Lab 1

MS-DOS (Microsoft Disk Operating System)

* Dos means Disk operating system. It is a single user interface. It introduced in 1981(Microsoft & IBM).It is also known as CUI (Character User Interface).It is a text based interface.

In MS-DOS there are two types of commands: **internal** and **external**. Some internal commands are given below.

**EXIT**

This is an internal command. This command quits the command interpreter. For example, **C:\>exit**.

**CLS**

This is an internal command. This command is used to clear the screen. For example, **C:\>cls**.

**CD** or **CHDIR**

This is an internal command. This command is used to display the name of current directory and to change the current directory. Its general form is **cd [drive:] [path]**. For example,

 **C:\windows>cd** displays the name of current directory

 **C:\>cd D:** displays the working directory on D:

 **C:\>cd D:\backup** changes the working directory on D: to backup

 **C:\>cd windows** changes the working directory from C: to windows

 **C:\windows\system32>cd..** changes the current working directory to the parent directory (up one directory level)

 **C:\windows\system32>cd\** changes the current working directory to the root (top level) directory of the current drive.

 **Note:** We can change a drive by using the drive name followed by colon. For example, C:\>D: changes drive from C to D.

**DIR**

This is an internal command. This command displays a list of files and subdirectories in a directory. Its general form is **dir [drive:] [path] [filename] [parameters]**. For example,

 **C:\>dir D:\backup** displays all the files and subdirectories in the backup directory in D drive.

 **C:\>dir** displays all the files and directories in the current directory. In this case, the current directory is called main or **root** directory.

 We can use **/p** parameter with dir command to view the directory one screen at a time. For example, **C:\> dir windows /p** or **C:\windows>dir/p**.

 We can also use **/w** parameter with dir command to view the directory in a wide list format. For example, **C:\windows>dir/w**.

 We can also use both **/p** and **/w** parameters at the same time. For example, **C:\windows>dir/p/w**.

 Use **/s** attribute to view the contents of a specified directory and all subdirectories.

**MD** or **MKDIR**

This is an internal command. This command is used to create a new directory. Its general form is **md [drive:] [path] directoryname(s)**. For example,

 **C:\>md D:\backup** creates a new directory backup in D: drive

 **C:\user>md BBA** creates a new directory BBA in current working directory

**RD** or **RMDIR**

This is an internal command. This command is used to remove (delete) a directory. Its general form is **rd [drive:] [path] directoryname(s)**. For example,

 **C:\>rd D:\backup** deletes backup directory in D: drive if it is empty.

 **C:\user>rd BBA** deletes BBA directory in current working directory if it is empty.

 We can use **/s** parameter to remove all subdirectories and files in the specified directory in addition to the directory itself. For example, **C:\user>rd /s BBA**.

 We can also use **/q** parameter with **/s.** In this case, the system do not ask if ok to remove the directory tree. For example, **C:\user>rd /s/q BBA**.

**COPY CON**

This is an internal command. This command is used to create a file. Its general form is **copy con [drive:] [path] filename**. For example,

 Type **C:\>copy con D:\backup\test.txt**, type some message, press F6 and then enter key. This process creates a file named test.txt in backup directory in D: drive.

 Type **C:\user>copy con best.txt**, type some message, press F6 and then enter key. This process creates a file named best.txt in directory user.

**TYPE**

This is an internal command. This command is used to display the contents of a file. Its general form is **type [drive:] [path] filename**. For example,

 **C:\>type D:\backup\test.txt** displays the contents of the file test.txt in backup directory in D: drive.

 **C:\user>type best.txt** displays the contents of the file best.txt in the directory user.

**MORE**

This is an external command. This command is used to display the contents of a file one screen at a time. Its general form is **more [drive:] [path] filename**. For example,

 **C:\>more D:\backup\test.txt** displays the contents of the file test.txt in backup directory in D: drive one screen at a time.

