Lecture 3

Computers classification

Computers can be generally classified by *purpose, size and number of users* as follows:

- **Special-Purpose Computers:** As the name states, a Special-Purpose Computer are designed to be task specific and most of the times their job is to ***solve one particular problem***. They are also known as ***dedicated computers***, because they are dedicated to perform a single task over and over again.

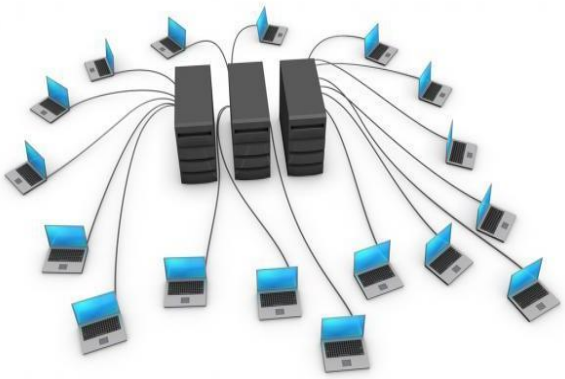
Such a computer system would be useful in:

1) Playing graphic intensive Video Games.
2) Traffic lights control system.
3) Weather forecasting.
4) Oil exploration.
5) Automotive industries.
6) Keeping time in a digital watch.
7) Heart monitoring equipment
8) Global positioning satellite (GPS) navigation tools
9) Microwaves and other home appliances

- **Personal computer**: The personal computers are specially designed for general purpose. PC are widely used & the fastest growing computers. Its small, relatively inexpensive computer based on the ***microprocessor*** technology that enables manufacturers to put an entire CPU on one chip. Well known manufacturers of PC are Dell, Apple, Samsung, Sony and Toshiba.

- **Minicomputer:** Minicomputers may contain one or more processors, support multiprocessing and tasking, and are generally resilient to high workloads. Although they are smaller than mainframe or supercomputers, minicomputers are more powerful than personal computers and workstations.

- **Mainframe:** A powerful multi-user computer capable of supporting many hundreds or thousands of users simultaneously. For example: *Banks, Educational institutions and Control massive networks*.



- **Supercomputer:** An extremely fast computer that can perform hundreds of millions of instructions per second. Supercomputers are very expensive and are employed for specialized applications that require huge number of mathematical calculations. For example: ***Weather forecasting, scientific simulations and Nuclear energy research*.**