \_\_\_\_\_ us not to buy this this expensive equipment.
8. 'We could ask Andi for some ideas.' = Daniel \_\_\_\_\_ asking Andi for some ideas.

**7. Choose the correct option to complete the sentences.**

1. 'I'm definitely going to the meeting. I really need to be there' → He insisted on \_\_\_\_\_ to the meeting.
- to go
  - going
  - go
2. 'I won't do it again!' → He promised \_\_\_\_\_ it again.
- not doing
  - not do
  - not to do
3. 'I really must know what's going on here' → Chris demanded \_\_\_\_\_ what was going on there.
- knew
  - knowing
  - to know
4. 'Don't drive too close to the car in front,' the instructor said. → The instructor warned me \_\_\_\_\_ too close to the car in front.
- not to drive
  - not driving
  - no drive
5. 'Oh, by the way, we saw Julia at the conference.' → They mentioned \_\_\_\_\_ Julia at the conference.
- to see
  - seeing
  - had seen
6. 'I didn't lock the door.' → Terry admitted \_\_\_\_\_ the door.
- not lock
  - not to lock
  - not locking

**8. This is a letter that Edward wrote to a language school three years ago. Summarize what Edward said in his letter. Rewrite the letter using reporting verbs and the rules for tense forms in Reported Speech.**

***Example:***

Edward said that when he was 21, .....



I am 21 years old and I am at university studying engineering. I take my final exams next month and I will finish university in June.

I want to take a year off and travel round the world. I will need to make some money while I am travelling, so I would like to learn to teach English as a second language so that I can make some money while I am abroad. A friend of mine has recommended your course very highly. She also gave me some details, but I would like to ask a few more questions.

What courses do you have in the summer and when do they start? How much do the courses cost? Is there an examination at the end?

I look forward to hearing from you.

Regards,  
Edward Mitchel

**9. In this telephone conversation Jennifer, the receptionist, is passing on a message to a client Paul Brown from Mr. Stivenson, the Project Manager. Read it with your partner and find all indirect statements.**

**Jennifer:** SoftSolutions, Jennifer speaking. How can I help you?

**Client:** Could I please speak with Mr. Stivenson?

**Jennifer:** I'm sorry, Mr. Stivenson is out of the office today. Could I ask your name please?

**Client:** Yes, I'm Paul Brown.

**Jennifer:** Oh, yes, Mr Brown. Mr. Stivenson asked me to pass on a message to you if you called.

**Client:** OK, what's the message?

**Jennifer:** Mr. Stivenson asked me to let you know that the Thursday meeting had been moved to Friday morning at 10 a.m. And he also wanted me to tell you that they had shifted the meeting room from the 8<sup>th</sup> floor to the 9<sup>th</sup>. Mr Stivenson also asked me to remind you to bring six copies of your annual report. He wanted me to stress the urgency.

**Client:** OK, got it. Thanks a lot. Will he be in in the morning tomorrow?

**Jennifer:** Yes, and he wanted you to call him then.

**Client:** I'll do that. Thanks!

**10. Using the information from exercise 9 rewrite the indirect statements into direct ones.**

**Mr. Stivenson:** Hi, Jennifer. Can you help me prepare some things for the next week.

**Jennifer:** OK, certainly. What can I help you with?

**Mr. Stivenson:** I'd like ..... to Paul Brown if.....

**Jennifer:** Yes, of course. What's the message?

**Mr. Stivenson:** Let him know ..... Also, will you tell .....

Next, please remind ..... It's very ..... And finally, ask .....

**Jennifer:** Sure, no problem. I'll .....

## 11. Correct the mistakes if necessary.

1. On Tuesday, my boss said I can take Friday off, but he changed his mind today for some reason.
2. The receptionist said that Mr. Grant won't be back in the office until tomorrow morning.
3. Phillip said that he has to get up at five thirty every day.
4. Did Ms. Morgan say why she'd called?
5. Paul said that he emailed the client two days ago.
6. I asked them when they had last been on holiday.
7. He said that he wants to clarify some points concerning the app design.
8. I answered that I was planning to study C#.
9. The HR manager asked Katie what did she know about their company.
10. They wondered what I did in my last job.

