

BASIC OF COMPUTER

CHAPTER 1 PART II

Hardware and Software



Learning Objectives

Differentiate between
hardware and software

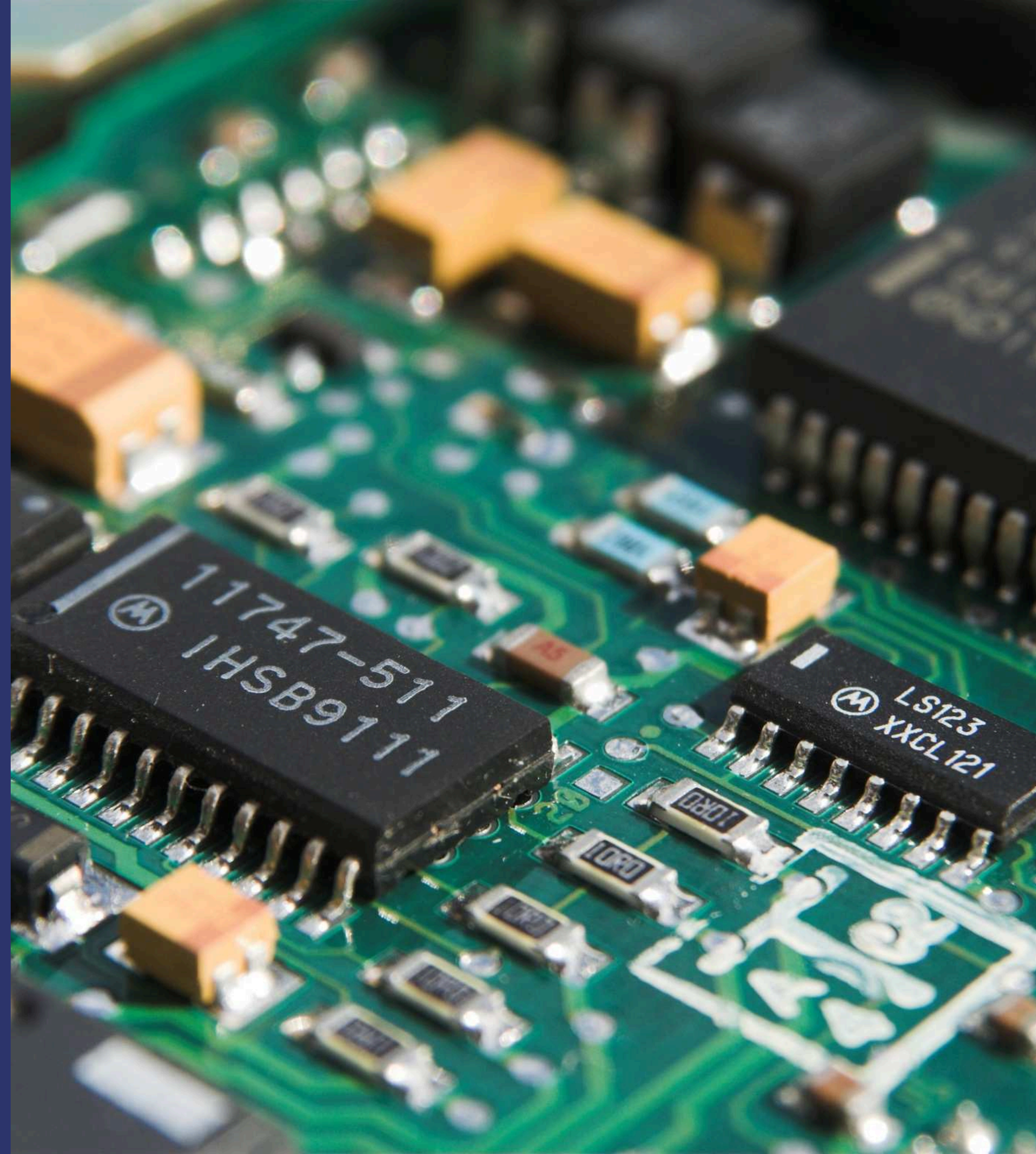
Identify examples of
hardware and software

