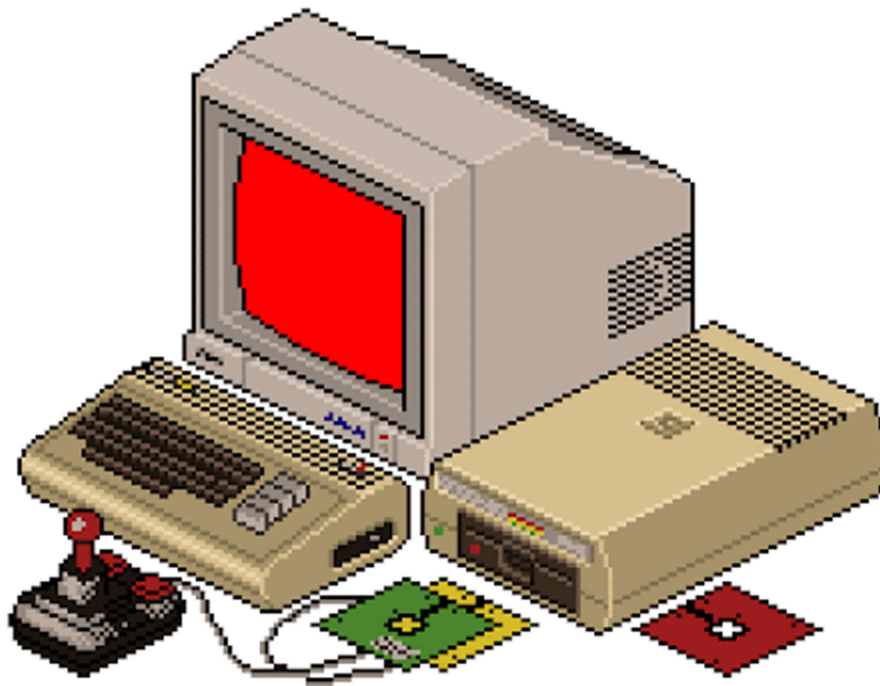


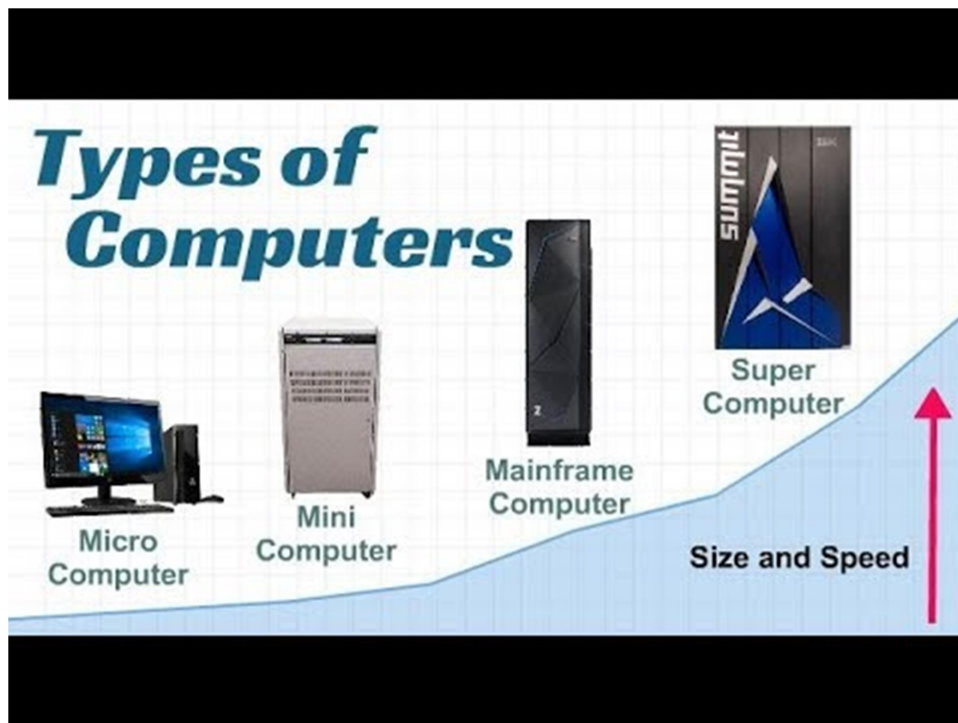
# What is a Computer?