## SPEAKING

### Job Interview

#### Start-up

Have you ever had an interview of any kind?  
How did you feel?

Do you think you have to get prepared for a job interview?



#### 1. Read the statements and note your opinion in the table.

It's a good idea to	Yes	Probably	No
1. ... do some research on the company and the job before the interview.			
2. ... contact the interviewer on social media before the interview.			
3. ... dress smartly and arrive early.			
4. ... ask a lot of questions in the interview.			
5. ... express strong opinions in the interview.			

**2. With a partner, compare your opinions on the statements in Exercise 1. Give reasons. Use these phrases.**

I really do think  
 I think  
 I tend to think  
 I don't think  
 I really don't think

it's a good idea to ..., because ...

**3. Jessica is a candidate for a job as a management trainee with Facebook. Listen to Part 1 of her interview and answer the questions.**

1. Which five adjectives describe her character?

demanding	hard-working	loyal
ambitious	flexible	shy
tolerant	generous	pessimistic

2. What opinions does Jessica disagree with?  
 3. What two opinions does Jessica partially agree with?

**4. Listen to Part 1 again and complete the chart with useful expressions below.**

Useful expressions (Part 1)	
Discussing objectives	Agreeing and disagreeing
<ul style="list-style-type: none"> <li>- Why do you want to work for Facebook?</li> <li>- Why did you _____ for this job?</li> <li>- _____ to be part of that.</li> <li>- I'd _____ to help the company to _____.</li> <li>- I _____ to gain business _____.</li> <li>- I _____ to be in my first management position.</li> </ul>	<ul style="list-style-type: none"> <li>- I (completely) agree (with you).</li> <li>- I'm sorry, I _____ agree with that.</li> <li>- I'm afraid I don't completely agree.</li> <li>- I agree with you up to a _____.</li> <li>- Perhaps you're _____, but ...</li> </ul>

**5. In small groups, discuss these subjects. Take turns to disagree with everything the others say. Use the expressions for agreeing and disagreeing from the box in Exercise 4.**

1. how to find your dream job;
2. how to make a good first impression;
3. how to have a successful career;
4. how to get rich quickly.

**6. Listen to Part 2 of Jessica's interview. Complete the sentences.**

1. Jessica is \_\_\_\_\_ at \_\_\_\_\_ her \_\_\_\_\_. She's a very \_\_\_\_\_ person.
2. Her weaknesses are that she is sometimes \_\_\_\_\_ when \_\_\_\_\_ and she's not very good at \_\_\_\_\_.
3. Jessica doesn't enjoy doing things \_\_\_\_\_.
4. She enjoys \_\_\_\_\_.

**7. Listen to Part 2 again and complete the chart with useful expressions below.**

Useful expressions (Part 2)
Discussing skills and qualities
What are your _____ and weaknesses? I'm quite good _____ managing my work. My friends _____ I'm never _____. I don't enjoy _____ things at the last minute. Do you have any weaknesses you'd like to _____? How _____ are your _____ skills? I really enjoy _____ with people. I'm not very _____ at public _____. I took a _____ last month, and I'm _____!

**8. Tell your partner about your skills in these areas. Give reasons.**

- |  |   |
|--|---|
| 1. programming languages<br>2. leadership<br>3. negotiating<br>4. presenting | 5. problem solving<br>6. project management<br>7. time management<br>8. foreign languages |
|--|---|

**Example:**

- *I'm (quite) good at languages. I speak English, Spanish and a little Chinese. I'm not (very) good at writing in foreign languages, though.*
- *I enjoy speaking languages because I like travelling and meeting people. I don't enjoy writing them because it's more difficult for me.*

**9. With a partner, make your own dialogues using Useful expressions from the interview. Develop the situations below.**

1. an interview for a job with Twitter
2. an interview for a job in Customer service
3. an interview for an internship with an international non-governmental organization
4. an interview for a job in Information Technology Helpdesk

Use the instructions below.