Understand the roles of
hardware and software

Computer Hardware

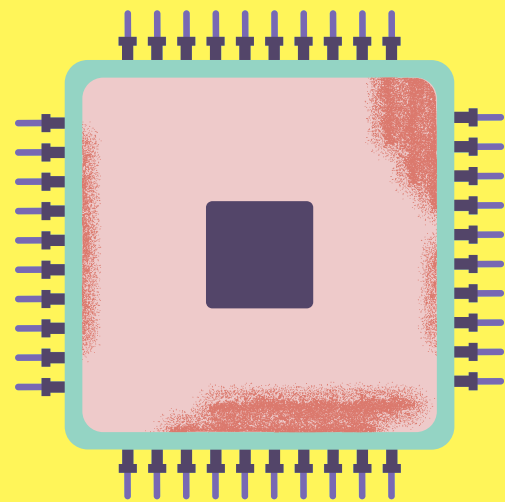
Computer hardware
means the physical
components of a
computer system.

Think of the bits you
can touch!



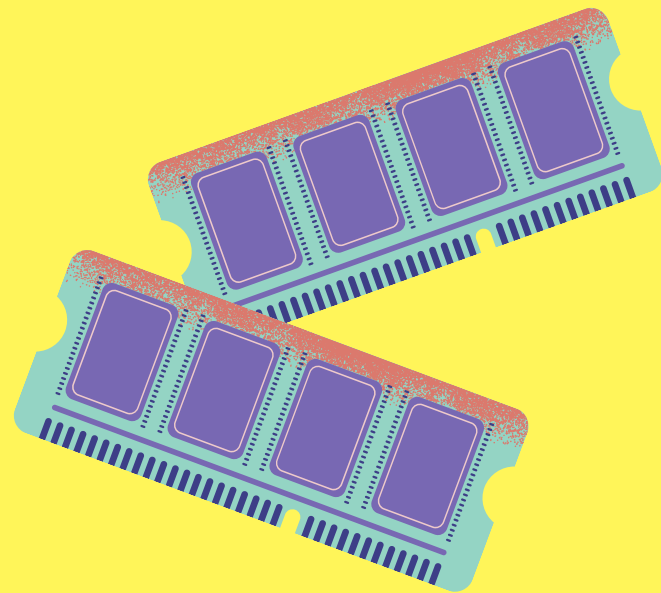
Examples of Hardware

Processor



CPU

Memory



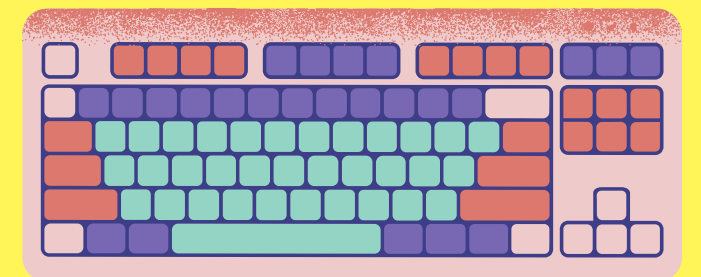
RAM, ROM

Storage



HDD, SSD, USB

Input + Output



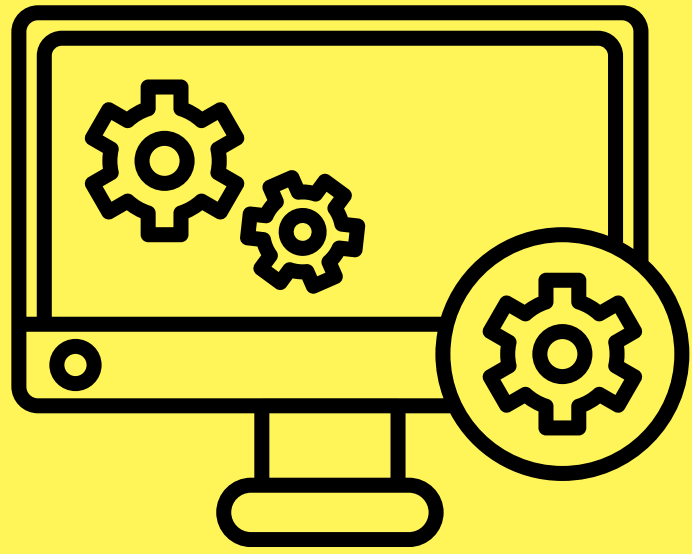
Keyboard,
monitor, etc.

