

## **Types of software**

Software is a set of instructions that tells a computer how to perform specific tasks. Without software, computer hardware would be useless, because it could not process data or perform any operations. There are several main types of software, each serving a particular purpose. The most common categories are system software, application software, and development software.

### **1. System Software**

System software controls and manages the basic functions of a computer. It serves as a bridge between the user, the hardware, and other programs. The most important example of system software is the operating system (OS), such as Windows, macOS, Linux, or Android. The OS manages memory, files, devices, and the overall performance of the computer.

Another kind of system software includes utility programs. Utilities perform specific maintenance tasks that help the computer run smoothly, such as disk cleanup, antivirus scanning, or file compression. Without system software, the computer could not operate or run other applications.

### **2. Application Software**

Application software allows users to perform specific tasks or solve particular problems. These programs are designed for end users rather than for controlling the computer system itself.

There are many types of application software, for example:

Productivity software – such as Microsoft Office, Google Docs, or Excel, which help users create documents, presentations, and spreadsheets.

Media software – like Adobe Photoshop, VLC Player, or Audacity, used for editing images, videos, and sound.

Communication software – such as Zoom, Skype, and Microsoft Teams, which allow people to communicate and collaborate online.

Business software – like ERP (Enterprise Resource Planning) systems, which help organizations manage finances, production, and human resources.

Educational software – including e-learning platforms such as Duolingo, Moodle, or Khan Academy, which help students learn new skills.

Application software can be installed on a computer or accessed online through cloud-based services. Modern applications often work on both desktop and mobile devices.

### **3. Development Software**

Development software, also known as programming software, is used by developers to create new programs and applications. It includes programming languages, compilers, text editors, and debugging tools. Examples are Visual Studio, Eclipse, and PyCharm.

Developers write code in languages like Python, Java, C++, or JavaScript and use development software to build, test, and debug applications. This type of software is essential for the IT industry because it allows engineers to design and produce all other types of software.

### **4. Embedded Software**

Embedded software is built into devices that are not traditionally considered computers. It controls the functions of machines, sensors, and electronic devices such as washing machines, cars, medical equipment, and industrial robots.

For example, the software in a microwave oven controls heating time and temperature, while software in a car manages fuel injection and safety systems. Embedded software must be reliable and efficient because it often works in real-time conditions and cannot be easily updated.

## 5. Network Software

Network software manages the connection between computers and other devices in a network. It supports data exchange, communication, and internet access.

Examples include network operating systems, firewall software, and network monitoring tools. This type of software ensures that information can move safely and efficiently between systems. Network software is especially important in large organizations that use local area networks (LANs) or cloud computing.

## 6. Security Software

Security software protects computers and networks from viruses, malware, and cyberattacks. It includes antivirus programs, firewalls, encryption tools, and anti-spyware applications.

Modern security software can automatically detect and remove threats, protect user data, and prevent unauthorized access. As cybercrime increases, security software has become a vital part of both personal and professional computing.

## TASKS

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

| Term                    | Definition                                                             |
|-------------------------|------------------------------------------------------------------------|
| 1. System software      | a) Programs that perform specific user tasks like writing or drawing   |
| 2. Application software | b) Software that protects computers from viruses or hackers            |
| 3. Development software | c) Tools that help programmers create and test new applications        |
| 4. Embedded software    | d) Programs built into machines like cars or washing machines          |
| 5. Network software     | e) Software that manages connections and data exchange between devices |
| 6. Security software    | f) The operating system and utilities that make the computer run       |

### 2. Table-filling task

| Type of Software     | Function | Examples | Why it is Important |
|----------------------|----------|----------|---------------------|
| System Software      |          |          |                     |
| Application Software |          |          |                     |
| Development Software |          |          |                     |
| Embedded Software    |          |          |                     |
| Network Software     |          |          |                     |
| Security Software    |          |          |                     |

**3. Answer the questions (3–5 sentences each):**

Which type of software do you use most often in your studies or daily life?

Which type of software do you think is the most complex to develop? Why?