HISTORY OF COMPUTERS

Computer not just means as a hybrid device running on electricity. Computer means a device which helps to measure and calculate things in easy way.

The first counting device was invented and used by the primitive people. They used wood sticks, finished stones and bones as counting tools with their own logic and measurement units.

As the result of evolution of the Human brain the technology advanced as well and more computing devices were developed like Abacus, Napier's Bones, computers etc.

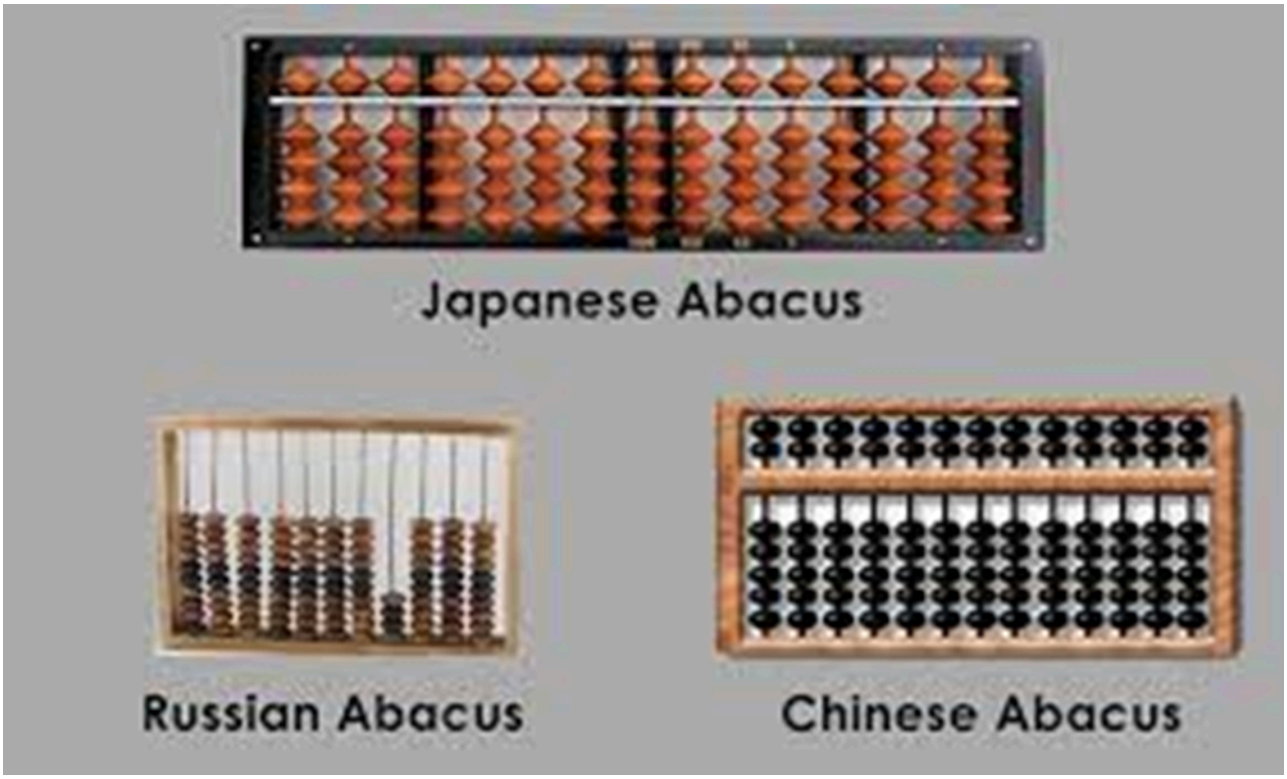
We also have history of those people who could calculate very fast also considered as Human Computer.

Famous devices which change the old way of computing and started a new era. These popular computing devices starting with the first to recent ones are mentioned below:

1. **Abacus**
2. **Napier's Bones**
3. **Pascaline**
4. **Stepped Reckoner or Leibnitz wheel**
5. **Difference Engine**
6. **Analytical Engine**
7. **Tabulating Machine**
8. **Differential Analyzer**
9. **Mark I**

ABACUS

1. It is believed that Chinese invented Abacus around 4,000 years ago.
2. Abacus is basically a wooden rack that has metal rods with beads mounted on them.
3. These beads are moved by the abacus operator according to some rules to perform arithmetic calculations.
4. Abacus has its own rules for arithmetic operations.
5. It is even used today to improve calculation speed.
6. China, Russia, and Japan native still use this device.
7. In India it is used by kids to improve their mathematical skills.



