**THE FOURTH GENERATION**

The history of [computer](https://www.webopedia.com/TERM/C/computer.html) development is a computer science topic that is often used to refer the different generations of computing [devices](https://www.webopedia.com/TERM/D/device.html). Each one of the five generations of computers are characterized by a major technological development that fundamentally changed the way computers operate. Most major developments from the 1940's to present day have resulted in increasingly smaller, cheaper, more powerful and more efficient computing devices. The five generations are:

1. First Generation: Vacuum Tubes (1940-1956)
2. Second Generation: Transistors **(1956-1963)**
3. Third Generation: Integrated Circuits **(1964-1971)**
4. Fourth Generation:  Microprocessors **(1971-Present)**
5. **Fifth Generation: Artificial Intelligence (Present and Beyond)**

## Today I am going to write about The Fourth Generation:

## It is amazing to see how computer has changed over the years from a computer that was as big as a room to a computer of the size of a hand but more powerful all thanks to the microprocessors. The [microprocessor](https://www.webopedia.com/TERM/M/microprocessor.html) brought the fourth generation of computers, as thousands of integrated circuits were built onto a single silicon chip.  Intel 4004 chip was the first microprocessor developed in 1971.

## It had all the components of the computer—from the [central processing unit](https://www.webopedia.com/TERM/C/CPU.html) and memory to input/output controls—on a single chip. The fourth-generation computers used LSI (Large Scale Integration) and VLSI (Very Large-Scale Integration) technology. Using LSI and VLSI technology thousands of transistors are integrated on a small silicon chip and this silicon chip is known as microprocessors. I believe that fourth generation was a revolutionary change in the field of technology as it connected masses with the computer world. This happened due to better features of fourth generation than the previous three generations.

## The first one is PORTABILITY. Due to this feature usage of computer has became quite easy in our day to day life. Notepads, smartphones, tablets etc are the master pieces of fourth generation.

## Second is EASY UNDERSTANDING. In these computers high level languages can be written which made programming easier as compared to when the programmes were written in machine language. Thus, it also increased the number of things we can do in a computer

## Next is LOW COST. Fourth generation computers release very less heat as compared to previous generations. Thus, it saves power and has a very low overall cost.

## DEVELOPMENTS THAT TOOK PLACE DURING FOURTH GENERATION:

1. Concept of internet was introduced
2. Great developments in the fields of networks

## All the high-level languages like C, C++, DBASE etc., were used in this generation.

## The speed, accuracy and reliability of the computers were improved.

## Development of GUIs, the mouse and handheld devices.

In 1981 IBM introduced its first computer for the home user, and in 1984 Apple introduced the Macintosh. Microprocessors also moved out of the realm of desktop computers and into many areas of life as more and more everyday products began to use microprocessors.

Some other computers of this generation were:

* DEC 10
* STAR 1000
* PDP 11
* CRAY-1(Super Computer)
* CRAY-X-MP (Super Computer)

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