

# Fifth Generation Computers

Time Period : Today to Future Technology

Technology : AI (Artificial Intelligence)



Characterized by:

- still in development, though there are some applications, such as voice recognition, that are being used today.
- The use of parallel processing and superconductors is helping to make artificial intelligence a reality.
- Quantum computation and molecular and nanotechnology will change the face of computers in years to come.
- **The goal** of fifth-generation computing is to develop devices that respond to natural language input and are capable of learning and self-organization.

# COMPUTER SYSTEM

## THE COMPUTER DEFINED

In basic term, a computer is an electronic device that processes data, converting them into information that is useful to people. It has the ability to store, recovering, and process data.

Any computer is controlled by programmed instructions, which gives the machine a purpose and tell it what to do.

## TYPES OF COMPUTER

1. MAINFRAME COMPUTER
2. MINICOMPUTER
3. SUPERCOMPUTER
4. PERSONAL COMPUTER

### 1. MAINFRAME COMPUTER

Mainframe computer are used in large organizations such as insurance companies and banks, where many people need to use the same data. In a traditional mainframe environment, each user accesses the mainframe's resources through a device called a terminal. There are two types of terminals:

- **A dumb terminal** does not process or store data; it is simply an input/output device that functions as a window into a computer located somewhere else.
- **An intelligent terminal** can perform some processing operations, but it usually does not have any storage.



## 2. MINICOMPUTER

First released in the 1960s, minicomputers got their name because of their small size compared to other computer of this days. The capabilities of a minicomputer are somewhere between those of mainframe and personal computers. For this reason minicomputers are often called midrange computers.



### 3. SUPERCOMPUTER

Supercomputers are the most powerful computers made, and physically they are some of the largest. These systems can process huge amounts of data, and the fastest supercomputers can perform more than one trillion calculations per second.



### 4. PERSONAL COMPUTER

The most common types of computer is personal computer- a personal computer that is designed to sit on a desk or table. These are the systems you see all around you, in school, homes, and office.

- Today's personal computers are more powerful than those of just a few years ago.
- Not only enable people to do their jobs with greater ease and efficient, but they can be used to communicate, produce music, edit photographs and videos, etc.
- the main components of the personal computer is the system units.



- IBM invented the PC (Personal Computer) in 1981. All PCs released are in compatible with the original design, though many extensions have been made.
- The term PC compatible to PCs manufactured by companies other than IBM which are compatible with the traditional PC specification.
- In the early days, most PCs run an operating system called DOS (Disk Operating System).
- These days most PCs will be running a version of Microsoft Windows such as Microsoft Windows 7,8 or 10.

## Laptop

- Laptop computers, are small portable computers which can run on batteries as well as mains power.
- They use special screens, rather than the traditional bulky VDUs (Visual Display Units), which allows for longer battery life as well as portability.
- A newer term, “Notebooks”, simply refer to a VERY small laptop.



## Apple computers

- The Apple Mac is a computer, but NOT a PC. It uses a different operating system, and may require special versions of application programs (such as word-processors or spreadsheets).
- Even the hardware add-ons have to be customized to be able to connected to a Mac.
- In the early days which really Characterized by the Mac over the PC was the GUI (Graphical User Interface), or in easy English the way use the mouse to drive the computer.
- In the early days of the PC, you really had to be a bit of an expert to use and maintain your PC.