Student A: interviewer	Student B: interviewee
1. Explain the objective of the interview. Ask about B's professional objectives.	2. Explain your objectives.
3. Give a negative opinion.	4. Disagree politely. Give a different opinion.
5. Agree partially. Ask about B's strengths and weaknesses.	6. Describe your strengths and weaknesses.
7. Ask about B's communication / language / computer / management skill.	8. Talk about your skills.
Thank B and close the interview.	

## WRITING

---

### Placement Report (Part 2)

Jason has just completed a placement at Diftco, an exporter of construction equipment in Birmingham, UK. He is talking to his friend Alex.

**1. Listen to the conversation several times and take notes about Jason's placement to get ready for writing his placement report.**

**2. Study the notes taken by Jason himself. Then organize your notes from Task 1 and Jason's notes below into the five placement report sections listed in the previous unit.**

- good rapport with export staff, warehouse staff more difficult
- equipment assembled and packed in warehouse
- double-check information - very important lesson!
- waste problem in warehouse - don't recycle enough
- remember to attach daily journal - journal.doc
- one of most profitable firms in region
- learnt bar code system - interesting
- too much routine paperwork - very boring!
- copies of letters to and from Ms Witten, supervisor
- most of time in Export Office, also checking containers in warehouse
- very tiring - need a holiday now!

**3. Now, write a placement report as if you were Jason. Remember to use more formal language. The questions to each of the sector and some prompts will help you.**



## **Introduction**

Where were you employed? (company's name, type, place)  
What was the objective of the internship? (management experience)



## **Experience during work placement**

What department did you work for?  
What were you in charge of?  
What did you learn there?  
What was the most valuable lesson you learnt?  
What happened?



## **Observations about the company**

What is the company like? (successful, well-organized)  
What are the staff like? (very motivated, hardworking)  
Which area of company's activity leaves room for improvement?  
What can be done to improve the situation and to solve the problem?



## **Professional achievements and conclusions**

What course at university helped you to understand how the company worked?  
What effect did it have on your work in the company?  
Was the internship a positive experience?  
Did you gain significant experience?  
Did you fulfil the objective of the internship? Why? or Why not?  
Who would a placement at Diftco valuable for?



## **Appendix**

What is enclosed with the report?

