**COMPUTER**

DEFINITATION

A computer is an electronic machine , operating under the control of instructions stored in its own memory that can accept data ( input ) , manipulate the data according to specified rules ( process ) , produse results ( output ) , and store the result for future use.

Technically , a computer is a programmable machine . This means it can execute a list of programmed instructions and respond to new instructions that it is given .

HISTORY OF COMPUTER

CHARLES BABBAGE ‘S MACHINE

The working principle of today’s computer were providing by an English mathematician Charles babbage around 1833’s invested a machine called the “Analytical Engine “ . A machine which could calculate and print tables of functions using limited techniques.

The analytical engine had fourparts . A mill , which was the section which did the calculations, essenitially the C.P.U. ,the store , wre the information was kept recorded , essenitially the memory, the reader , which would allow keyboard ,and the printer.

Hence, Charles babbage is considered as the “ Father of the computer “ .

The generation of computers are characterized by a major technological development that fundamentally changes the way computers operate, resulting in increasingly smaller , cheaper , more powerful and more efficient and reliable devices . The various generation of computers are listed below.

FIRST GENERATION ( 1946 – 1954 ) : In 1946 the digital computers using electronic valves ( Vaccum tubes ) are known as first generation computer . The first ‘ computer’ to use electronic valves ie. Vaccum tubes . The high cost of vaccum tubes prevented their use for main memory . They stored information in the form of propagating sound waves .

Mark I : The IBM Automatic sequence controlled calculator ( ASCC ) , called the mark I by Havard University ,was an electro – mechanical computer . Mark I is the first machine to successfully perform a long services of arithmetic and logical operation . Mark I is the first generation computer.

ENIAC : It was the first electronic computer built in 1946 at University of Pennsylvania , USA by john Eckert and john Mauchy . It was named Electronic Numerical Integrator and calculator ( ENIAC ) . The ENIAC was 30-50 feet long , weighted 30 tons, contained 18000 vaccum tubes , 70000 resisters ,10000 capacitors and required 150000 watts of electricity . Today computer is many times as powerful as ENIAC ,still size is very small.

EDVAC : It stand for Electronic Discrete variable automatic computer and was development in 1950 . The concept of storing data and instructions inside the computer was introduce here . This allowed much faster operation since the computer had rapid access to both Data and instructions . The other advantage of storing instructions wasn that computer could do logical decision internally . The EDVAC was a binary serial computer with automatic addition , subtraction , multiplication, programmed division and automatic checking with an ultrasonic serial memory.

EDSAC : It stand for Electronic deley storage automatic computer and was developed by M.V. Wilkes at Cambridge University in 1949 . The EDSAC is the first stored –program computer . The EDSAC performed arithmetic and logical operations without human interventions . The key to the success was in the stored instructions which it depended upon solely for its operation.

This machine marked the beginning of the computer age.

UNIVAC -1 : It stand for Universal automatic computer and it was the first commercial computer developed by United states in 1951 . The machine was 25 feet in length , contained 5600 tubes , 18000 crystal diodes , and 300 relays . It utilized serial circuity , 2.25 MHz bit rate , and an internal storage capacity 1000 words or 12000 characters.

The UNIVAC was used for general purpose comutting with large amounts of input and output. The UNIVAC was also the first computer to come equipped with a magnetic tape unit and was the first compter to use buffer memory.

Limitations of first generations computer

Following are the major drawbacks of first generation computers.

1. They used valves or vaccum tubes as their main electronic components .
2. They wre large in size , slow in processing and had less storage capacity
3. They consumed lots of electricity and produced lots of heat.
4. Their computing capabilities wre limited .
5. They wre not so accurate and reliable.
6. They used machine level language for programming .
7. They were very expensive.