

(Generations of Computers)

First Generation Computers

Time Period : 1940 to 1956

Technology : Vacuum Tubes

Size : Very Large System

Processing : Very Slow

Characterized By:-

- Magnetic Drums
- Magnetic Tapes
- Difficult to program
- Used machine language & assembly language



DISADVANTAGE

The disadvantages of the first-generation computers are:

1. They were too bulky.
2. They emitted large amounts of heat because they used lots of vacuum tubes
3. AIR conditioning was required.
4. They were prone to frequent failure that's why they were unreliable.
5. They were not portable.

Second Generation Computers

Time Period : 1956 to 1963

Technology : Transistors

Size : Smaller

Processing : Faster

Characterized By:-

- Magnetic Cores
- Magnetic Disk
- Used high level language
- Easier to program



ADVANTAGES

The advantages that the second-generation computers had over the First generation computers are:

1. They were smaller as compared to first-generation computers.
2. They generated less heat.
3. They took comparatively less computers time.
4. They were less prone to failure.

DISADVANTAGES

The disadvantages that second generation computer had over the first generation commuter are:

1. They required Air Conditioning.
2. Frequent maintenance was required.
3. They were difficult and quite expensive

Third Generation Computers

Time Period : 1963 to 1971

Technology : ICs (Integrated Circuits) Incorporated many transistors & electronic circuits on a single chip.

Size : Small as compared to 2nd generation computers.

Processing : Faster than 2nd generation computers.

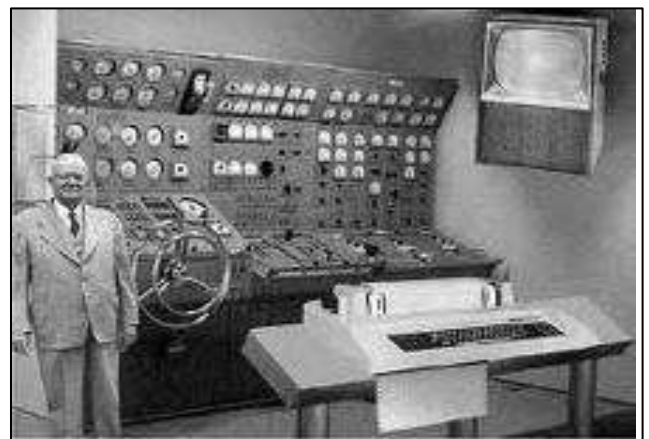
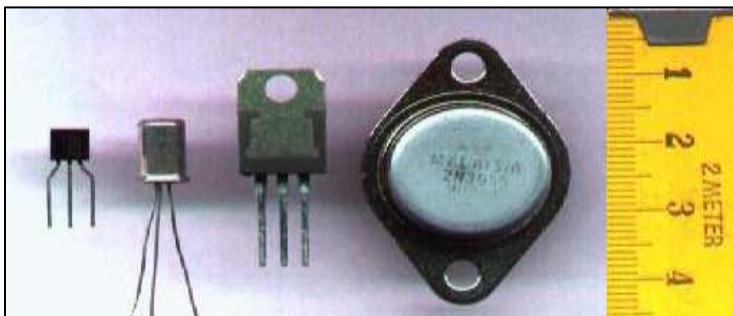
Characterized by:-

- Minicomputers accessible by multiple users from remote terminals.

ADVANTAGES

THE advantages that the third-generated computers had over the second generation computers were:

- 1.They were smaller in size as compared to the second-generation computers.
2. They generated less heat.
3. They reduced computational time.
4. They involved low maintenance cost.
5. They were easily portable.
6. They were comparatively cheaper.



Fourth Generation Computers

Time Period : 1971 to Today

Technology : VLSI (Very Large Scale Integration) Incorporated many millions of transistors & electronic circuits on a single chip

Size : Small as compared to first generation computer

Processing : Faster than first generation computer

Characterized by:

- The personal computer and user friendly micro-programs.
- very fast processor chip.
- high level language.
- OOP (Object Oriented Programming).

ADVANTAGES

They advantages of fourth generation computers over third-generation computers are:

- They were cheaper.
- They had a larger memory and high functional speed.
- They consumed less power.
- They generated a little bit amount of heat.