## **LISTENING**

---

### *How to Build Progressive Web Apps*

### **SETTING THE CONTEXT**

1. Which mobile apps do you have installed on your device from the list below?

AliExpress  
Pinterest  
Twitter Lite

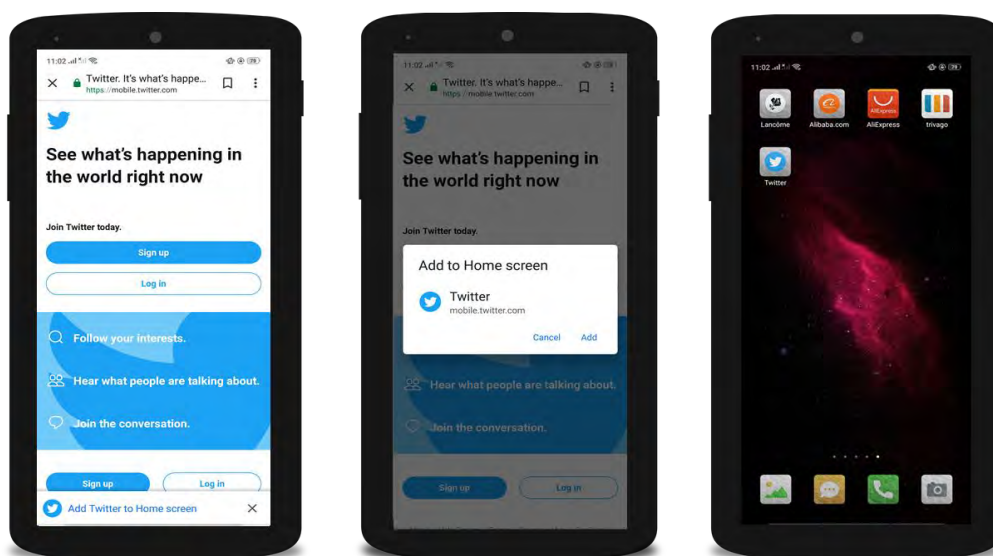
Gmail  
Spotify  
Starbucks

Google Maps Go  
Telegram  
Uber

2. How do you usually open these apps on your device?
3. Do you agree that these applications deliver native-like experience?
4. These apps take advantage of both web and native app features. What are these apps called?

Many businesses have adopted this advanced web technology and gained tremendous success.

The process of installing a progressive app is shown below.



## ACTIVATING VOCABULARY

### 1. Match the words with their Russian equivalents.

1. to combine	a. оболочка
2. to configure	b. корневой каталог
3. to cache	c. объединять, соединять
4. SSL (Secure Sockets Layer)	d. мгновенно
5. shell	e. уведомления, которые приходят прямо на рабочий стол
6. reliably	f. протокол защищенных подключений
7. push notifications	g. подсказывать
8. root directory	h. надежно
9. thread	i. сохранить в сверхоперативной памяти
10. instantly	j. поток выполнения
11. to prompt	k. настроить

## 2. Match the words having a similar meaning.

1. to configure	a. immediately
2. benefit	b. to check
3. currently	c. to happen
4. to combine	d. to adjust
5. instantly	e. apart
6. to audit	f. advantage
7. separately	g. nowadays
8. to occur	h. to join

**Before proceeding to LISTENING COMPREHENSION section, please follow the [LINK](#) to watch the video.**

### *LISTENING COMPREHENSION*

**1. Choose the best answer to these questions. Sometimes more than one correct option is possible.**

1. A progressive web application functions \_\_\_\_\_.
  - a. on air
  - b. on a web browser
  - c. offline
2. The benefits of PWAs include \_\_\_\_\_.
  - a. user-like behavior
  - b. mobile-like behavior
  - c. network independence
  - d. the need to update an app manually
3. Just like with regular mobile apps, PWAs can also access \_\_\_\_\_.
  - a. user's sensitive data
  - b. device hardware features
  - c. system settings
4. The users of your PWA will feel more secure if they see \_\_\_\_\_ in the address bar.
  - a. HTTP
  - b. HTTPS
  - c. TCP / IP
5. The first thing the users see after downloading a PWA is \_\_\_\_\_.
  - a. the application form
  - b. the application code
  - c. the application shell
  - d. the application process
6. What gives your web app a more native-like feel?
  - a. A Service Worker
  - b. HTML



- c. A Web App Manifest
- d. The Install Prompt
- 7. The users' browser will prompt them \_\_\_\_\_.
  - a. to configure an install prompt
  - b. to install the app to their home screen
  - c. to audit PWA features
  - d. to improve the app performance
- 8. Lighthouse is \_\_\_\_\_.
  - a. a PWA analysis tool by Apple
  - b. a JS file
  - c. an app audit tool by Google
- 9. Many companies utilize a PWA technology \_\_\_\_\_.
  - a. to improve app performance
  - b. to increase user engagement
  - c. to lower mobile app installations
  - d. to decrease click-through rate