Computer Software

Computer software is the programs and instructions that tell the computer what to do.

You can't touch software!





Examples of Software



Operating systems

Desktop: Windows,
macOS

Mobile: Android, iOS



Utility software

Antivirus programs

Firewalls

Task managers



Application software

Word processors

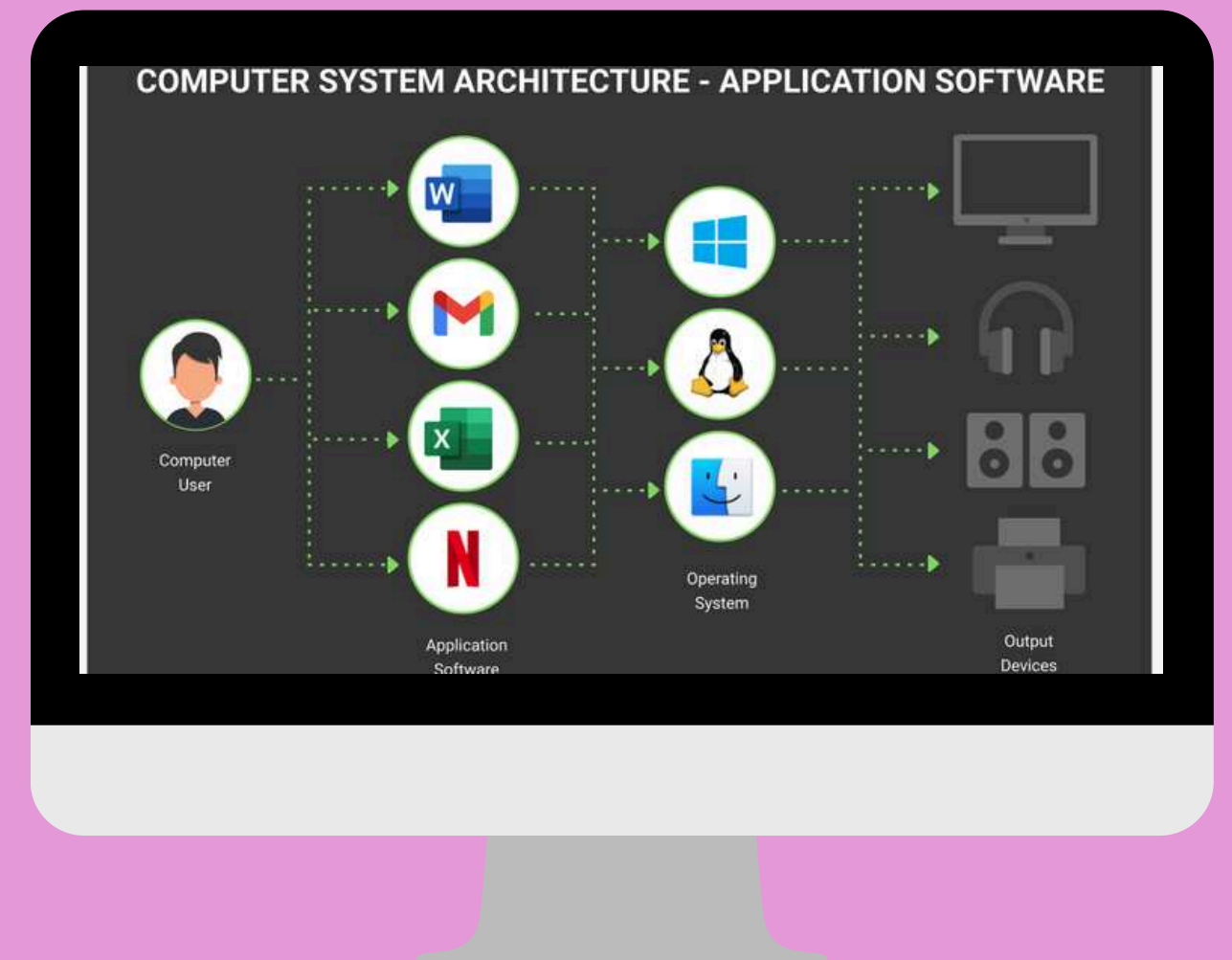
Web browsers

Games



Software and Operating Systems

Software is a set of instructions that tells the computer what to do. The operating system (OS) is a critical piece of software that manages hardware resources and provides common services for computer programs.