First of all, we should know what computers are to know more about them. A computer is a machine that is made up of various parts or components which help it carry out instructions which are in the form of arithmetic commands or different algorithms for it to process. Computers are used in almost every field like medicine, travel, education, entertainment, etc. It has made our work way easier than ever before.



## Different Types of Computers

Computer systems come in a variety of shapes and sizes. Some computer systems are quite big because they are utilized to do extensive and complex tasks. Some computer systems are quite big. Others are compact and portable and are even small enough to wear around your wrist or as a pair of spectacles and even fit in your pocket.



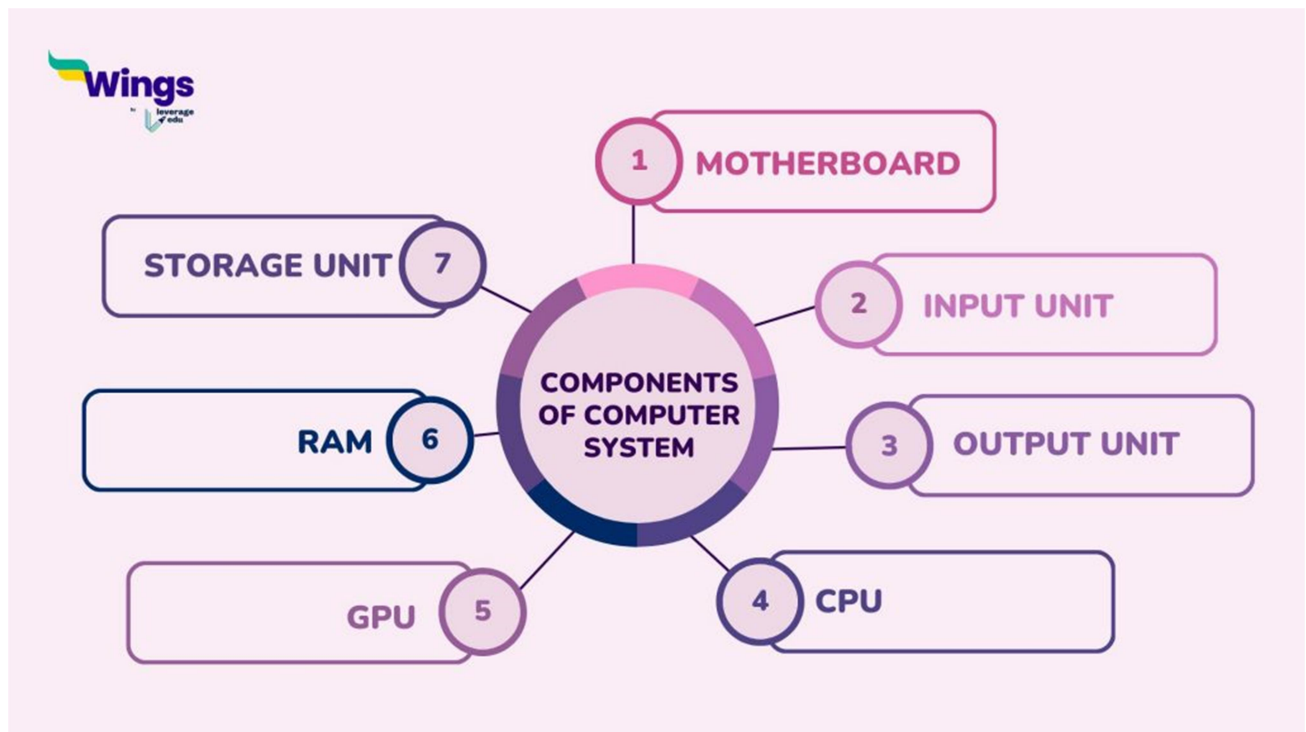
- **Personal/Desktop Computers:** Individuals utilize personal computers, often known as general-purpose computers, for a variety of reasons. A tower, monitor, keyboard, and mouse are all common components of personal computers. Users create and store documents, play games, and generate audio, video, and photography content; the possibilities are limitless.
- **Laptops/Netbooks:** Many users choose laptop computers or notebook computers because they have the same processing capabilities as desktop computers but are more portable. A laptop computer is self-contained, with an integrated screen, keyboard, and mouse pad.
- **Tablet Computers:** Tablet computers are portable computers with screens that are slightly smaller than a typical laptop. Their distinguishing feature is that all user contact is done through touch. There is no keyboard or mouse. Users may initiate tasks, control the mouse, and input data by swiping, pinching, dragging, and rotating icons on the screen.

