
Introduction to Computer Software

Software & Hardware?

- Computer Instructions or data, anything that can be stored electronically is **Software**.
- Hardware is one that is tangible. The storage devices (Hard disk, CD's etc.), mouse, keyboard CPU and display devices (Monitor) are **Hardware**.

For example: There is a problem in the Software implies
– Problem with program or data

Types of Software

- System Software
 - Application Software
 - Utility Software
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System Software:

System Software includes the Operating System and all the utilities that enable the computer to function.

System software is a term referring to any computer software which manages and controls the hardware so that application software can perform a task.

Example:

Operating Systems, Compiler, Loader, Linker, Interpreter.

Application Software:

Application Software includes programs that do real work for user.

Example:

Payroll systems, Inventory Control, Manage student database, Word Processor, Spreadsheet and Database Management System etc.,

Utility Software

Utility software consists of programs which are designed to help with the maintenance of the computer and to ensure sure that it works correctly and efficiently.

e.g. disk defragmenter, anti-spyware tools, firewall.

Operating System:

- Operating System is a software, which makes a computer to actually work.
 - It is the software that enables all the programs we use.
 - The OS organizes and controls the hardware.
 - OS acts as an interface between the application programs and the machine hardware.
 - Examples: Windows, Linux, Unix and Mac OS, etc.,
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Operating System functions:

- Interpreting User Commands
 - File Management
 - Memory Management
 - Input/Output Management
 - Managing Processes
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Assembler: An Assembler is a program that reads a program in assembly language and translates into an equivalent program into machine language and vice versa.

Compiler: A compiler is a program that reads a program in high level language and translates the whole program into an equivalent program in machine language at once and vice versa.

Interpreter: An **interpreter** is a program that reads a program in high level language and translates into an equivalent program in machine language one line at a time and vice versa.

VIRUS

A virus is a program or programming code that replicates by being copied or initiating its copying to another program, computer boot sector or document.

A virus cannot be spread without a human action, (such as running an infected program) to keep it going.

Antivirus examines a computer system to find virus.

A good antivirus will constantly work in the background checking for signs of virus activity.

Worms

Worms spread from computer to computer and, unlike a virus, have the ability to travel without any help from a person

A worm does not alter files but resides in active memory and replicates. Worms use parts of an operating system that are automatic and usually invisible to the user.

Thank You