**2. Match the words that go together in the video.**

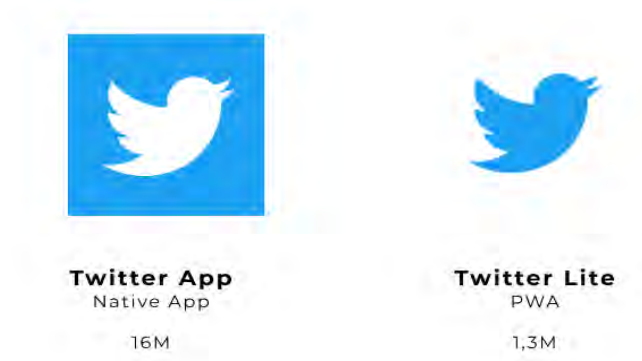
1. to offer mobile	a. offline
2. to look and	b. instantly on users' screens
3. to download a PWA	c. in mind
4. to load reliably and	e. to native apps
5. available	f. progressive web app features
6. similar	g. from Google Play
7. to audit	h. experience
8. to keep	i. feel like a regular app

**3. Discuss the following questions.**

1. What technologies does a progressive web application combine?
3. What are the benefits of progressive web apps?
4. What benefits of website functionality and mobile apps do PWAs receive?
5. How can a PWA be installed?
6. What device hardware features can a PWA access?
7. What is the function of SSL?
8. What does an application shell ensure?
9. What web technologies are used to make up an application shell?
10. What is a service worker?
11. What is the function of a service worker?
12. What component should developers include into the app to give users the possibility of installing it?
13. What is the function of a manifest file?
14. What do developers need to configure?

15. What progressive app features does Lighthouse audit?
16. How can you characterize progressive web apps according to the video?

**4. Compare these apps. Which app would you give a chance on the Home Screen of your mobile device? Why?**



5. Make a plan that outlines the main points of the video.
6. Summarize the main content of the video in 10-12 sentences using the plan.

## REFERENCES

1. Allison, J. The Business 2.0 B1: Pre-Intermediate : Student's Book / J. Allison, P. Emmerson. – Macmillan Education : Macmillan Publishers Limited, 2014. – 176 p.
2. Allison, J. The Business 2.0 B1+: Intermediate : Student's Book / J. Allison, P. Emmerson. - Macmillan Education : Macmillan Publishers Limited, 2013. – 160 p.
3. Chapman, R. English for Emails : Student's Book / R. Chapman. – Oxford : Oxford University Press, 2008. – 64 p.
4. Demetriades, D. Information Technology Workshop / D. Demetriades. – Oxford : Oxford Univ. Press, 2010. – 39 p.
5. Emmerson, P. Email English / P. Emmerson. – Macmillan Education : Macmillan Publishers Limited, 2008. – 96 p.
6. Evans, V. Career Paths: Information Technology / V. Evans, J. Dooley, S. Wright. – Express Publishing, 2014. – 40 p.
7. Evans, V. New Round-Up 6 Student's Book / V. Evans, J. Dooley. – Pearson Education Limited, 2015. – 256 p.
8. Glendinning, E. H. Oxford English Information Technology Student's Book / E. H. Glendinning, J. McEvan. – 2nd ed. – Oxford : Oxford Univ. Press, 2011. – 222 p.
9. Glendinning, E. H. Technology 1 Student's Book / E. H. Glendinning, A. Pohl. – Oxford : Oxford Univ. Press, 2012. – 135 p.
10. Glendinning, E. H. Technology 2 Student's Book / E. H. Glendinning, A. Pohl. – Oxford : Oxford Univ. Press, 2012. – 135 p.
11. Koester, A. Business Advantage : Intermediate : Student's Book / A. Koester, A. Pitt, M. Handford, M. Lisboa. - Cambridge University Press, 2012. – 192 p.
12. Loughheed, L. Business Correspondence: A Guide to Everyday Writing: Intermediate / L. Loughheed. -2nd ed. – Pearson Education Limited, 2002. – 150 p.
13. Redston, Ch. Face to Face : Pre-Intermediate : Student`s Book / Ch. Redston, G. Cunningham. – 2nd ed. - Cambridge University Press, 2012. – 170 p.
14. Apple Inc. // Britannica [Электронный ресурс]. – Режим доступа: <https://www.britannica.com/topic/Apple-Inc>
15. BBC [Электронный ресурс]. – Режим доступа: <http://www.bbc.co.uk/education>
16. Database Management System [Электронный ресурс]. – Режим доступа: <https://searchsqlserver.techtarget.com/definition/database-management-system>
17. Game Development [Электронный ресурс]. – Режим доступа: <https://guide.freecodecamp.org/game-development/>
18. Google // Britannica [Электронный ресурс]. – Режим доступа: <https://www.britannica.com/topic/Google-Inc>
19. Hybrid App Development – All You Need To Know // Rishabh Software [Электронный ресурс]. – Режим доступа: <https://www.rishabhsoft.com/blog/hybrid-mobile-app-development>
20. Introduction to Algorithms [Электронный ресурс]. – Режим доступа: <https://mitpress.mit.edu/books/introduction-algorithms-third-edition>
21. Image Recognition [Электронный ресурс]. – Режим доступа: <https://sightcorp.com/knowledge-base/image-recognition/>