# Basic Components of Computer

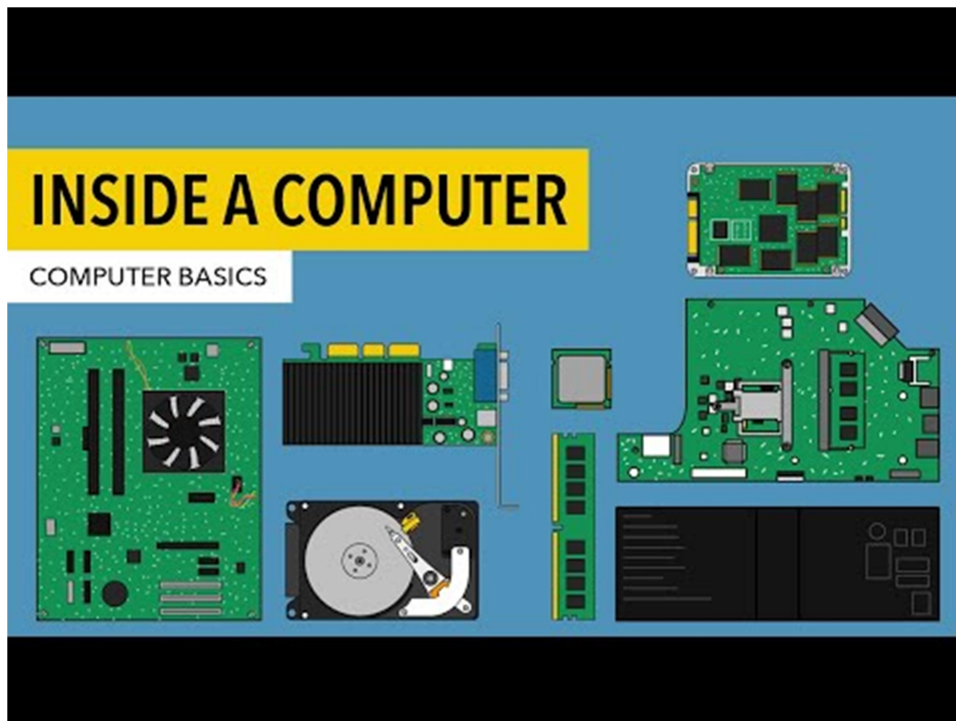
Before diving into the functions of the components of a Computer, let's understand the basic components of a computer:

- Input Unit
- Output Unit
- Memory Unit
- Control Unit
- Arithmetical and Logical Unit

