Lab 2

Microsoft Windows

Microsoft Windows is a series of operating systems developed by Microsoft Corporation to run personal computers (PCs). Microsoft Windows is based on **graphical user interface (GUI)**.

GUI is a method of interaction with a computer that uses pictorial buttons (icons) and command lists controlled by a mouse and keyboard. We select buttons and command lists to execute some specific task. It is generally regarded as simpler as and easier to learn than **command line interfaces (CLI)** or **command user interface (CUI)**, where commands have to be typed. CLI is a mechanism for interaction with a computer by typing commands to perform specific tasks. In CLI, a command line interpreter receives, analyses, and executes the requested command. Upon completion, the command returns the summary of the operation in the form of text lines on the CLI.

Now, Microsoft Windows has dominated the PC market. Approximately **90** percent of PCs run some version of Windows. The first version of Windows, released in 1985, was simply a GUI offered as an extension of Microsoft disk operating system (MS-DOS). Examples of Microsoft windows are Windows 286, Windows 386, Windows 3.0 and 3.11, Windows 95, Windows 98, Windows NT, Windows 2000, Window s XP, Windows Vista etc.

**Advantages**

 It has GUI (Graphical User Interface).

 It is user friendly and easy to use.

 Programs that run under Windows are very user friendly.

 We do no need to remember commands and parameters for operations.

 It has higher security.

 It includes different easy to use system tools or utility programs to increase the performance of your computer system.

Windows System Tools

These are also called utility programs. For a smooth performance of your computer system, periodic maintenance is necessary. Here we use different system tools like Disk Defragmenter, Disk Cleanup, and Scandisk etc. These tools increase the performance of your computer system. Some of the tools are described below.

**Disk Defragmenter**

Disk gets fragmented as users create and delete files and folders in a computer. When a file or a folder is deleted from the hard disk, the space that was occupied by it will be used to store any new files. When a file gets saved, it uses the first contiguous free space that is large enough for the file and the remaining part of the file is saved in the next available free space.

The fragmented disk brings down the performance of the system and it takes a long time to retrieve the fragmented data from the disk even if the CPU or the memory is more than sufficient. Hence, periodic disk defragmentation is necessary to keep up the performance of the system. **Disk Defragmenter** is a tool that rearranges the data on your hard disk and reunites fragmented files so your computer can run more efficiently. Disk defragmentation describes the process of consolidating fragmented files on your computer's hard disk.

You can run Disk Defragmenter tool by following the path **start**  **all programs**  **accessories**  **system tools**  **disk defragmenter** in Windows XP.

**Disk Cleanup**

If you want to reduce the number of unnecessary files on your hard disk to free up disk space and help your computer run faster, use Disk Cleanup. It removes temporary files, empties the Recycle Bin, and removes a variety of system files and other items that you no longer need. Using Disk Cleanup increases the free space of the hard disk in your computer system.

You can run Disk Cleanup tool by following the path **start**  **all programs**  **accessories**  **system tools**  **disk cleanup** in Windows XP.

**Scandisk**

It is utility in MS-DOS and Microsoft Windows systems which checks and repairs file systems and bad clusters on the hard drive. It was introduced in MS-DOS version 6.2. Previous versions of MS-DOS supplied only the simpler, purely text-based program CHKDSK. Scandisk included a more user-friendly interface than MS-DOS CHKDSK. It has the ability to detect and sometimes recover from physical errors on the disk.

In Windows 95 onwards, Scandisk also had a graphical user interface. Scandisk can‟t check NTFS disk drivers and therefore is not available for computers running Windows 2000, Windows XP etc. In these versions, a newer CHKDSK is provided instead.