- Education

- Business



Modern Uses of Computers



- Healthcare

- Entertainment



Drag and drop the components into the correct category.

Hardware

Software

RAM

Chrome

Windows

Norton

Printer

Minecraft

USB drive

Photoshop

CPU

Keyboard

Android

Router

Drag and drop the components into the correct category.

Hardware

CPU

RAM

Router

Printer

Keyboard

USB drive

Chrome

Android

Windows

Photoshop

Minecraft

Norton

Software



COMPUTER SYSTEMS

Multiple Choice Quiz



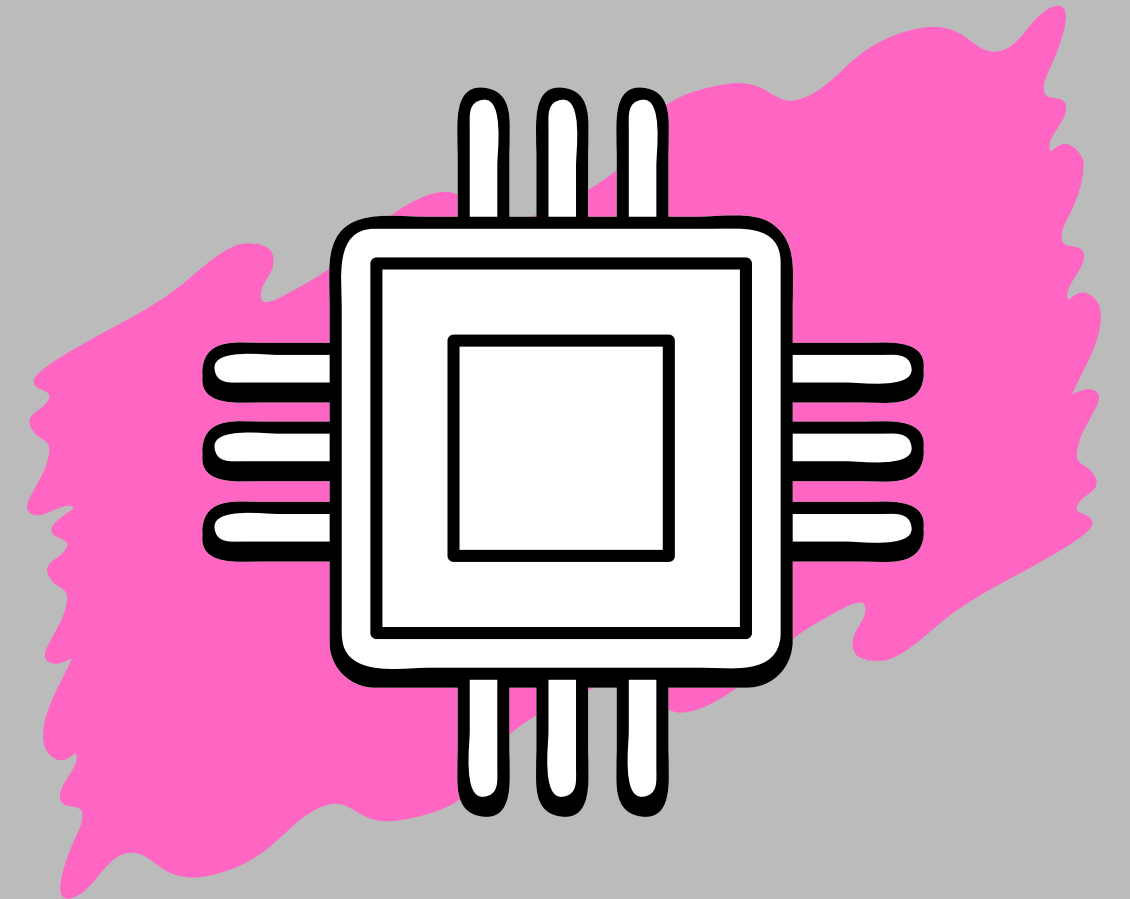
What does CPU stand for?

