

**DATE :13-4-21**  
**SESSION : 1**  
**CLASS : V**  
**SUBJECT : COMPUTER**  
**CHAPTER NUMBER:1**  
**CHAPTER NAME :EVOLUTION OF COMPUTER**  
**SUBTOPIC :VARIOUS CALCULATING DEVICES,AND INVENTORS**

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**CHANGING YOUR TOMORROW**

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# LEARNING OBJECTIVE :

To provide knowledge about calculators and inventors before development of computer.

## 300-BC ABACUS

- Abacus was the first mechanical device used for calculations. It was developed in China.
- It was made up of a wooden frame with rods, each having beads.
- The frame was divided into two parts – Heaven and Earth.
- Each rod in Heaven has 2 beads and each rod in Earth had 5 beads.
- Abacus was used for addition, subtraction, multiplication, and division.



## PASCAL'S ADDING MACHINE

- Blaise Pascal, a French mathematician, invented an adding machine called Pascal's Calculator, at the age of 19, in the year 1642.
- It is used gears, wheels, and dials.
- On this machine, numbers were displayed by rotating the wheels, it was capable of performing addition and subtraction.
- The gear principle was further employed in many mechanical calculators, Taxi metre is a perfect example of a mechanical calculator.



## LEIBNIZ CALCULATOR

- Leibniz, the famous German mathematician improved on the Pascal's machine in 1671 to make the Leibniz calculator. It was a mechanical device.
- Apart from performing addition and subtraction, From here you can type content.



# EARLY IT INVENTORS

## CHARLES BABBAGE

Charles Babbage, a British mathematician, is considered as the Father of Computers.

He invented a working model of the mechanical computer called the Difference engine

in 1822 and the Analytical engine in 1833.

The Analytical Engine had five units – Input, Output, Store, Mill, and Control.

These units worked like the modern computer. All the computers that are used now a

days, are based on it.

## **AUGUSTA ADA LOVELACE**

- Lady Augusta Ada Lovelace, was an English mathematician and writer. She is chiefly known for her work on Charles Babbage's Analytical engine.
- She is considered as the First Programmer who suggested Binary Data storage ( 0 and 1) instead of decimal number system.

## **GEORGE BOOLE**

- George Boole was an English mathematician.
- He linked them with the binary number system and represented positive results by 1 and the negative ones by 0.
- This theory of Boolean Logic became the fundamental principle for the design of computer circuitry.

## DR HERMAN HOLLERITH

- Herman Hollerith, an American statistician, invented the Tabulating machine.
- This machine was capable of reading data, processing it, and giving the desired output.
- The input in this machine was given through punched cards.
- These punched cards were used to record and store data or information.

# LEARNING OUTCOME:

Students will get knowledge about early calculating devices as well as inventors.



**THANKING YOU**  
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