

The evolution of computers has passed through different stages before it reached the present state of development. The evolution probably [started from 3000 bc. when human beings first started to learn to calculate with a calculating machine named Abacus. Thus, the evolution of counting system from abacus to modern microcomputer is the result of continuous human effort in search of a more versatile and efficient

There are so many machines invented in search of today's computer

Abacus

Wheel calculator or mechanical calculator
invented by Blaise Pascal

Stepped card invented by Joseph Marie
Jacquard

Punched card invented by Charles Babbage

Hollerith code invented by Herman Hollerith

Atanasoff Berry computer invented by J.V. Atanasoff and Clifford Berry

Colossus invented by Alan Turing.

ENIAC invented by J. presper Eckert and John V. Mauchly.

ENIAC is the first man made computer which can accept data, process data, retrieve data and also store data.

GENERATION OF COMPUTER

The word "generation" for computers indicates a step-in technology. Every step includes a major change in the components used for constructing a computer. originally the term generation was used to distinguish between varying hardware technologies.

GENERATION

We can specify the five generations of computers.

FIRST GENERATION (1943—1955)

FEATURE

Computers are extremely large and low reliable.

They used VACUUM TUBES.

Generated huge heat.

Air conditioner system is required.

They are very expensive.

They used machine language.`

Their data processing speed is very poor.

Examples

ENIAC (electronic numeric integrator and calculator)

UNIVAC (universal automatic computer)

IBM – 650

SECOND GENERATION (1955 – 1964)

Features

- Smaller in size as a computer to the first generation.
- More reliable and offer better speed
- They use TRANSISTORS.
- Less heat generated.
- Air condition system is required.

Example

IBM – 700 SERIES

THIRD GENERATION (1964—1975)

Features

Portable in size.

Even more reliable and offer better speed than the second generation.

They used Integrated Circuits (IC).

They used microprocessor (first Intel 400)

Two types of scaling integration are introduced in this generation.

SSI: Small scale integration

MSI: medium scale integration

Less power consumption.

Low maintenance cost.

First external storage (diskette) device used.

Example—IBM-PC

FOURTH GENERATION (1975—1983)

Features

They used Integrator Circuits(IC).

Even more reliable and offer high speed than the third generation.

Another two types of integration are introduced in the fourth generation.

LSI: LARGE SCALE INTEGRATION.

VLSI: VERY LARGE SCALE
INTEGRATION

Less power consumption.

Low maintenance cost.

Large memory size.

Introduce networking concept

Example:

Apple, Macintosh etc.

FIFTH GENERATION (1983—1993)

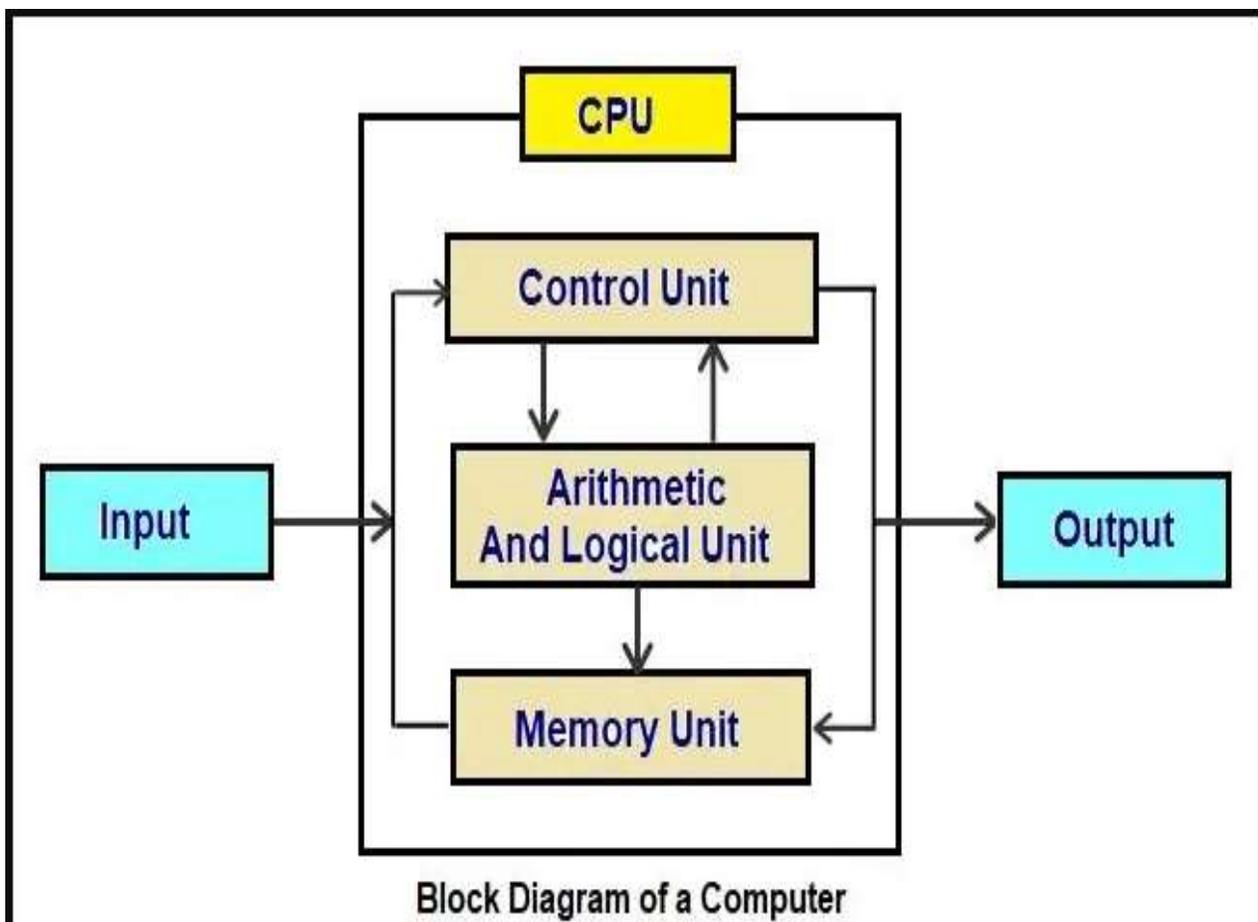
Features

_Build different types of networking systems and internet technology.

Men are working to make ARTIFICIAL INTELLIGENCE.

BLOCK DIAGRAM OF COMPUTER

Most of the pc's designs are based on the concept of John Von Neumann. He describes that there are five main units to perform operations on data and their functions.



The above diagram is called a computer block diagram of computers. The diagram is described by John Von Neumann. That's why it is also called Von Neumann architecture.