**Familarization of hardware components of a computer**

**CPU:**

The Central Processing Unit (CPU) is the primary component of a computer that acts as its “control center.” The CPU, also referred to as the “central” or “main” processor, is a complex set of electronic circuitry that runs the machine’s operating system and apps. The CPU interprets, processes and executes instructions, most often from the hardware and software programs running on the device.  
  
The CPU performs arithmetic, logic, and other operations to transform data input into more usable information output. While the CPU must contain at least one processing core, many contain multiple cores. A server with two hexa-core CPUs, for example, will have a total of 12 processors.

**VIDEAO CARD**

Alternatively known as a  display,adapter,graphicscardvvideao  is an [expansion card](https://www.computerhope.com/jargon/e/expacard.htm) that connects to a computer motherboard. It is used to create a picture on a [display](https://www.computerhope.com/jargon/d/display.htm); without a video card, you would not be able to see this page. More plainly, it's a piece of [hardware](https://www.computerhope.com/jargon/h/hardware.htm) inside your computer that processes images and video, some tasks normally handled by the [CPU](https://www.computerhope.com/jargon/c/cpu.htm). Video cards are used by gamers in place of integrated graphics due to their extra processing power and [video ram](https://www.computerhope.com/jargon/v/vram.htm).

**RAM:-**

RAM, which stands for Random Access Memory, is a hardware device generally located on the motherboard of a computer and acts as an internal memory of the CPU. It allows CPU store data, program, and program results when you switch on the computer. It is the read and write memory of a computer, which means the information can be written to it as well as read from it. It is an volatile memory

**ROUTER:-**

The router is a physical or virtual internetworking device that is designed to receive, analyze, and forward data packets between computer networks. A router examines a destination IP address of a given data packet, and it uses the headers and forwarding tables to decide the best way to transfer the packets. There are some popular companies that develop routers; such are **Cisco**, **3Com**, **HP**, **Juniper**, **D-Link**, **Nortel**, etc.

**POWER SUPPLY UNIT:-**

PSU stands for Power Supply Unit. It is a hardware component of a computer that supplies the optimum power to internal components of the computer. It converts the high -voltage alternating current (AC) into a steady low-voltage direct current (DC) which is safe for the internal components of the computer. PSU also regulates the voltage to protect the computer from high voltage fluctuations.

**SOUND CARD:-**

Inside the computer, a sound card is an expansion component that is also referred to as a soundboard, audio output device, or audio card. It offers audio input and output capabilities in computers, which can be heard with the help of speakers or headphones. Although it is not necessary for the computer to have a sound card, every machine includes it as either built into the motherboard (onboard) or in an expansion slot. Through a device driver and a software application, sound cards make capable of configuring and utilizing.

Usually, an input device, a microphone, is attached to receive audio data, while speakers or headphones are generally used to output audio data. Most headphones use the size of 3.5 mm minijacks, which are the size of the connector. Through an optical audio port like a Toslink connector or with the help of a standard TRS (tip-ring-sleeve) connection, digital audio input and output are supported by some sound cards. The conversion of incoming digital audio data into analog audio is the primary function of a sound card through which speakers make capable of playing sound. In the reverse case, from the microphone, the analog audio data is converted into digital data by the sound card. These data can be hold on the computer device as well as modified with the help of using audio software.

OPTICAL DRIVE:-

An optical disc is an electronic data storage medium that is also referred to as an optical disk, optical storage, optical media, Optical disc drive, disc drive, which reads and writes data by using optical storage techniques and technology. An optical disc, which may be used as a portable and secondary storage device, was first developed in the late 1960s. James T. Russell invented the first optical disc, which could store data as micron-sized light and dark dots.

An optical disc can store more data and has a longer lifespan than the preceding generation of magnetic storage medium. To read and write to CDs and DVDs, computers use a CD writer or DVD writer drive, and to read and write to Blu-ray discs, they require a Blu-ray drive. MO drives, such as CD-R and DVD-R drives, are used to read and write information to discs (magneto-optic). The CDs, Blu-ray, and DVDs are the most common types of optical media.

BRIDGE:-

A bridge is a networking device that works in both the physical and data link layer in a network. This devices can divide a large network into smaller segments and pass the frames between two originally separated LANs. A bridge maintains a MAC address of various stations attached to it. When a frames enters a bridge, it checks the address contained in the frame and compares it with a table of all the stations on both segments.

SSD:-

SSD is a non-volatile storage device, which stands for Solid State Drive. SSD stores the data on flash memory chips and maintains the data in a permanent state, even when the power is off.

Sometimes, this storage device is also called as a solid-state disk or solid-state device. As compared to electromechanical drives, SSDs have lower latency and access quickly. These storage devices store the data in the semiconductor cells.

Unlike the [HDDs](https://www.javatpoint.com/hdd) (Hard Disk Drives), SSDs do not have any moving parts. That's why they are called solid-state drives.