 **C:\user>more best.txt** displays the contents of the file best.txt in the directory user one screen at a time.

**EDIT**

This is an external command. This command is used to change the contents of existing file. Its general form is **edit [drive:] [path] filename**. For example,

 **C:\>edit D:\backup\test.txt** is used to change the contents of the file test.txt in backup directory in D: drive.

 **C:\user>edit best.txt** is used to change the contents of the file best.txt in the directory user.

 **Note:** After editing, choose **File**  **Save** and **File**  **Exit**.

**DEL** or **ERASE**

This is an internal command. This command is used to delete a file. Its general form is **del [drive:] [path] filename(s)**. For example,

 **C:\>del D:\backup\test.txt** is used to delete the file test.txt in backup directory in D: drive.

 **C:\user>del best.txt** is used to delete the file best.txt in the directory user.

 We can also use directoryname instead of filename(s). In this case, all the files within the directory are deleted.

 We can also use wildcards instead of filename(s). Here \*.\* removes all files, \*.txt removes all files with extension “txt”, and test.\* removes all files with name “test”. For example, **C:\user>del \*.txt** deletes all files with extension “txt” in the user directory in C: drive.

**REN** or **RENAME**

This is an internal command. This command is used to rename files and directories. Its general form is **ren [drive:] [path] filename1 filename2**. For example,

 **C:\>ren D:\backup\test.txt best.txt** is used to rename the file test.txt in backup directory in D: drive to bext.txt.

 **C:\user>ren test.txt best.txt** is used to rename the file text.txt in the user directory to best.txt.

 We can also rename directories instead of files. For example, **C:\user>ren BBA BCIS** renames BBA directory in the user directory to BCIS.

**COPY**

This is an internal command. This command is used copy one or more files from one directory to another. Its general form is **copy source destination**. For example,

 **C:\user>copy text.txt D:\backup\best.txt** is used to copy the file test.txt from user directory in C: drive to the backup directory in D: drive with its name changed to best.txt.

 **C:\user>copy text.txt D:\backup** is used to copy the file test.txt from user directory in C: drive to the backup directory in D: drive.

 We can also use wildcards instead of filename. Here \*.\* copies all files, \*.txt copies all files with extension “txt”, and test.\* copies all files with name “test”. For example, **C:\user>copy \*.txt D:\backup** copies all files with extension “txt” in the user directory in C: drive to backup directory in D: drive.

**MOVE**

This is an internal command. This command is used move one or more files from one directory to another. Its general form is **move source destination**. For example,

 **C:\user>move text.txt D:\backup\best.txt** is used to move the file test.txt from user directory in C: drive to the backup directory in D: drive with its name changed to best.txt.

 **C:\user>move text.txt D:\backup** is used to move the file test.txt from user directory in C: drive to the backup directory in D: drive.

 We can also use wildcards instead of filename. Here \*.\* moves all files, \*.txt moves all files with extension “txt”, and test.\* moves all files with name “test”. For example, **C:\user>move \*.txt D:\backup** moves all files with extension “txt” in the user directory in C: drive to backup directory in D: drive.

**XCOPY**

This is an external command. This command is used copy files and directory tree. Its general form is **xopy source destination**. For example,

 **C:\>xcopy user D:\backup** is used to copy files and directory tree from user directory in C: drive to the backup directory in D: drive.

 We can use **/s** parameter to copy directories and subdirectories except empty ones and **/e** parameter to copy directories and subdirectories including empty ones. For example, **C:\>xcopy user D:\backup /s** copies files and directory tree from user directory in C: drive to the backup directory in D: drive except empty directories and subdirectories.