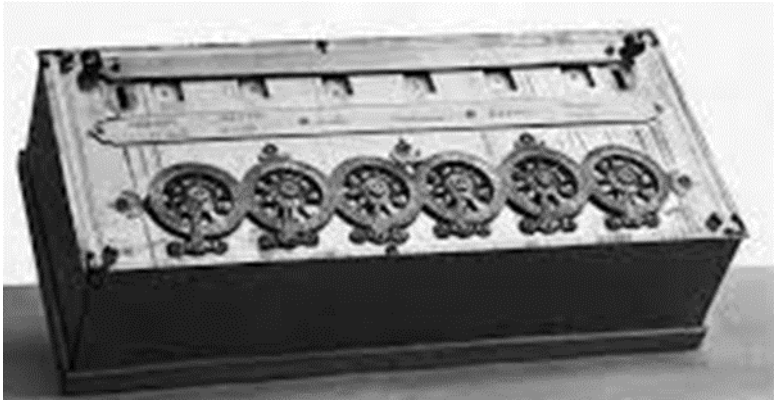
NAPIER'S BONES

1. Invented by John Napier (1550-1617) of Merchiston, it was a manually-operated calculating device.
2. This instrument used 9 separate ivory strips (bones) marked with numbers to multiply and divide.
3. It was the first machine which calculate using the decimal point system.



PASCALINE

1. Invented by a French mathematician-philosopher
2. Biaise Pascal, between 1642 and 1644, to help his father in calculation, a tax accountant.
3. It could only perform addition and subtraction.
4. Known as Arithmetic Machine or Adding Machine.
5. Considered as the first mechanical and automatic calculator.
6. It was basically a wooden box with a series of gears and wheels for user to manage.
7. User need to rotate the wheel.
8. When a wheel is rotated one revolution, it rotates the neighboring wheel and a series of windows is given on the top of the wheels to read the totals.
9. It was a great discovery.



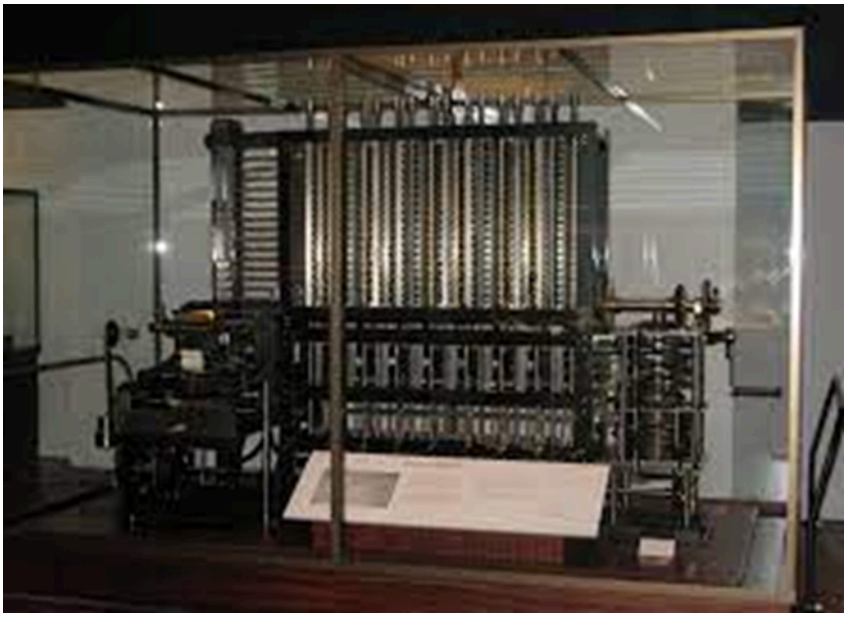
STEPPED RECKONER OR LEIBNITZ WHEEL

1. Developed by German mathematician-philosopher Gottfried Wilhelm Leibnitz in 1673.
2. He improved Pascal's invention to develop this machine.
3. It used fluted drums instead of gears.
4. It was a digital mechanical calculator known as the stepped reckoner.
5. This calculator can perform all 4 operations such as Addition, subtraction, Multiplication, division