A Computer Program Utility

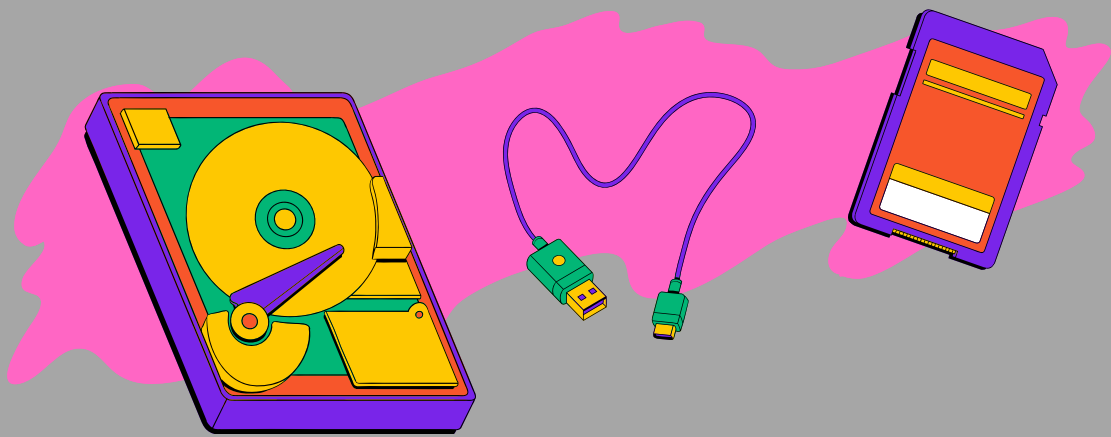
B Central Processing Unit

C Central Power Unit

D Computer Processing Utility



Question 2



Which of the following is a primary storage device?

A Hard Disk Drive (HDD)

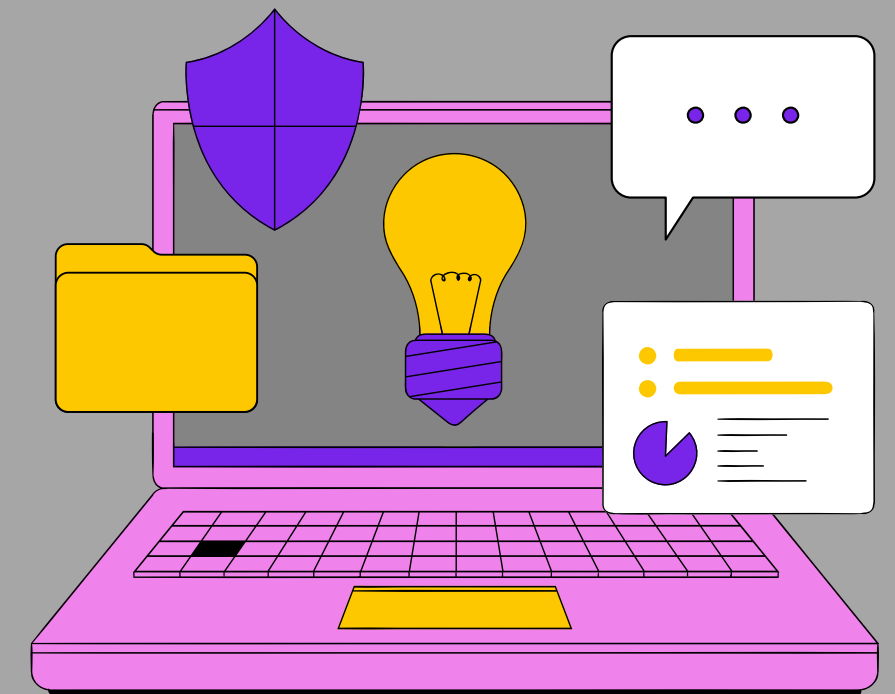
B Random Access Memory (RAM)

C Flash Drive

D External Hard Drive

What is the purpose of the BIOS?

- A** To store data permanently
- B** To control the flow of data between CPU and memory
- C** To load the operating system into RAM during boot-up
- D** To process graphical data





Which of the following is an example of an input device?



A

Printer

B

Monitor

C

Keyboard

D

Speaker

What is the function of the operating system?

