Evolution of computers

The evolution of electronic computers over a period of time can be traced effectively dividing this period into various generations. Each generation is characterized by a major technological development that fundamentally changed the way computers operated. These helped to develop smaller, cheaper, powerful, efficient and reliable devices. Today, life has become indispensable without a computer. You find computerization in almost every sphere and industry. Computer evolution has been a fascinating process as we find out here. The generation of computers may be broadly lassified into 5 stages : 1.

World War gave rise to numerous developments and started off the computer age. Electronic Numerical Integrator and Computer (ENIAC) was produced by a partnership between University of Pennsylvannia and the US government. It consisted of 18, 000 vacuum tubes and 7000 resistors. It was developed by John Presper Eckert and John W. Mauchly and was a general purpose computer. " Von

Neumann designed the Electronic Discrete Variable Automatic Computer (EDVAC) in 1945 with a memory to hold both a stored program as well as data. " Von Neumann's computer allowed for all the computer functions to be controlled by a single source. Then in 1951 came the Universal Automatic Computer(UNIVAC I), designed by Remington rand and collectively owned by US census bureau and General Electric. UNIVAC amazingly predicted the winner of 1952, presidential elections, Dwight D. Eisenhower. In first generation computers, the operating instructions or programs were specifically built for the task for which computer was manufactured.

The Machine language was the only way to tell these machines to perform the operations. There was great difficulty to program these computers , and more when there were some malfunctions. The first generation of computers used vacuum tubes for circuitry and magnetic drums for memory. They were large in size, occupied a lot of space and produced enormous heat. They were very expensive to operate and consumed large amount of electricity. Input was based on punched cards and paper tape and output was displayed on print outs. First generation computers could solve only one problem at a time.