

Types of Computers



TYPES OF COMPUTERS



Introduction



- Computers can be classified into
 1. super computers,
 2. mainframe computers,
 3. minicomputers, and
 4. microcomputers (personal computers)
- The basis of this classification is:
 - Size
 - Cost
 - Performance
 - ✦ Speed of processing data
 - ✦ Storage capacity
 - ✦ Ability to handle input and output devices

Super Computers



- Super computers are the largest and fastest computers.
- They are also the costliest computers.
- They are used in fields like science and defense.
- These computers are used for
 - designing and launching missiles,
 - weather forecasting,
 - biomedical research,
 - aircraft design and automobile design.

Super Computers...



- There are only a few super computers throughout the world.
- Some examples are
 - IBM Blue Gene/L,
 - IBM Roadrunner and
 - Cray Jaguar.
 - CRAY X-MP
 - HITAC S-300

Super Computers...

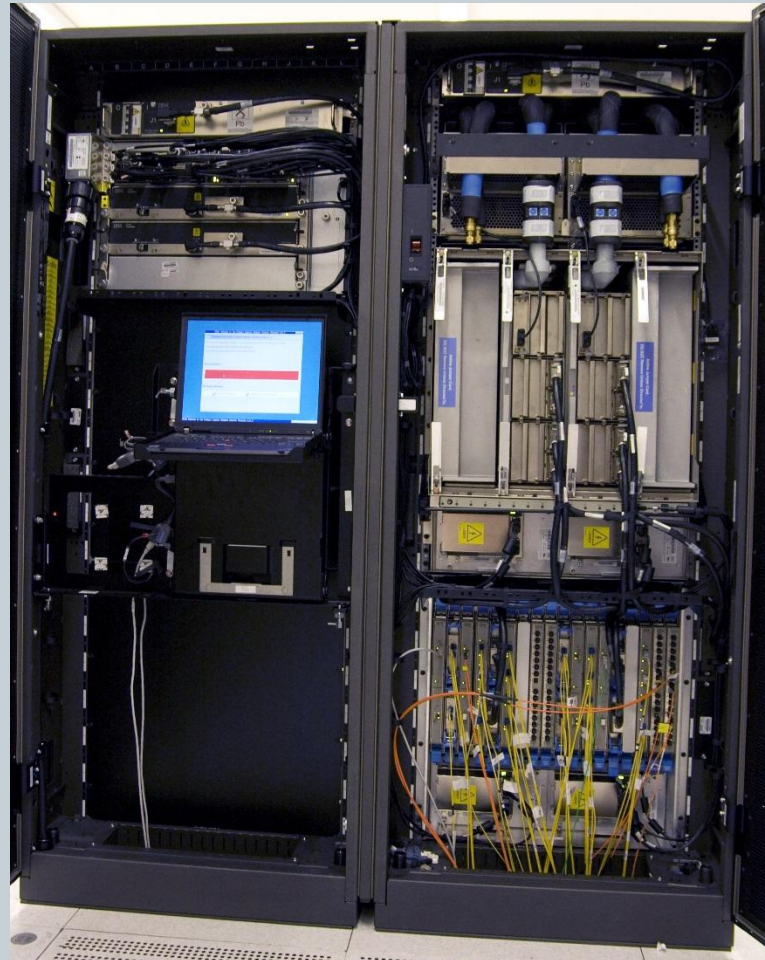


Mainframe Computers



- Mainframe computers are more powerful than minicomputers.
- They have high processing speeds and can store large amounts of data.
- They are used in wide area networks and support hundreds of users.
- However, these computers consume more electricity.
- Some examples are
 - IBM 3000 series and
 - Univac 1180.

Mainframe Computers...



Minicomputers



- Minicomputers are small general-purpose computers, also called *midrange servers*.
- These computers can perform more complex tasks and cost more than microcomputers.
- They are larger in size and they have small to medium storage capacity.
- They are used for processing data and analysing results of experiments.
- They are also used for controlling and monitoring production processes.
- Some examples are
 - PDP 11/42 and
 - VAX 11.

Minicomputers...



Microcomputers



- Microcomputers are also called Personal Computers (PCs).
- These computers use microprocessors.
- They are small in size and relatively smaller storage capacities.
- They can perform difficult tasks.
- They are used mainly for
 - desktop publishing,
 - accounting,
 - statistical analysis,
 - graphics designing and
 - project management.

Microcomputers...



- Some examples are
 - Apple II,
 - IBM PC,
 - PS/2 and
 - Macintosh.
 - All pc or mac computers we use today are microcomputers

Microcomputers...



Microcomputers...



- Personal computer or PCs are the popular form of computers.
- Individuals as well as organizations use these computers.
- The classification of PCs is as:
 - **Desktops:** These PCs are those in which the case or main housing sits on a desk, with keyboard in front and screen (monitor) often on top.
 - **Portables:** These PCs are so small that they can be placed on your lap or could be wearable devices.

Microcomputers...



- Portables can be carried while travelling unlike desktops.
- The portables are classified as:
- **Laptops:** These are small-sized machines that have the same power of a desktop.
- **Notebooks:** These are smaller than a laptop and are designed to overcome the drawbacks of a laptop. They have the size of a notebook but are as powerful as a desktop.

Microcomputers...



- ***Palmtops*** or Personal Digital Assistants (***PDA***s):
These are handheld computers which have the size of a pocket calculator.
 - They are not as powerful as a desktop.
 - PDAs combine personal organization tools — schedule planners,
 - ✦ address books,
 - ✦ to-do lists —
 - ✦ with the ability in some cases to send e-mail and faxes.
- Example: HP95LX.