A To manage hardware resources and provide a user interface

B To perform arithmetic and logical operations

C To control the execution of software programs

D To store and retrieve data



Which of the following is NOT a type of secondary storage?

A CD-ROM

B Cloud storage

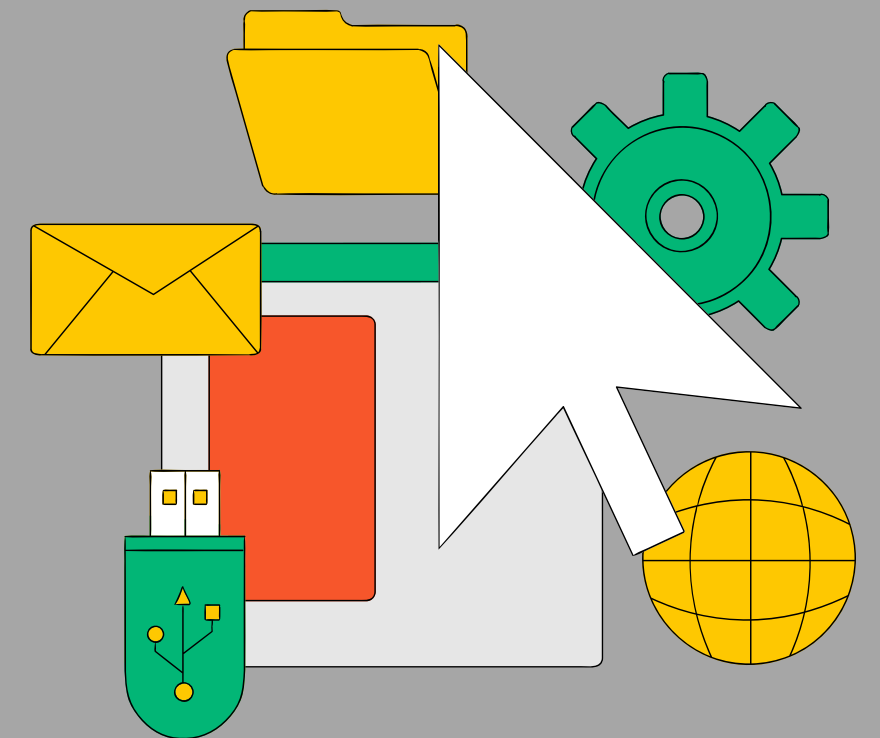
C RAM

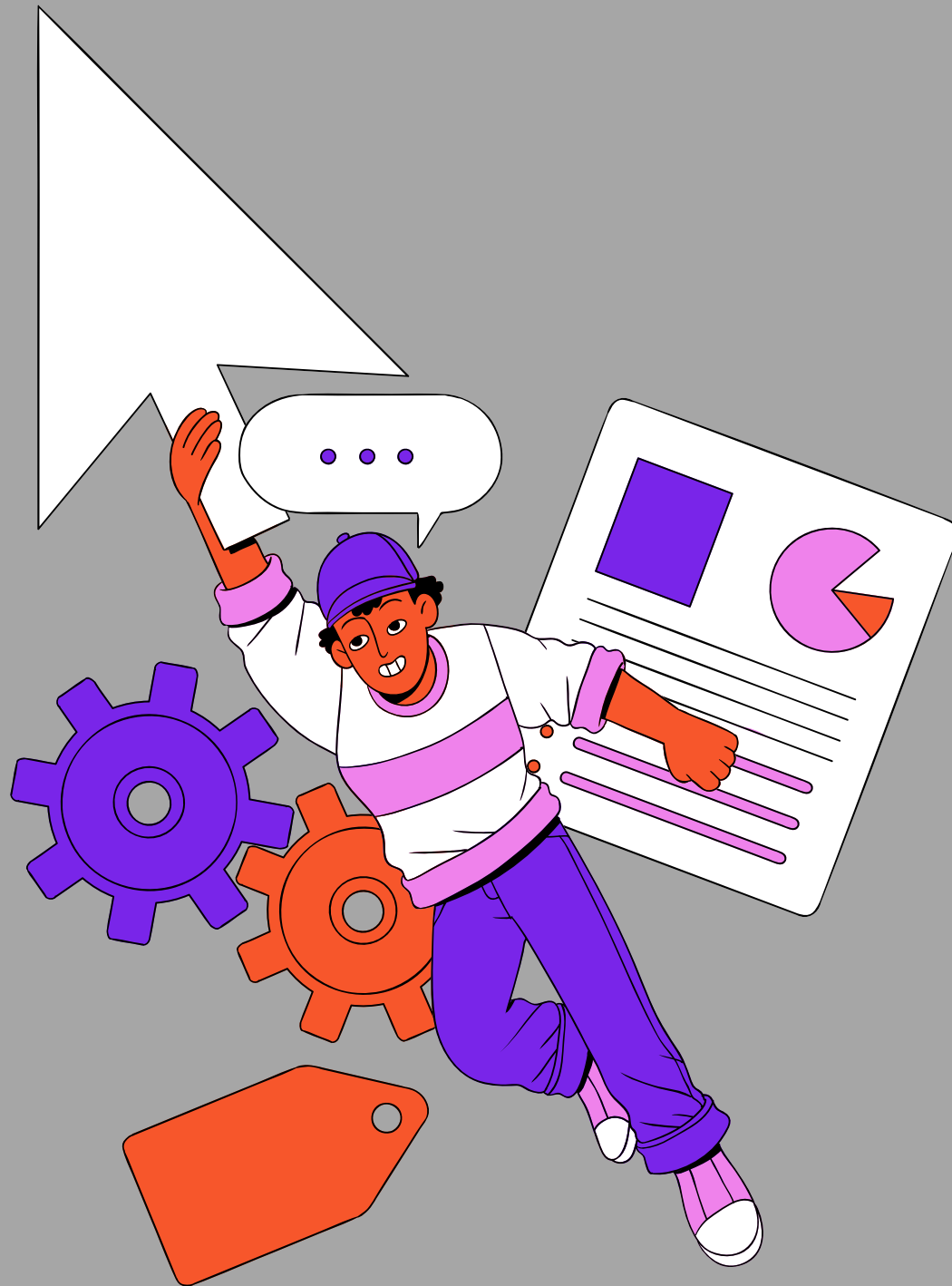
D Hard Drive (HDD)



What is the purpose of cache memory?

