***COMPUTER APPLICATION***

***DAY-01***

***Basic Design of a Computer***

**Central Processing Unit (CPU)**

The **CPU**, often referred to as the brain of the computer, is responsible for executing instructions and performing calculations. It consists of three main components:

* **Control Unit (CU)**: Manages the execution of instructions by fetching them from memory, decoding them, and coordinating the operation of other hardware components.
* **Arithmetic Logic Unit (ALU)**: Performs arithmetic and logical operations, such as addition, subtraction, multiplication, division, and comparisons.
* **Registers**: Small storage units within the **CPU** that hold data temporarily during processing. These include the program counter, instruction register, and various general-purpose registers.

**Memory**

Memory is used to store data and instructions that the **CPU** needs to access quickly during program execution. There are several types of memory in a computer system:

* **Random Access Memory (RAM)**: Volatile memory used to temporarily store data and program instructions that are actively being used by the **CPU**. **RAM** is fast but loses its contents when the computer is powered off.
* **Read-Only Memory (ROM)**: Non-volatile memory that stores firmware and basic system instructions required for booting up the computer. **ROM** retains its contents even when the power is turned off.
* **Cache Memory**: High-speed memory located close to the **CPU** that stores frequently accessed data and instructions to speed up processing.

**Input/Output Devices**

Input and output devices allow users to interact with the computer and receive information from it. Some common input and output devices include:

* **Keyboard**: Allows users to input text and commands into the computer.
* **Mouse**: Used to navigate graphical user interfaces and interact with on-screen elements.
* **Monitor**: Displays visual output from the computer, including text, images, and videos.
* **Printer**: Produces physical copies of digital documents and images.
* **Speakers**: Output audio from the computer, including music, speech, and system sounds.
* **Storage Devices (e.g., Hard Disk Drive, Solid State Drive)**: Allow for long-term storage of data and programs

THE-END DAY-01