

Fourth-Generation Computers (1971–present)

The fourth-generation computers, i.e. the present-day computers, are unique in the following ways:

- They use **microprocessors**, a type of very-large-scale integrated circuits (VLSIC), which contain all the components of a CPU on a single chip. The VLSICs perform the bulk of processing and control all parts of a system. The use of microprocessors resulted in decreased size and increased efficiency.
- They have much greater computing power and storage capacity than the earlier-generation computers.
- They use improved storage devices that are cheaper than the earlier ones.
- They can be linked together (i.e. networked) to share storage capacity, space, data, etc.

The **IBM PC** and **Apple Macintosh** are examples of fourth-generation computers.

In addition to the desktop or personal computers nowadays, laptops, palmtops, and tablets, which can be carried anywhere with ease, have become very common.

Till the fourth-generation computers, the major focus was, and has been, on reducing size and improving efficiency. This resulted in smaller, yet faster computers. However, the only drawback of these computers is the lack of ability to think, and one is attempting to achieve that in the so-called **fifth-generation computers**.

Did you Know?

Intel developed the first commercially available microprocessor called Intel 4004 in 1971.

Fifth-Generation Computers (1989–future)

The fifth-generation computers are referred to as **supercomputers**. Supercomputers have very high storage capacities, high speeds, and the ability to carry out highly sophisticated operations

The **CRAY CS300** series is an example of supercomputers.

Fifth-generation computing also involves artificial intelligence (AI). **Artificial intelligence** is a branch of Computer Science that aims to create computers that can think, behave, and react in the same way as humans do. The fifth-generation computers are expected to overcome the lack of thinking power in the earlier generations.

<https://www.youtube.com/watch?v=78-1MlkxyqI>

This is a link of video in which a robot is being interviewed.