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# Different Generations of Computer Development

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History of computer development often referred as different generations of computer Scientist are continuously working to make computer processing faster ,inexpensive ,minimize size. So in early stage computers which occupy almost complete room , prone to failure now we can carry in small hand bag doing lot of complex tasks and operated with click of mouse

 History of computer development is broadly divided in five generations

First Generation: 1946-1959

### **Vacuum Tubes**

In first stage of computer development we used vacuum tubes. These vacuum tubes are slower in processing speed and used machine language which was hard to understand as instruction was in 0 and 1. These first generation computer was bigger in size even occupied entire room, generates lot of heat and was very expensive So these cant be used continuously for longer duration of time

Second Generation: 1959-1965

## **Transistor**

In second generation of computer we used transistors. In Second generation vacuum tubes was replaced with transistor. Second generation saw the improvement in speed and size but heat produced was still damaging to the system

Language used was assembly language , which means it was easy to understand as instructions consist of words.

Third Generation: 1964-1971

## **Integrated Circuits**

Third generation saw the used to integrated circuits. Transistor were miniaturized and put on chip to foam integrated circuit .Which was faster in processing speed, store instruction in memory and reduced in size. These extremely small electronics can perform calculations and store data using either digital or analog technology.

Fourth Generation: 1972-2010

### Microprocessor

Crucial stage in the development of computer was microprocessor . Intel was first to develop microprocessor. In microprocessor ten of millions of transistor fabricated on single chip which is very small in size and also have very high processing capabilities

Microprocessor support multiple task This generation saw the development of computer for home use developed by IBM.

Fifth Generation: 2010-Onwards

## **Artificial Intelligence**

Fifth generation saw the advent of artificial intelligence, features like voice recognition are made possible with artificial intelligence as machine able to respond in natural language and have capability to learn and organize themselves.

Fifth generation is still in development stage