**PC (Personal Computer)**

A **personal computer** (**PC**) is the common name for a type of [computer](https://simple.wikipedia.org/wiki/Computer) that is most popular in offices and homes. The first PC called the "IBM PC" was made by the [company](https://simple.wikipedia.org/wiki/Company) called [IBM](https://simple.wikipedia.org/wiki/IBM) in 1981, although many computers were made before like the [Commodore PET](https://simple.wikipedia.org/w/index.php?title=Commodore_PET&action=edit&redlink=1). [Smartphones](https://simple.wikipedia.org/wiki/Smartphone) and [tablet computers](https://simple.wikipedia.org/wiki/Tablet_computer) are also computers for personal use, but they are not often called "personal computers".

The most popular operating system on PCs is [Windows](https://simple.wikipedia.org/wiki/Microsoft_Windows), sold by [Microsoft Corporation](https://simple.wikipedia.org/wiki/Microsoft). PCs made by a company called [Apple Inc.](https://simple.wikipedia.org/wiki/Apple_Inc.) can use a different system of software called [Mac OS](https://simple.wikipedia.org/wiki/Mac_OS) that is sold by Apple Inc.

Many free operating systems are available. They are called [Linux](https://simple.wikipedia.org/wiki/Linux) operating systems. There are over 300 different Linux "distributions". Each one has a different purpose. Ubuntu-Linux is the most-used Linux because it is the easiest to use.

A modern PC has a minimum set of parts to be useful. The "Base unit" or "Tower" is the main part of the computer. A [mouse](https://simple.wikipedia.org/wiki/Computer_mouse) and [keyboard](https://simple.wikipedia.org/wiki/Keyboard_%28computer%29) are used for [input](https://simple.wikipedia.org/wiki/Input_device). A [monitor](https://simple.wikipedia.org/wiki/Computer_monitor) is needed to view [output](https://simple.wikipedia.org/wiki/Output_device). In a [laptop](https://simple.wikipedia.org/wiki/Laptop) computer these parts are all together.

Inside the base unit or tower there are many electronic parts. The main parts are the [motherboard](https://simple.wikipedia.org/wiki/Motherboard), [CPU](https://simple.wikipedia.org/wiki/CPU), the [Hard disk](https://simple.wikipedia.org/wiki/Hard_disk) and [memory](https://simple.wikipedia.org/wiki/Memory).

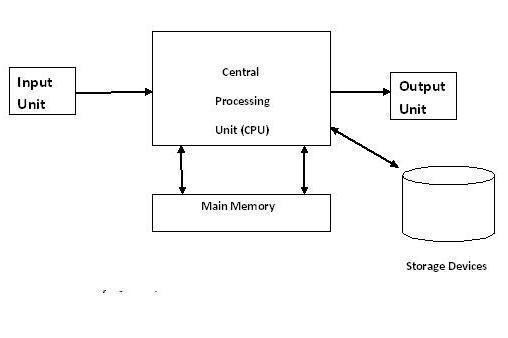
The CPU (Central Processing unit) follows the instructions in the operating system and application [programs](https://simple.wikipedia.org/wiki/Computer_program). The [memory](https://simple.wikipedia.org/wiki/Memory), or [RAM](https://simple.wikipedia.org/wiki/Random_access_memory) (random access memory), is for moving [information](https://simple.wikipedia.org/wiki/Information) (or data) quickly to and from the processor. The [hard drive](https://simple.wikipedia.org/wiki/Hard_drive) holds programs and data while the computer is powered off. [Floppy drives](https://simple.wikipedia.org/wiki/Floppy_drive), [CD-ROM](https://simple.wikipedia.org/wiki/CD-ROM) drives are used for storing information on removable disks.

Modern PCs have various sockets called [ports](https://simple.wikipedia.org/wiki/Port). The most common ports are known as [USB ports](https://simple.wikipedia.org/wiki/USB_port).

Computers may be used for [work](https://simple.wikipedia.org/wiki/Work), including doing [research](https://simple.wikipedia.org/wiki/Research) using the internet, keeping [records](https://simple.wikipedia.org/wiki/Record); or writing documents. Other uses include [communicating](https://simple.wikipedia.org/wiki/Communication), with people across the world using [Instant messaging](https://simple.wikipedia.org/wiki/Instant_messaging), [e-mail](https://simple.wikipedia.org/wiki/E-mail) or [Skype](https://simple.wikipedia.org/wiki/Skype) or recreation activity such as playing [computer games](https://simple.wikipedia.org/wiki/Computer_game).

**Basic Units of Personal Computers**

A computer is an electronic device that can perform a variety of operations in accordance with a set of instructions called program.

[](https://worldfullofquestions.files.wordpress.com/2014/08/basic-architecture-of-computer.jpg)

**Figure: Basic Structure of a Computer**

**Input Unit**

The input unit is formed by the input devices attached to the computer.

Examples of input devices and media are: keyboard, mouse, magnetic ink character reader (MICR), optical mark reader (OMR), optical character reader (OCR), joystick etc.

The input unit is responsible for taking input and converting it into computer understandable form (the binary code). Since a computer operates on electricity, it can understand only the language of electricity that is, either ON or OFF or high voltage or low voltage. That means a computer can understand two stages ON/OFF or High/Low voltage or the binary language that uses just two symbols: 1 for ON and 0 for OFF.

An input unit takes the input and converts it into binary form so that it can be understood by the computer.

**Central Processing Unit (CPU)**:The CPU is the control center for a computer. It guides, directs and governs its performance. It is the brain of the computer. The CPU has two components which are responsible for different functions. These two components are its Control Unit (CU) and Arithmetic Logic Unit (ALU).

**Arithmetic Logic Unit (ALU)**

The ALU performs all the four arithmetic (+,-,\*,/) and some logical (<,>,=,<=,>=,<>) operations. When two numbers are required to be added, these numbers are sent from memory to ALU where addition takes place and the result is put back in the memory. The same way other arithmetic operations are performed.

For logical operations also, the numbers to be compared are sent from memory to ALU where the comparison takes place and the result is returned to the memory. The result of a logical operation is either TRUE or FALSE. These operations provide the capability of decision-making to the computer.

**Control Unit (CU)**

The Control Unit (CU) controls and guides the interpretation, flow and manipulation of all data and information. The CU sends control signals until the required operations are done properly by ALU and memory. Another important function of CU is the program execution that is, carrying out all the instructions stored in the program. The CU gets program instructions from memory and executes them one after the other. After getting the instructions from memory in CU, the instruction is decoded and interpreted that is, which operation is to be performed. Then the asked operation is carried out. After the work of this instruction is completed, control unit sends signal to memory to send the next instruction in sequence to CU.

The control unit even controls the flow of data from input devices to memory and from memory to output devices.

**Output Unit**

The output unit is formed by the output devices attached to the computer. The output coming from the CPU is in the form of electronic binary signals which needs conversion in some form which can be easily understood by human beings that is, characters, graphical or audio visual. This function of conversion is performed by output units. Some popular output devices are VDU (Visual Display Unit), printer, plotter, speech synthesizer and coder etc.

**The Memory**

The memory of a computer is more like a predefined working place, where it temporarily keeps information and data to facilitate its performance. When the task is performed, it clears its memory and memory space is then available for the next task to be performed. When the power is switched off, everything stored in the memory gets erased and cannot be recalled.

The memory of computer is often called main memory or primary memory.