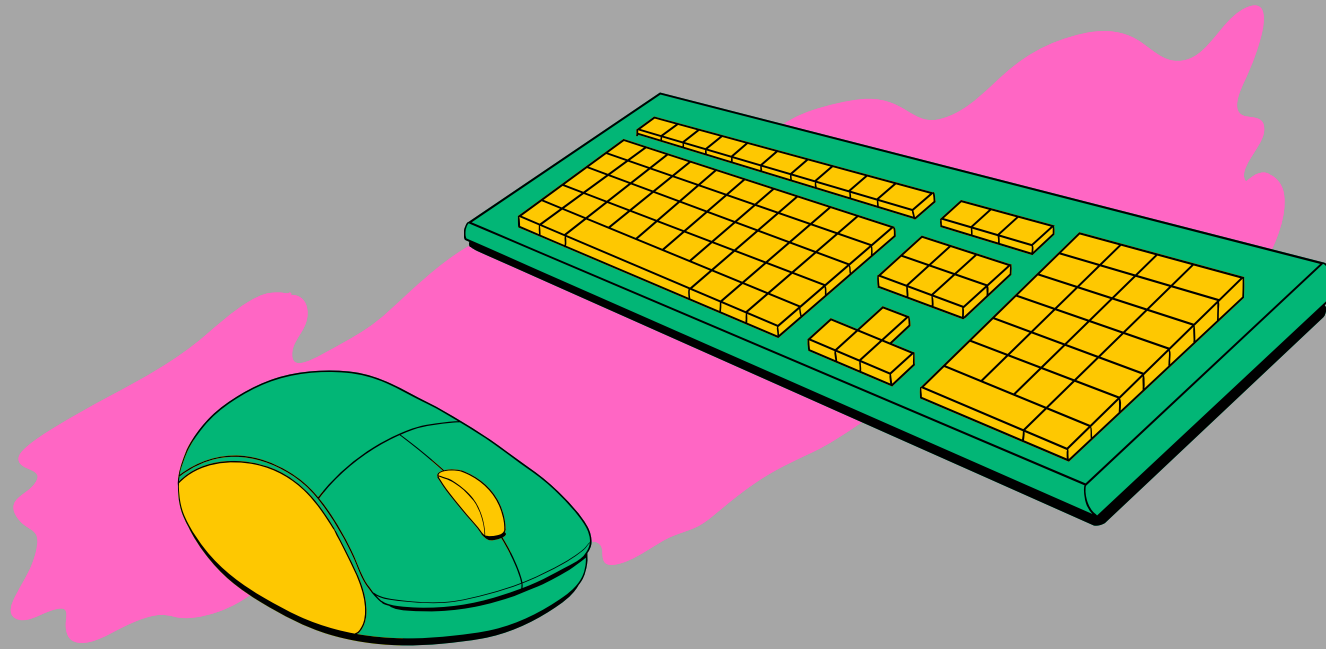
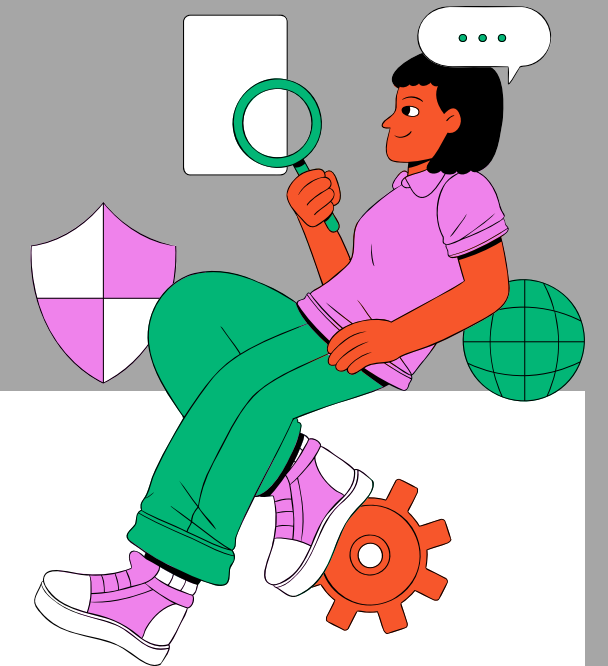
- A** To store frequently accessed data for quicker access
- B** To provide permanent storage for the operating system
- C** To display graphics on the screen
- D** To control the flow of electricity in the computer





What is the role of the GPU?

- A** To perform calculations for graphics rendering
- B** To manage network connections
- C** To control input and output devices
- D** To store data temporarily



What is the purpose of the motherboard?

A

To provide power to the computer components

B

To connect all the internal components of the computer

C

To display images on the screen

D

To execute instructions

Question 10

Which of the following is NOT an example of a high-level programming language?

A Python

B Java

C Assembly Language

D C++



Answers

- 1) **B** Central Processing Unit
- 2) **B** Random Access Memory (RAM)
- 3) **C** To load the operating system into RAM during boot-up
- 4) **C** Keyboard
- 5) **A** To manage hardware resources and provide a user interface
- 6) **C** RAM
- 7) **A** To store frequently accessed data for quicker access
- 8) **A** To perform calculations for graphics rendering
- 9) **B** To connect all the internal components of the computer
- 10) **C** Assembly Language

Choose one hardware component and one software component.

Research why these components are important to a computer.

Hardware

Present your findings here.

Software

Present your findings here.

Choose one hardware component and one software component.

Research why these components are important to a computer.

Hardware

The CPU (Central Processing Unit) is often considered the "brain" of a computer, and it plays a crucial role in its overall performance. The CPU performs the majority of the calculations and executes instructions required for software to run. It carries out tasks such as arithmetic operations, logic operations, and data manipulation. The faster and more efficient the CPU, the quicker it can process these tasks, leading to better overall performance of the computer.

Software

The operating system (OS) is a fundamental component of any computing device, serving as an intermediary between the hardware and software. The operating system manages hardware resources such as the CPU, memory (RAM), disk storage, and peripherals. It allocates these resources efficiently among running applications, ensuring that each application gets the necessary resources to function properly without interfering with others.