

1. Primary components of a computer system Includes: Central Processing Unit (CPU), Memory, Storage (HDD/SSD), Input devices, Output devices, motherboard and Power supply Unit (PSU). Their functions include;

- CPU - Brain of the computer. Executes instructions and processes
- Memory (RAM) : It is volatile and loses data when the power ~~is~~ is off.
- Storage (HDD/SSD) : Long-term data storage for the OS, applications and files.
- Input devices : Used to provide data to the computer. Eg: keyboard, mouse, etc.
- Output devices : Outputs data from the computer. Eg: monitors, speakers, etc.
- Motherboard : Connects all components and facilitates the communication between them.

2. Hardware : Physical components of a computer system, such as the CPU, RAM etc.

Software : A set of instructions or programs that run on the hardware, enabling it to perform tasks, such as operating systems, applications, and games.

Difference : Hardware is tangible, while software is intangible. Hardware performs tasks physically while software provides the instructions for those tasks.

3 - An operating system (OS) manages computer hardware and software resources, providing a user interface and acting as a bridge between applications and hardware. Key responsibilities include:

- Managing memory and processing tasks.
  - Facilitating user input and output
- eg: Windows, MacOS, Linux

#### 4. Volatile Memory

- Data is lost when power is turned off
- Eg: RAM, Cache Memory
- Used for temporary data storage during active processes.

#### Non-Volatile Memory

- Retains data even when power is off
- Eg: Hard Disk Drive (HDD), SSD, ROM, USB drives.
- Used for permanent or long-term data storage.