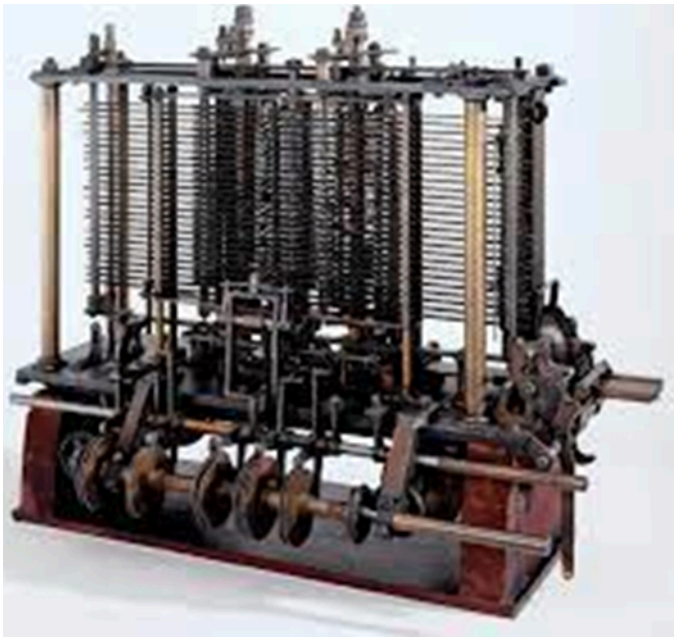
DIFFERENCE ENGINE

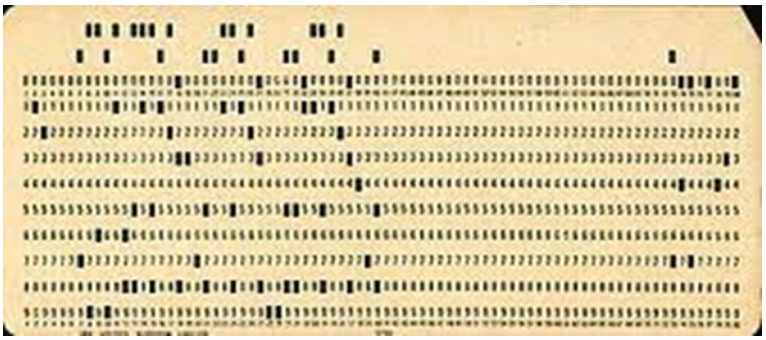
1. Designed by Charles Babbage in the starting of 1820s.
2. Charles Babbage is known as "Father of Modern Computer".
3. It was a mechanical computer.
4. It was driven by a steam engine. Which makes it pure mechanical.
5. It can perform simple calculations.
6. It considered as fails due to the lack of technology at the time, according to the University of Minnesota.



ANALYTICAL ENGINE

1. This was also developed by Charles Babbage in 1830.
2. It is also a mechanical computing machine.
3. Uses punch-cards as input.
4. It can solve any mathematical problem.
5. It can store information as a permanent memory.
6. Punch Cards was originally invented by Herman Hollerith.
7. In these holes are made following specific distance in between.
8. This format is similar like Binary Language.





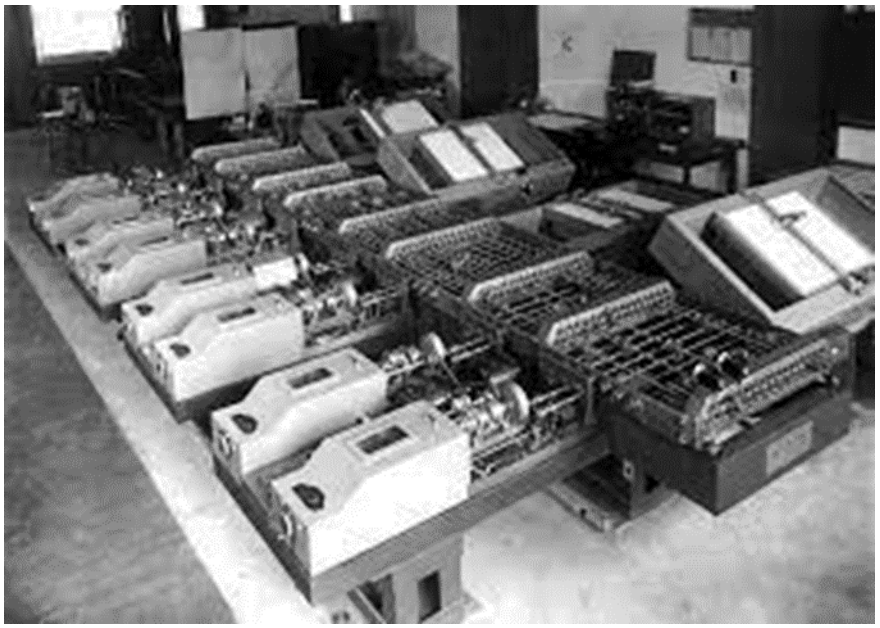
TABULATING MACHINE

1. Invented by an American statistician Herman Hollerith, in 1890.
2. It was a punch card-based mechanical tabulator.
3. It could compute statistics and record or sort data or information.
4. The electrical impulses are the main base of this machine.



DIFFERENTIAL ANALYZER

1. Invented by vannevar bush in 1930.
2. This was the first electrical computer.
3. This machine was made up of vacuum tubes that switch electrical impulses in order to do calculation.
4. This electrical impulse moves the mechanical gears.
5. The difference between impulses created multiple combinations.
6. It was capable of performing 25 calculations almost in a minute.



MARK I

1. Invented by Howard Aiken collaboration between IBM in 1944.
2. It was the first programmable digital computer.
3. Also called as Automatic Sequence Controlled Calculator (ASCC).
4. The Mark I had 60 sets of 24 switches for manual data entry.
5. It could store 72 numbers, each 23 decimal digits long.
6. It could do 3 additions or subtractions in a second.
7. A multiplication in 6 seconds, a division in 15.3 seconds, and a logarithm or a trigonometric function in almost over 1 minute.


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