

**GENERATION OF COMPUTER**

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The history of computer development is often referred to in reference to the different generations of computing devices.

Each generation of computer is characterized by a major technological development that fundamentally changed the way computers operate, resulting in increasingly smaller, cheaper, more powerful, more efficient and reliable devices.

**Generations**

A generation refers to the stat of improvement or adding new featuresand upgrade of computer technology. With each new generation computer gotten better, smaller and Faster. Then previous generation’s.

* It has been divided in to “ **FIVE GENRATIONS** ”
* 1st GENERATION: 1940 to 1956
* 2nd GENERATION: 1956 to 1963
* 3rd GENERATION: 1964 to 1971
* 4th GENERATION: 1971 to Present
* 5th GENERATION: Present and Beyond

**1st GENERATION**

The first computers used vacuum tubes for circuitry and magnetic drums for memory, and were often enormous, taking up entire rooms. These Computer were very expensive to operate

First generation computers relied on machine language, the lowest-level programming language understood by computers, to perform operations, and they could only solve one problem at a time. Input was based on punched cards and paper tape, and output was displayed on printouts.

The UNIVAC and ENIAC computers are examples of first-generation computing devices. The UNIVAC was the first commercial computer delivered to a business client, the U.S. Census Bureau in 1951.

VACUM TUBES

**2nd GENERATION**

Transistors replaced vacuum tubes and ushered in the second generation of computers. The transistor was invented in 1947 but did not see widespread use in computers until the late 1950s.

The transistor was far superior to the vacuum tube, allowing computers to become smaller, faster, cheaper, more energy-efficient and more reliable than their first-generation predecessors.

Though the transistor still generated a great deal of heat that subjected the computer to damage, it was a vast improvement over the vacuum tube. Second-generation computers still relied on punched cards for input and printouts for output.

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**3rd GENERATION**

The development of the integrated circuit was the hallmark of the third generation of computers.

Transistors were miniaturized and placed on silicon chips, called semiconductors, which drastically increased the speed and efficiency of computers.

with third generation computers through keyboards and monitors and interfaced with an operating system, which allowed the device to run many different applications at one time with a central program that monitored the memory.

Computers for the first time became accessible to a mass audience because they were smaller and cheaper than their predecessors.

3rd generation of computer

Integrated Circuits

**4th GENERATION**

The microprocessor brought the fourth generation of computers, as thousands of integrated circuits were built onto a single silicon chip.

What in the first generation filled an entire room could now fit in the palm of the hand.

The Intel 4004 chip, developed in 1971, located all the components of the computer—from the central processing unit and memory to input/output controls—on a single chip.

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.

As these small computers became more powerful, they could be linked together to form networks, which eventually led to the development of the Internet.

Fourth generation computers also saw the development of GUIs, the mouse and handheld devices.

4th generation Computers

**5th GENERATION**

Fifth Generation (Present and Beyond) Artificial Intelligence Fifth generation computing devices, based on artificial intelligence, are still in development,

though there are some applications, such as voice recognition, that are being used today. The use of parallel processing and superconductors is helping to make artificial intelligence a reality.

Quantum computation and molecular and nanotechnology will radically change the face of computers in years to come.

The goal of fifth-generation computing is to develop devices that respond to natural language input and are capable of learning and self-organization.

**Conclusion**

* As a result of the various improvements to the development of the computer we have seen the computer being used in all areas of life. It is a very useful tool that will continue to experience new development as time passes.
* Computers are used in various areas of our life. Education, entertainment, sports, advertising, medicine, science and engineering, government, office and home are some of the application areas of the computers.

**References**

The information I collected from these book and articles.

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Thank you.