## Components of Computer

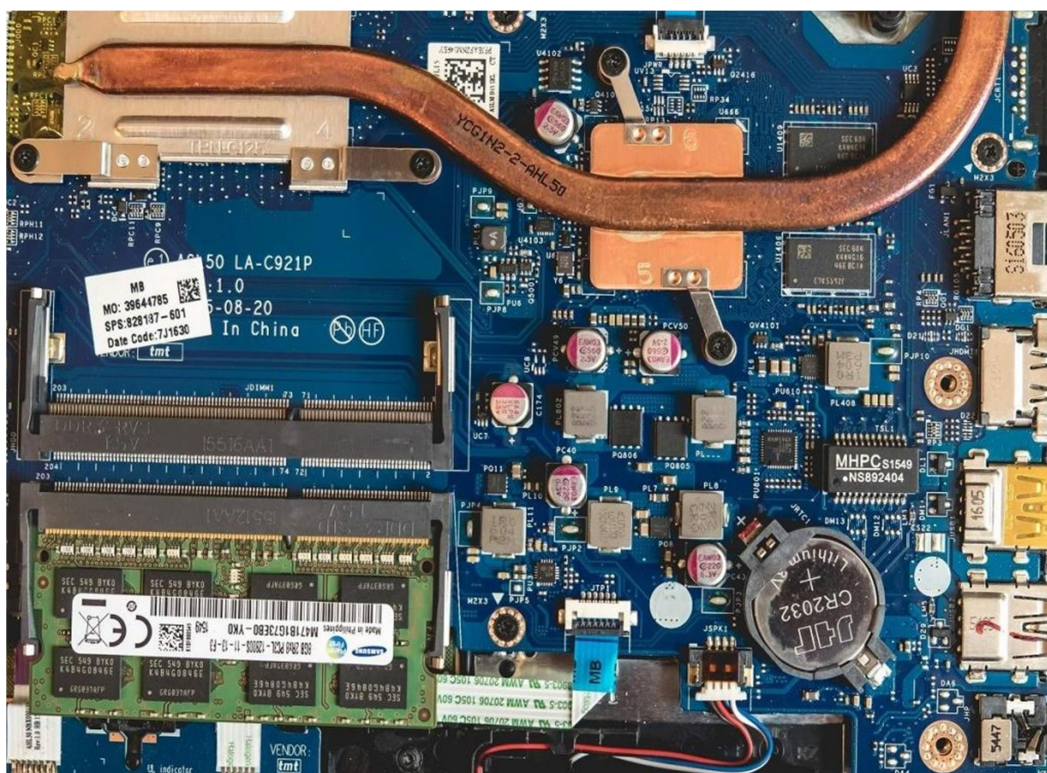


The main things that comprise a computer are – the motherboard, CPU, GPU, RAM, and Hard disk drive for the storage of all the data. We will discuss all these components of the computer in detail below:



## Motherboard

A motherboard is a circuit board through which all the different components of a computer communicate and it keeps everything together. The input and output devices are plugged into the motherboard for function.





## Input Unit

Computers respond to commands given to them in the form of numbers, alphabets, images, etc. through input units or devices like – keyboards, joysticks, etc. These inputs are then processed and converted to computer language and then the response is the output in the language that we understand or the one we have programmed the computer with.

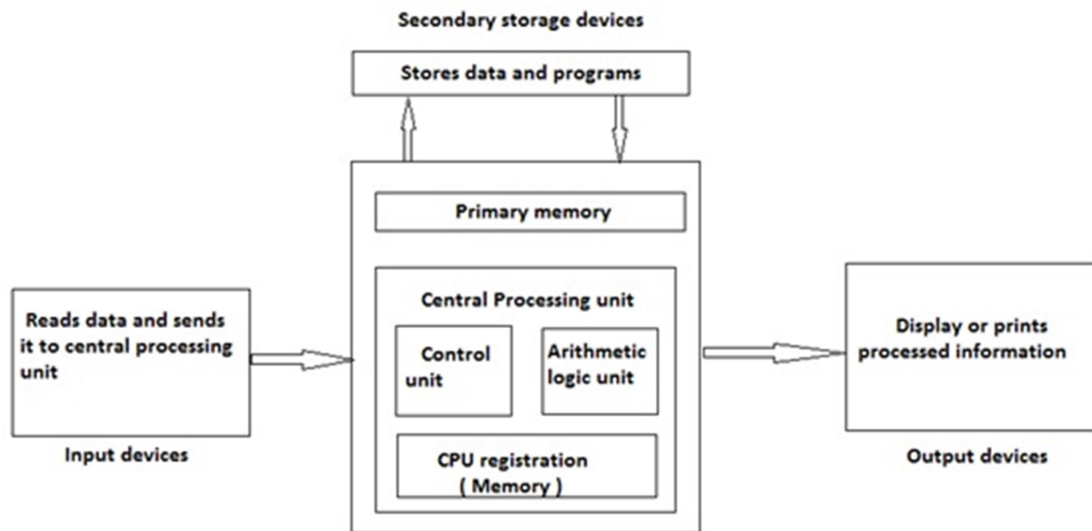
## Output Unit

The result of the command we provide the computer with through the input device is called the output. The monitor is the most used since we give commands using the keyboard and the result or outcome is displayed on the monitor after the processing.



