Computer Full Form ,Types and History of Computer

Do you have an interest in learning more about computers, or do you simply wish to know more about the full form of computers? Now we'll tell you about the best machine of the twentieth century, the computer, which has transformed our lives.

Computers are utilized extensively in our day-to-day life, including in the workplace, educational institutions, medical settings, and hospitals. But, at some time, you must have wondered: what is the full form of a computer, and how was it developed? Now that we have that out of the way, let's talk about full form of computer and how they evolved.

A computer is an electrical device that receives data from the user, processes that data, and then displays the outcome of the processing as output. The term "computer" is derived from the Latin word "computer," which means "to calculate". The computer's full form is Common Operating Machine Purposely Used for Technological and Educational Research.

Computer Full form

The first 3 words of "computer" are "common operating machine," which is mostly used in the fields of business, education, and research.

- C = Common
- O = Operating
- M = Machine
- P = Particularly
- U = Used
- T = Trade/Technical
- E = Education
- R = Research

Important component of Computer

The ability of a computer to process enormous volumes of data and calculations is made possible by some of the device's most fundamental and essential components. Listed here are some of the most crucial parts of the computer.

1. Input Unit.
2. Output unit.
3. Memory unit.
4. control unit.
5. Arithmetical and logical units

Input unit

A computer's input unit is responsible for transmitting user input to the machine's storage, processing, control, and decision-making sections. This data may be represented by words, numbers, or pictures. In the output unit, the user sees the computer's final, processed answer to what was put into it.

The keyboard, mouse, microphone, scanner, barcode reader, touch screen, light pen, and graphics tablet are just some of the ways that information can be put into a computer.

Output unit

After the computer does calculations with the information from the input unit, the results are shown in the output unit.

Monitors, printers, projectors, sound cards, headphones, speakers, plotters, and other audio output devices are all examples of output units.

Memory unit

The information that is provided is initially saved in the memory unit of the central processing unit (CPU). After the data processing is done, the result is stored in the memory unit before being shown on the output unit.

Control unit

The computer's control unit is an essential component of the machine. This component is responsible for managing the entirety of the computer's system. The control unit is responsible for all of the processing, from retrieving the data from the input unit to displaying the completed task on the output unit.

Arithmetic & Logical Unit

The Arithmetic and Logical Unit of the central processing unit is responsible for carrying out any mathematical computations or arithmetic operations that need to be carried out.

Additionally, it is able to carry out operations such as a comparison of data and decision-making procedures. The arithmetic logic unit (ALU) is made up of many circuits that enable users to conduct operations such as adding, subtracting, multiplying, and dividing, as well as other calculation-based operations.

types of computer

Based on how well they can handle data, computers are mostly divided into three types:

1. Analogue Computer
2. Digital Computer
3. Hybrid Computer

There are five categories of computer based on their size:

1. Supercomputer
2. Mainframe computer
3. Minicomputer
4. Workstation
5. PC (Personal Computer)

Analogue Computer

The Analogue Computer was developed with the specific purpose of handling analogue data. Analogue data refers to data that cannot have discrete values since it is continuous data that changes continually.

In situations where we either don't need exact data or need approximate values, such as when dealing with speed, temperature, or pressure, etc.It presents the results in the form of a reading on a dial or scale. such as a mercury thermometer, a speedometer, and other such instruments.

Digital Computer

The way digital computers are made makes it easy for them to do calculations and logical operations quickly. It takes raw data as its input and runs programs stored in its memory on it to turn it into the final output.

It only understands the binary inputs 0 and 1.Digital computers include all modern laptops, desktops, and smartphones.

Hybrid Computer

As its name suggests, a hybrid is something created by blending two distinct elements. Likewise, the hybrid computer combines analog and digital computing. Hybrid computers have the speed of an analog computer as well as the memory and precision of a digital computer. Therefore, it can process both continuous and discrete data.

A good example of a hybrid computer is the processor that is found in petrol pumps and that translates the measurements of fuel flow into quantities of fuel and prices.

Supercomputer

- The fastest computers are known as supercomputers, and they also happen to be the most expensive.
- The fact that it can perform up to 10 trillion calculations per second is another factor contributing to its incredible speed.
- It's utilized by the stock exchange and other large companies to manage digital currencies like bitcoin.
- Data gathered from spacecraft, satellites, and other scientific probes are analyzed using this computer.

Mainframe computer

- The architecture of mainframe computers is such that they are able to accommodate tens, hundreds, or even thousands of users all at the same time.
- Additionally, it is capable of running many programs all at once.
- In this way, they are able to carry out multiple processes all at once.
- Typically utilized in large enterprises such as banking and telecom sectors, amongst others, which process a significant amount of data on a regular basis.
- Long-lasting and runs well for a long time.

Minicomputer

- A minicomputer is a multiprocessing computer that is of a medium size.
- This category of computer has two or more CPUs, and it can accommodate anywhere from four to two hundred people all at once.
- In establishments such as institutions and departments, minicomputers are utilized for a variety of tasks, including billing, bookkeeping, inventory management, and so on.
- It is bigger than a microcomputer but smaller than a mainframe computer.

