

Computer Fundamentals

Classification of Computers

Riya Jacob K Asst. Professor on contract, Dept of BCA Academic year 2020-21

Computers can broadly classified by their speed and computing power.

Sr.No	Туре	Specifications
1	PC (Personal Computer) or Micro- Computers	It is a single user computer system having a moderately powerful microprocessor. It is termed as a computer that is equipped microprocessor as its CPU.
2	Workstation	It is also a single user computer system, similar to the personal computer, however, has a more powerful microprocessor.
3	Mini- Computer	It is a multi-user computer system, capable of supporting hundreds of users simultaneously.
4	Main Frame	It is a multi-user computer system, capable of supporting hundreds of users simultaneously. Software technology is different from minicomputer.
5	Super- Computer	It is an extremely fast computer, which can execute hundreds of millions of instructions per second.

1. PC (Personal Computer)

- A PC can be defined as a small, relatively inexpensive computer designed for an individual user.
- PCs are based on the microprocessor technology that enables manufacturers to put an entire CPU on one chip.
- Businesses use personal computers for word processing, accounting, desktop publishing, and for running spreadsheet and database management applications.
- At home, the most popular use for personal computers is playing games and surfing the Internet.
- Although personal computers are designed as single-user systems, these systems are normally linked together to form a network.



2. Workstation

- The workstation is a computer used for engineering applications (CAD/CAM), desktop publishing, software development, and other such types of applications which require a moderate amount of computing power and relatively high-quality graphics capabilities.
- Workstations generally come with a large, high-resolution graphics screen, a large amount of RAM, inbuilt network support, and a graphical user interface.
- Most workstations also have mass storage device such as a disk drive, but a special type of workstation, called diskless workstations, comes without a disk drive.
- Common operating systems for workstations are UNIX and Windows NT.
- Like PC, workstations are also single-user computers like PC but are typically linked together to form a local area network, although they can also be used as stand-alone systems.



3. Minicomputer

• It is a midsize multi-processing system capable of supporting up to 250 users simultaneously.



4. Mainframe

- The mainframe is very large in size and is an expensive computer capable of supporting hundreds or even thousands of users simultaneously.
- Mainframe executes many programs concurrently and supports much simultaneous execution of programs.



5. Supercomputer

- Supercomputers are one of the fastest computers currently available.
- Supercomputers are very expensive and are employed for specialized applications that require an immense amount of mathematical calculations (numbercrunching).
- For example, weather forecasting, scientific simulations, (animated)graphics, fluid dynamic calculations, nuclear

energy research, electronic design, and analysis of geological data (e.g. in petrochemical prospecting).