## Central Processing Unit (CPU)

The CPU is called the brain of the computer since no action can take place without its permission and execution is the main processing unit. It communicates with all the other components of the computer and has 3 components that help in the smooth functioning of the CPU. The components of the CPU are:



Central Processing Unit and its interaction with other units

## Memory Unit

The information entered through the input devices is saved in the CPU's memory and then passed on to the other parts. Similarly, when the output is ready it is saved in the memory before the result is given to the user.

## Control Unit

This unit controls the functioning component of the computer. It collects the data entered, leads it on for processing after the processing is done, receives the output, and provides it to the user. So getting instructions, decoding them, signalling the execution, and receiving the output is done by the control centre and hence it is called the centre of all processing actions that happen in the computer.

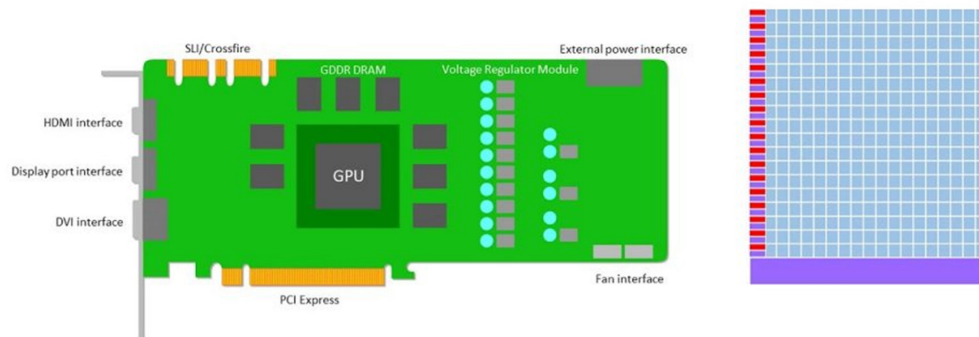
## Arithmetic and Logical Unit

This unit does mathematical calculations, arithmetic operations, comparison of data, and decision-making. It has circuits built for addition, subtraction, multiplication, division, and other calculations.

## Graphics Processing Unit (GPU)

Another vital component of the computer is the GPU. The Graphics Processing Unit or the video card helps generate high-end visuals like the ones in video games. Good graphics like these are also helpful for people who have to execute their work through images like 3D modelers and others who use resource-intensive software. It generally communicates directly with the monitor.