Workstation

- The workstation is made for use in technical or scientific fields.
- It is a computer for one person to use. Typically, it is utilized to complete a certain activity with exceptional precision.
- Compared to a PC, it has a lot more storage space, better graphics, and a more powerful CPU.
- It is also used for animation, data analysis, computer-aided design (CAD), making audio and video, and editing.

PC (Personal Computer)

- The term "microcomputer" can also be used to refer to a "personal computer."
- It is essentially a computer that can be used for a variety of tasks and is intended for personal usage.
- It is made up of a memory, an input unit, an output unit, and a central processing unit (CPU) in the form of a microprocessor.

Generations of Computer (history of computer)

The modern form of computers gradually emerged during the course of their development. At first, computer went through many changes. It continued to get better in terms of speed, accuracy, size, and cost over time. This long time period is often divided into 5 phases called computer generations:

- **First Generation Computers (1940-1956)**
- **Second Generation Computers (1956-1963)**
- **Third Generation Computers (1964-1971)**
- **Fourth Generation Computers (1971-Present)**
- **Fifth Generation Computers (Present and Beyond)**

First Generation Computers (1940-1956)

Vacuum tubes, often referred to as electronic valves, were utilized in the construction of the very first generation of computers. The digital computer was the product of the first generation of computer technology. Two examples of computers that belong to the first generation are the Mark I and the Electronic Numerical Integrator and Calculator (ENIAC)

Second Generation Computers (1956-1963)

Transistors, which were far more compact than vacuum tubes, were the predominant technology in second-generation computers. One further characteristic was the core storage. A device made of semiconductor material that amplifies a signal or opens or closes a circuit can be called a transistor.

PDP-8, IBM1400 series, IBM 7090 and 7094, UNIVAC 1107, CDC 3600 are the example of second-generation computers.

Third Generation Computers (1964-1971)

During the third generation, technology was expected to move away from big transistors and toward integrated circuits, which are also called ICs. Here, different kinds of transistors were put on semiconductors, which are chips made of silicon.

The most important things about the computers of this time were their speed and dependability. Since ICs were made of silicon, they were also called "silicon chips."IBM 360, IBM 370, PDP-11, NCR 395, B6500, UNIVAC 1108 are the examples of third-generation computers

Fourth Generation Computers (1971-1990)

1971 saw the beginning of widespread use of microprocessors, also known as large scale integrated circuits (LSI) that were manufactured on a single chip. The most significant benefit of utilizing this technology is that a single microprocessor may house all of the necessary circuitry on a single chip in order to carry out control functions, logical operations, and arithmetic operations.

IBM PC, STAR 1000, APPLE II, Apple Macintosh, Alter 8800 are the examples of fourth-generation computers.

Fifth Generation Computers (1990-Present)

Artificial intelligence (AI) is the underlying technology that enables the fifth generation of computers. It gives computers the ability to act in humanlike ways. It is frequently utilized in areas like as voice recognition software, the medical field, and the entertainment industry. It has also shown amazing results in the game playing field, where computers can beat human competitors.

Desktops, laptops, tablets, smartphones are the examples of fifth-generation computers.

Computer Related full forms/terms

Computer Memory

- KB- Kilobyte (this is the smallest storage unit)
- MB- MegaByte
- GB- GigaByte
- TB- TeraByte
- PB- PentaByte
- EB- EXAByte
- ZB- ZetaByte

Computer Hardware

- BIOS- Basic Input Output System
- CD- Compact Disk
- CPU– Central Processing Unit
- DVD- Digital Video Disk
- FDD- Floppy Disk Drive
- HDD- Hard Disk Drive
- HDMI- High Definition Multimedia Interface
- LCD – Liquid Crystal Display
- LED- Light Emitting Diode
- MMC- Multi-Media Card
- NTFS- New Technology File System
- PDF- Portable Document Format
- Prom- Programmable Read-Only Memory
- RAM– Random Access Memory
- ROM- Read-only Memory
- SMPS- Switch Mode Power Supply
- SSD- Solid State Drive
- UPS- Uninterrupted Power Supply
- USB- Universal Serial Bus
- VDU- Visual Display Unit
- VGA- Video Graphics Array
- Computer Softwares
- ALU- Arithmetic Logic Unit
- DVI- Digital Visual Interface
- OS- Operating System
- VIRUS – Vital Information Resources Under Seige

Computer education

- ADCA– Advance Diploma in Computer Application
- BCA- Bachelor of Computer Application

- COPA- Computer Operator cum Programming Assistant
- CSE- Computer Science Engineering
- DCA- Diploma in Computer Application
- DCE- Diploma in Computer Engineering
- IT- Information Technology
- MCA- Master of Computer Application

Computer Networking Terms

- 2G- 2nd Generation
- 3G- 3rd Generation
- 4G- 4th Generation
- 5G- 5th Generation
- CDMA full form- Code Division Multiple Access
- DNS- Domain Name System
- GPRS- General Packet Radio Service
- GSM- Global System for Mobile Communication
- HTML- HyperText Markup language
- IP- Internet Protocol
- ISP- Internet Service Provider
- SIM- Subscriber Identity Module
- URL- Uniform Resource Locator
- VPS- Virtual Private Server
- WAN- Wide Area Network
- WIFI- Wireless Fidelity
- WLAN- Wireless Local Area Network
- WWW- World Wide Web