

**CLASS : V**

**SUBJECT : COMPUTER**

**CHAPTER NUMBER:1**

**CHAPTER NAME :EVOLUTION OF COMPUTER**

**SUBTOPIC :EARLY IT INVENTORS, ENIAC, UNIVAC I, GENERATION OF COMPUTERS**

---

**CHANGING YOUR TOMORROW**

---

Website: [www.odmegroup.org](http://www.odmegroup.org)

Email: [info@odmps.org](mailto:info@odmps.org)

Toll Free: **1800 120 2316**

Sishu Vihar, Infocity Road, Patia, Bhubaneswar- 751024

## JOHN VON NEUMANN

- A modern type of computer came into existence with John von Neumann's development of software, writing in binary code.
- It was John von Neumann who started the practice of storing data and instructions in binary code, in the memory. Neumann joined hands with Presper Eckert (American electrical engineer) and John Mauchly (American physicist) in a consulting role and built EDVAC using binary code in 1950.
- EDVAC's concept of storing different programs on punched cards led to the advancement of computers that we know today.

## HOWARD AIKEN

- Howard Aiken was a primary engineer in IBM.
- He developed the first automatic sequence-controlled calculator, Mark I in 1944.
- This machine was capable executing long computations automatically.

## ENIAC

Electronic Numerical Integrator and Computer (ENIAC), the first general purpose electronic digital computer was invented by John Mauchly and J. Presper Eckert in 1946.

It consisted of 18,000 vacuum tubes and was 1000 times faster than Mark I.

It could add two large numbers in 200 microseconds.

# UNIVAC I

Universal Automatic Computer I (UNIVAC I) was the world's first commercially available computer, designed by J. Presper Eckert and John Mauchly in 1951. It was the first computer to handle both numeric and text data. It was also the first computer that was equipped with magnetic tape unit. It used buffer memory.

# GENERATIONS OF COMPUTERS

The evolution of the present day computer can be classified into generations of computers.

Generation/ Period	Data Input	Data Output	External Storage	Language	Examples
1 <sup>st</sup> 1940 – 1956	Punched Cards and Paper Tapes	Printouts	Magnetic Tapes	Machine, Assembly	UNIVAC, ENIAC, EDVAC
2 <sup>nd</sup> 1956-1963	Punched Cards and Paper tapes	Printouts	Magnetic Tapes	Fortran, Cobol, Basic, PL/1	IBM1400 and 700 series IBM 350
3 <sup>rd</sup> 1964-1971	Keyboard	Monitor	Magnetic Disks	Sophisticated OS were used, Pascal, Fortran, Cobol, RPG	IBM System-360 Apple 1, Altair
4 <sup>th</sup> 1972-Present	Keyboard, Mouse, Scanner etc.	Monitor, Printers, Speakers	Magnetic disks with higher capacity	Use of special software for maintaining large database RDBMS, C++ in 1985	CRAY ½ Apple II VAX 9000

## LEARNING OUTCOME:

Students will get knowledge about different generation of computers .

**THANKING YOU**  
**ODM EDUCATIONAL GROUP**