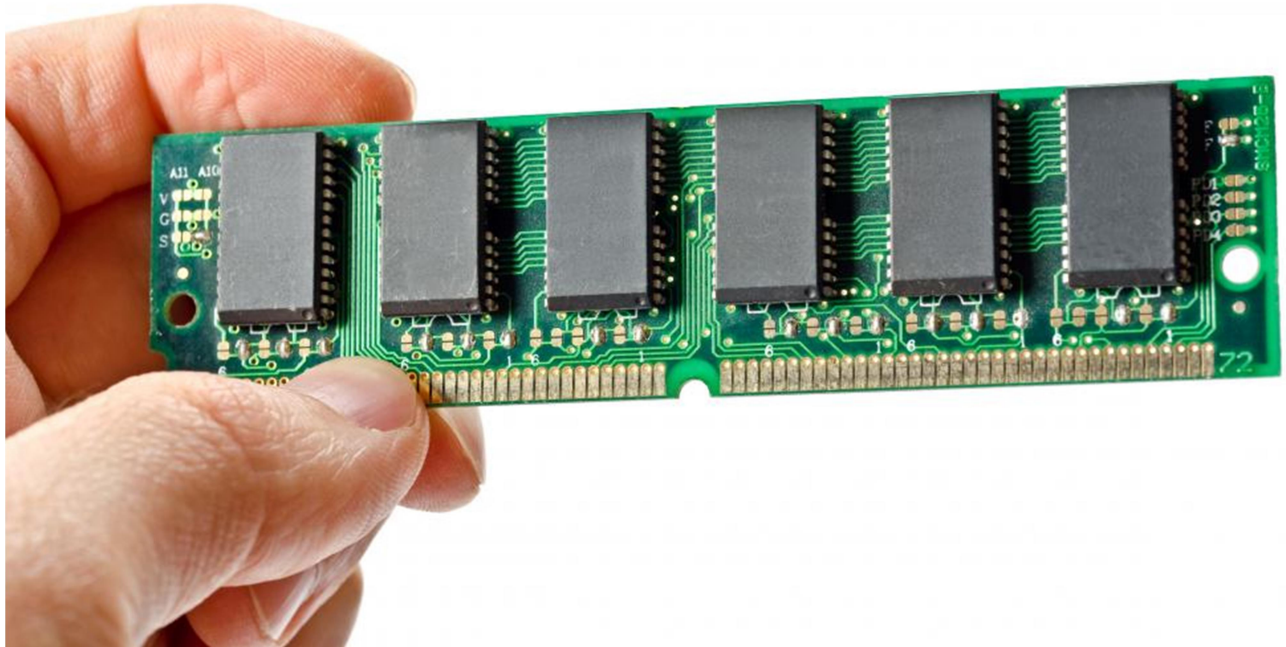
## Graphics Processing Unit GPU



## Random Access Memory (RAM)

RAM is the most commonly referred to as a component in a computer. The RAM is also known as the volatile memory since it gets erased every time the computer restarts. It stores the data regarding the programs which are frequently accessed programs and

processed. It helps programs to start up and close quickly. Its being slower has made it more obsolete these days.



## Storage Unit

The computers need to store all their data and they have either a Hard Disk Drive (HDD) or a **Solid State Drive** (SSD) for this purpose. Hard disk drives are disks that store data and this data is read by a mechanical arm. Solid-state drives are like SIM cards in mobile phones. They have no moving parts and are faster than hard drives. There is no need for a mechanical arm to find data on a physical location on the drive and therefore this takes no time at all.





## Components of Computer System and Its Function

Here is a complete list of computer parts and their functions:

- **Motherboard:** The motherboard is the main board that is screwed into the computer case directly. Its function is to connect all of the components so that they may communicate and work together.
- **Input Unit:** The main function of the input unit is to send commands and transfer data to computers. Later, the data gets processed by the computer's CPU which generates output. For example, a laptop's keyboard is an input device.
- **Output Unit:** The computer's response is relayed through output devices in the form of a visual response (monitor), sound (speakers), or media devices (CD or DVD drives). The function of these devices is to convert the machine's response into a format that the computer user can understand.

- **Central Processing Unit (CPU):** The CPU can be regarded as a computer's brain. On a computational level, it processes all of the data. It reads data from the RAM and processes it in order for the computer to do the tasks it is programmed to do.
- **Graphics Processing Unit (GPU):** GPU is a specialized processor that is created to accelerate **graphics** processing. It can render many pieces of data making them ideal for machine learning, video editing, and gaming.
- **Random Access Memory (RAM):** RAM is a form of data storage that allows for faster read and write operations. RAM is also volatile, which means that if the power goes out, it loses all of the data it has stored.
- **Storage Unit:** This device stores all the data and the instructions required for processing. It keeps intermediate results of processing.

# Questions and Answers on Components of Computer

**Q1. MU, ALU, and CU are all parts of the \_\_\_\_\_.**

1. Storage Memory
2. Input Devices
3. Central Processing Unit
4. Output Unit
5. None of the above

**Answer:**

**Q2. A computer comprises how many types of memory?**

1. One
2. Two
3. Four
4. Eight
5. Six

**Answer**

**Q3. \_\_\_\_\_ is the main memory of a computer.**

1. DVD
2. Random Access Memory
3. Read-Only Memory
4. Internal Hard Drive
5. None of the above

**Answer:**

Q4. What is the full form of GUI?

1. Graphic Unit Interface
2. Games User Interface
3. Graphic Unified Interface
4. Graphic User Interface
5. None of the above

**Answer:**

Q5. Which of the following are the physical parts of a computer?

1. Hardware
2. Software
3. Operating System
4. Software Applications
5. None of the above

**Answer:**

Q6. What does CPU mean?

- A. Control Processing Unit
- B. Central Protocol Unit
- C. Central Processing Unit
- D. Control Produce Unity

**Answer:**

**Q7. Which is an output device?**

- A. Keyboard
- B. Mouse
- C. Printer
- D. All of the above

**Answer:**

**Q8. What does CD mean?**

- A. Create disc
- B. Control disc
- C. Compact disc
- D. Command disc

**Answer:**