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# WHAT IS A COMPUTER ?

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**E**VERYBODY should know something about computers. It is one of the wonders of modern science and a fairly recent invention which has now become essential in business life. It has greatly benefited the world and has brought about a revolutionary change.

The true ancestor of the modern computer was designed by an English Mathematician, Charles Babbage, in the 1830s. This machine called the Analytical Engine was never completed but it was intended to perform any mathematical calculation automatically by means of a mechanical device. His idea was put into practice in 1944 by Professor Howard Aiken of Harvard University who, in association with International Business Machines Corporation, completed the Automatic Sequence Controlled Calculator (ASCC) or Mark I. It was a mechanical computer and not an electronic one. The first electronic digital computer called the Electronics Numerical Integrater and Calculator (ENIAC) was completed in 1946 by a team of scientists at the university of Pennsylvania. It used 18,000 vacuum tubes and could work 200 times faster than Mark-I.

An electronical computer are of two basic types: Analog and Digital, analog computers deal with physical qualities, on the other hand, ditigal computers deal with numbers. Thus analog computers measure and digital computers count. Computers can also be classified according to their functions (1) special purpose computers and (2) general purpose computers.

Special purpose computers are designed to accomplish a single task, whereas general purpose computers have been designed to accept instructions for carrying out different tasks. For example one special purpose computer has been designed strictly to compute navigational calculations for ships and aircraft. The instructions for carrying out these tasks are built inside the electronic circuitry of that machine so that the navigator simply enters data into it and receives answers. By contrast, a general purpose computer used by a corporation might accomplish tasks relating to preparation of pay rolls, production schedules, analysis of financial marketing and engineering data, all in one day. Thus the general purpose computer has the flexibility of satisfying the needs of various users to solve different types of problems.

A modern digital computer has five distinct functional sections or units: Input, Memory (or storage), Control, Arithmatic logic and output.

Nowadays, computers are most widely employed in data processing, handling the vast paper work of industry, commerce and government. Modern banking would be impossible without computers. Computers keep accounts, process bank cheques, carry out fund transfers and other operations, and make instant updating of records. They keep track of inventories, airline reservations and movement of railway trains. They check income tax returns, have brought new speed and accuracy to weather forcasting. Computers are also being used in translating one language into another. Space exploration would be impossible without computers. Computers can play a vital role in the defense system of any country and practically do any mathematical task. They have taken over many jobs once performed by human hands.

We are passing through the fourth generation of computers and it is hoped that in its fifth generation, computers will be able to think and act independently.