## A Brief History of Operating Systems

These days, the operating systems have become an important part of all the technology which we are using on our laptops, computer systems or our mobile phones. To run them smoothly, we need operating systems for all of them. Operating systems are the set of programs that are required for providing the interface in between the different applications and the hardware of the computer systems or mobile phones. Operating systems have helped the devices to work properly and efficiently, increasing the performance of these different devices. In the past few years, operating systems have evolved a lot, making it easier to make use of both hardware and software.

## **Operating Systems History**

This might be surprising for many of you, but earlier the operating systems were not there. With the development of technology, operating systems have also been introduced. Earlier in the 1940s, the computer systems used to work on the programs. The users used to input these programs in the machine hardware by using the micro switches. Later on, in the year 1950, some new technologies were developed. They were introduced in order to make the interaction between the user and the computer system easier.

In the year 1956 the first operating system was introduced by General Motors in order to make the IBM mainframe computer run. The computer systems have been classified into 4 generations according to their architecture. The architecture of these computers is also related to the operating systems.

- The **1st Generation** Computers were introduced in the year 1940 and did not have any operating systems. Noone even thought of an operating system or would have heard about it. The digital computers at that time worked with the help of the programs only like we have mentioned above. There were no programming languages also at that time.
- Then in the **2nd Generation**, in the 1950s some improvement was brought: it was the time when the first operating systems were introduced. It was introduced for IBM 701. At that time there was the single-stream batch processing system. It was because the users used to submit data and programs in the batches or the groups.
- In the **3rd Generation**, in the 1960s, some advanced technologies were developed. The multiprogramming concept was introduced by the operating system designers. Many new techniques were introduced in the operating system. Due to the multiprogramming concept, several jobs were done at the same time. When a job was waiting for the Input-Output Operation, at the same time the CPU was used by another job, unlike the old operating system without the multiprogramming feature. The operating systems in the 3rd generation were made in such a way that all the programs can run at a fast speed and can get completed fast. It also made the other programs initiate and start soon which are waiting to run. The time-sharing feature was also introduced in the 3rd generation operating system. To multi-program the interactive users in large numbers, the time-sharing technique was made.
- In the **4th Generation**, the operating systems were used in personal computers also. This was made possible by the Large-Scale Integration Circuits Development. Some of the operating systems which were used at that time are UNIX and MS-DOS.

Nowadays, there are many operating systems which are in use like Linux and Microsoft Windows. For mobile phones also, we have operating systems like Android and IOS. Most of us are using the Windows Operating System, which was introduced in the year 1985.

There are different types of operating systems which are being used these days like Real-Time Operating System, Multiprocessing Operating System, Multitasking /Time Sharing Operating System, Network Operating System, and Mobile Operating System.