22. Laptop Parts: Names and Functions // Tech with tech [Электронный ресурс]. – Режим доступа: <https://techwithtech.com/laptop-parts/>
23. Learning About Operating Systems // english4it [Электронный ресурс]. – Режим доступа: <https://www.english4it.com/module/core/unit/3/reading>
24. Learnenglish.britishcouncil [Электронный ресурс]. – Режим доступа: <https://learnenglish.britishcouncil.org>
25. Longman Dictionary of Contemporary English / Pearson Education Limited, 2007. – 1949 p.
26. Microsoft Corporation // Britannica [Электронный ресурс]. – Режим доступа: <https://www.britannica.com/topic/Microsoft-Corporation>
27. Mobile Application Development // IBM [Электронный ресурс]. – Режим доступа: <https://www.ibm.com/cloud/learn/mobile-application-development-explained>
28. What is a Mobile Device? // Lifewire [Электронный ресурс]. – Режим доступа: <https://www.lifewire.com/what-is-a-mobile-device-2373355>
29. Robotics // builtin [Электронный ресурс]. – Режим доступа: <https://builtin.com/robotics>
30. The different types of software testing // Atlassian [Электронный ресурс]. – Режим доступа: <https://www.atlassian.com/continuous-delivery/software-testing/types-of-software-testing>
31. Web Development // techopedia [Электронный ресурс]. – Режим доступа: <https://www.techopedia.com/definition/23889/web-development>
32. What is Algorithm // edraw [Электронный ресурс]. – Режим доступа: <https://www.edrawsoft.com/algorithm-definition.html>
33. What is Artificial Intelligence? All You Need to Know About AI // clario [Электронный ресурс]. – Режим доступа: <https://clario.co/blog/what-is-artificial-intelligence/>
34. What is a Native Mobile App Development? // mDevelopers [Электронный ресурс]. – Режим доступа: <https://mdevelopers.com/blog/what-is-a-native-mobile-app-development->
35. What is a Video Programmer // wisegeek [Электронный ресурс]. – Режим доступа: <https://www.wise-geek.com/what-is-a-video-programmer.htm>
36. What is Game Development // freeCodeCamp [Электронный ресурс]. – Режим доступа: <https://www.freecodecamp.org/news/what-is-game-development/>
37. What Is the Relationship between Internet and Computer Security? // wisegeek [Электронный ресурс]. – Режим доступа: <http://www.wisegeek.net/what-is-the-relationship-between-internet-and-computer-security.htm>
38. Митрошкина, Т.В. Английский язык: полный курс подготовки к централизованному тестированию и экзамену / Т.В. Митрошкина. – Минск: Тетралит, 2013. – 512 с.