**TIME**

This is an internal command. This command is used to display or set the system time. Its general form is **time [/t | time]**. For example,

 **C:\>time** is used to display the current time setting and a prompt for a new one. Press ENTER to keep the same time.

 **C:\>time /t** is used to display the current time, without prompting for a new time.

 **C:\>time 12:25:30** is used to set a time 12:25:30 without prompting.

**DATE**

This is an internal command. This command is used to display or set the system date. Its general form is **date [/t | date]**. For example,

 **C:\>date** is used to display the current date and a prompt for a new one. Press ENTER to keep the same date.

 **C:\>date /t** is used to display the current date, without prompting for a new date.

 **C:\>date 01/03/2010** is used to set a date 01/03/2010 without prompting.

**COLOR**

This is an internal command. This command is used set default console background and foreground colors. Its general form is **color [attributes]**. Attributes are specified by TWO hex digits – the first corresponds to the background and the second the foreground. Each digit can be any of the following values: 0 = Black, 1 = Blue, 2 = Green, 3 = Aqua, 4 = Red, 5 = Purple, 6 33 = Yellow, 7 = White, 8 = Gray, 9 = Light Blue, A = Light Green, B = Light Aqua, C = Light Red, D = Light Purple, E = Light Yellow, F = Bright White. For example,

 **C:\>color 01** produces black background and blue foreground colors.

 **C:\>color** restores the color to what it was when DOS started.

**TITLE**

This is an internal command. This command is used set the window title for the command prompt window. Its general form is **title [string]**. For example,

 **C:\>title Nawaraj** sets the title Nawarej for the command prompt window.

**VER**

This is an internal command. This command displays the windows version. Its general form is **ver**. For example,

 **C:\>ver** displays the windows version.

**VOL**

This is an internal command. This command displays the disk volume label and serial number, if they exist. Its general form is **vol [drive:]**. For example,

 **C:\user>vol** displays disk volume label and serial number of C: drive.

 **C:\>vol D:** displays disk volume label and serial number of D: drive.

**LABEL**

This is an external command. This command is used to display, create, change or delete the volume label of a disk. Its general form is **label [drive:] [label]**. For example,

 **C:\>label** displays disk volume label and serial number of C: drive. We can also create new label and delete existing label.

 **C:\>label D:** displays disk volume label and serial number of D: drive. We can also create new label and delete existing label.

 **C:\>label System** sets the disk volume label of C: drive to System.

 **C:\>label D: Backup** sets the disk volume label of D: drive to Backup.

**ATTRIB**

This is an external command. This command is used to display or change file and directory attributes. Its general form is **attrib [+R | -R] [+A | -A] [+S | -S] [+H | -H] [drive:] [path] filename(s)**. Here, **+** sets an attribute, **-** clears an attribute, **R** is read-only file attribute, **A** is archive attribute, **S** is system attribute, and **H** is hidden attribute. For example,

 **C:\>attrib +H +A D:\backup\test.txt** sets the file attribute of text.txt file in backup directory in D: drive to hidden and achieve.

 **C:\user>attrib -H test.txt** clears hidden attribute of best.txt in user directory.

 We can also use wildcards with **attrib** command. For example, **C:\user>attrib –H \*.txt** clears hidden attribute of all text files in user directory in C: drive.

**HELP**

This is an external command. This command is used to provide help information for DOS commands. Its general form is **help [command]**. For example,

 **C:\>help cd** provides help information for **cd** command.

 **C:\>help** displays a list of DOS commands.

**PROMPT**

This is an internal command. This command is used to change the command prompt. Its general form is **prompt [text]**. Here, text specifies new command prompt. We can also use special codes in place of text. We can use $A for & (ampersand), $B for | (pipe), $C for ( (left parenthesis), $D for current date, $E for escape code, $F for ) (right parenthesis), $G for > (greater than sign), $H for backspace, $L for < (less than sign), $N for current drive, $P for current drive and path, $Q for = (equal sign), $S for space, $T for current time, $V for windows version number, $ for carriage return and linefeed, and $$ for $ (dollar sign). For example,

 **C:\>prompt hello** changes the command prompt to “hello”.

 **C:\>prompt $D** changes the command prompt to current date.

**TREE**

This is an external command. This command graphically displays the directory structure of a drive or path. Its general form is **tree [drive:] [path]**. For example,

 **C:\>tree D:\backup** displays the directory structure of backup directory in D: drive.

 **C:\user>tree** displays the directory structure of user directory in C: drive.

 We can also use **/f** option to display the names of the files in each directory. For example, **C:\user>tree /f** displays the directory structure and names of the files of user directory in C: drive.

