Computer multitasking

What is computer multitasking?

the running of two or more programs (sets of instructions) in one computer at the same time. Multitasking is used to keep all of a computer's resources at work as much of the time as possible. It is controlled by the operating system (q.v.), which loads programs into the computer for processing and oversees their execution until they are finished.

Multitasking description.

competing demands of various programs in a variety of ways. Two programs can be executed on a small computer using a foreground/background system, in which the computer executes the instructions of one program only in between the times it devotes to running another program of higher priority.
Such a system makes use of idle times in some tasks, such as the minute delays between keyboard entries, to execute instructions in the background program. In many multitasking operations, a computer's microprocessors switch their attention back and forth between different programs in fractions of seconds.

How invited computer multitasking?

To the user, the advantage of multitasking is the ability to have several applications open and working at the same time. For example, a user can edit a file with one application while another application is recalculating a spreadsheet.
There there were many machines designed to perform spesific tasks, however, the Mark I was the first computer programmed to do multiple computing tasks. It was created by Howard Aiken, a Harvard professor, in 1944. It was known as the first PC or personal computer. The Mark I was finaced by IBM and was about 50 feet long and 8 feet tall.
Another all purpose computer called the ENIAC (Electronic Numerical Integrator and Computer), was built in 1946 by J.Presper Echert and John Mauchly. It was a thousand times faster than the Mark I and a math problem, that would normally take 40 hours for one person to finish, was completed in 20 seconds by the ENIAC! The ENIAC was also used to calculate the design for the hydrogen bomb for World War II. This machine was even larger than the Mark I, 100 feet long by 10 feet tall. The Mark I and ENIAC could perform multiple tasks or programs, but only with rewiring.
Finally, a man named John von Neumann developed software written in binary code to store data and instructions/programs. A computer called the EDVAC (Electronic Discrete Variable Computer) was built using this binary code in 1950. The EDVAC was able to store differnet programs without rewiring which led to the computers we have today.

Multitasking description.

Multitasking involves overlapping and interleaving the execution of several programs. This is often achieved by capitalizing on the difference between a computer's rapid processing capacity and the slower rates of its input/output devices. While the computer is reading data from a magnetic disk at a fairly limited rate, for example, its powerful central processor can execute at high speed another program that involves extensive calculations but very little input. Operating systems coordinate the competing demands of various programs in a variety of ways. Two programs can be executed on a small computer using a foreground/background system, in which the computer executes the instructions of one program only in between the times it devotes to running another program of higher priority.

What is the advantages of computer multitasking?

To the application developer, the advantage of multitasking is the ability to create applications that use more than one process and to create processes that use more than one thread of execution. For example, a process can have a user interface thread that manages interactions with the user (keyboard and mouse input), and worker threads that perform other tasks while the user interface thread waits for user input. If you give the user interface thread a higher priority, the application will be more responsive to the user, while the worker threads use the processor efficiently during the times when there is no user input.

What is the disadvantages of computer multitasking?

Computer can run programs slowly due to slow speed of their processors, and its response time can increase while handling multiple programs. Need better processing power, to overcome this problem.

CPU Heat up

Multiple processors become busier at a time for executing any task in multitasking nature, So CPU produces more heat.

Examples of Multitasking Operating System.

There are some examples of multi tasking OS like as –

Windows XP
Windows Vista
Windows 7
Windows 8
Windows 10
Windows 2000
IBM's OS/390
Linux
UNIX