**CHKDSK**

This is an external command. This command checks a disk and displays a status report. Its general form is **chkdsk [drive:]**. For example,

 **C:\user>chkdsk** checks C: drive and displays status report.

 **C:\user>chkdsk D:** checks D: drive and displays status report.

 We can use **/f** option to fix errors on the disk. For example, **C:\user>chkdsk /f** checks C: drive and fixes errors found.

 We can also use **/r** option to locate bad sectors and recover readable information.

**FORMAT**

This is an external command. This command formats a disk for use with windows. Its general form is **format drive:** For example,

 **C:\user>format D:** formats D: drive.

 We can use **/q** option to perform quick format. For example, **C:\user>format D: /q** performs quick format on D: drive.

 We can use **/fs:filesystem** option to specify the file system to use. For example, **C:\user>format D: /fs:NTFS** to specify NTFS filesystem to D: drive. Other filesystems are FAT and FAT32.

 We can use **/v:label** option to specify the volume label. For example, **C:\user>format D: /v:backup** to specify volume label of D: drive to backup.

**SYSTEMINFO**

This is an external command. This command displays information about the computer and operating system of your computer. Its general form is **systeminfo**. For example,

 **C:\user>systeminfo** displays information about your computer system.

**SCANDISK**

This is an external command. This command checks disks for any disk errors. Its general form is **scandisk [drive:] [path] filename**. For example,

 **C:\user>scandisk D:\bakkup\test.txt** checks the file text.txt in backup directory in D: drive for errors.

 **C:\user>scandisk** checks the C: drive for errors.

 We can use **/all** option to check and repair all local drives at once. For example, **C:\user>scandisk /all**.

 We can use **/checkonly** option to check drives for errors but not to make repairs.

 We can use **/autofix** option to fix errors without asking you first.

**DISKCOPY**

This is an external command. This command copies the contents of one floppy disk to another. Its general form is **diskcopy [drive1: [drive2:]] [/v]**. **/v** option verifies that the information is copied correctly. For example,

 **C:\user>diskcopy A: B: /v** copies the contents of disk in drive A: to the disk in drive B: and verifies that the information is copied correctly.

 You can specify the dame drive drive1 and drive2. For example **C:\user>diskcopy A: /v** copies the contents of disk in drive A: to the disk in drive A: and verifies that the information is copied correctly.

**DELTREE**

This is an external command. This command deletes a directory including all files and subdirectories that are in it. Its general form is **deltree [/Y] [drive:] [path]**. **/y** option carries out the DELTREE command without providing a prompt to confirm the deletion. For example,

 **C:\user>deltree D:\backup** deletes the backup directory in D: drive with a prompt to confirm the deletion.

 **C:\>deltree /y user** deletes the user directory in C: drive without a prompt to confirm the deletion.

**SYS**

This is an external command. This command is used to copy the system files (command.com, io.sys, msdos.sys, and drvspace.bin) from one drive to another drive, allowing that drive to be bootable. Its general form is **sys [drive1:][path] drive2:** Here, [drive1:][path] specifies the location of the system files and drive2: specifies the drive the files are to be copied. For example,

 **C:\>sys A:** copies the system files to A: making the disk bootable.

**MEM**

This is an external command. This command displays amount of used and free memory in your computer system. Its general form is **mem**. For example,

 **C:\>mem** displays memory status in your computer.

**DOS Advantages**

 It takes less space than windows operating system.

 It is very fast even on relatively slow machines.

 It addresses hardware directly.

 It is very stable operating system.

 Its commands are simple to remember and use.

 It is very portable. We can move it in diskettes.

 It is free operating system. We can get it for free through Internet.

 Programs that run under DOS are faster and take less disk space than windows programs.

**DOS Disadvantages**

 It has no GUI (Graphical User Interface).

 It is more difficult to use than windows.

 Programs that run under DOS are not very user friendly.

 We need to remember commands and parameters for each operation.

 It has no security.