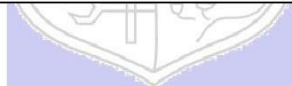




Experiment No. 10

Title: DOS Commands



Batch: B2**Roll No: 16010420117****Experiment No: 10****Aim:** To explore basic DOS commands.**Resources needed: Windows OS****Theory:****Pre lab/Prior concepts:**

Students have to execute the following MS-DOS commands and record the output. It is not necessary that all of the below mentioned commands will work.

Command	Description	Type
ansi.sys	Defines functions that change display graphics, control cursor movement, and reassign keys.	File
append	Causes MS-DOS to look in other directories when editing a file or running a command.	External
arp	Displays, adds, and removes arp information from network devices.	External
assign	Assign a drive letter to an alternate letter.	External
assoc	View the file associations.	Internal
at	Schedule a time to execute commands or programs.	External
atmadm	Lists connections and addresses seen by Windows ATM call manager.	Internal
attrib	Display and change file attributes.	External
batch	Recovery console command that executes several commands in a file.	Recovery
bcdedit	Modify the boot configuration data store.	External
bootcfg	Recovery console command that allows a user to view, modify, and rebuild the boot.ini file.	Recovery
break	Enable and disable Ctrl+C feature.	Internal
cacsl	View and modify file ACL's.	External

call	Calls a batch file from another batch file.	Internal
cd	Changes directories.	Internal

chcp	Supplement the international keyboard and character set information.	External
chdir	Changes directories.	Internal
chkdsk	Check the hard drive running FAT for errors.	External
chkntfs	Check the hard drive running NTFS for errors.	External
choice	Specify a listing of multiple options within a batch file.	External
clip	Redirect command line output to the Windows clipboard.	External
cls	Clears the screen.	Internal
cmd	Opens the command-line interpreter called COMMAND.COM.	Internal
color	Change the foreground and background color of the MS-DOS window.	Internal
command	Opens the command interpreter.	Internal
comp	Compares files.	External
compact	Compresses and uncompress files.	External
control	Open Control Panel icons from the MS-DOS prompt.	External
convert	Convert FAT to NTFS.	External
copy	Copy one or more files to an alternate location.	Internal
ctty	Change the computer's input/output devices.	Internal
date	View or change the systems date.	Internal
debug	Debug utility to create assembly language programs to modify hardware settings.	External
defrag	Re-arrange the hard drive to help with loading programs.	External
del	Deletes one or more files.	Internal
delete	Recovery console command that deletes a file.	Internal
deltree	Deletes one or more files or directories.	External
dir	List the contents of one or more directory.	Internal

Recovery console command that disables
Windows system services or drivers.

Recovery

diskcomp Compare a disk with another disk.

External

diskcopy	Copy the contents of one disk and place them on another disk.	External
doskey	Command to view and execute commands that were ran in the past.	External
dosshell	A GUI to help with early MS-DOS users.	External
driverquery	Display a list of installed device drivers.	External
drivparm	Enables overwrite of original device drivers.	Internal
echo	Displays messages and enables and disables echo.	Internal
edit	View and edit files.	External
edlin	View and edit files.	External
emm386	Load extended memory manager.	External
enable	Recovery console command to enable a disable service or driver.	Recovery
endlocal	Stops the localization of the environment changes enabled by the setlocal command.	Internal
erase	Erase files from the computer.	Internal
exit	Exit from the command interpreter.	Internal
expand	Expand a Microsoft Windows file back to its original format.	External
extract	Extract files from the Microsoft Windows cabinets.	External
fasthelp	Displays a listing of MS-DOS commands and information about them.	External
fc	Compare files.	External
fdisk	Setup drive by create and managing partitions on the hard drive.	External
find	Search for text within a file.	External
findstr	Searches for a string of text within a file.	External
fixboot	Writes a new boot sector.	Recovery
fixmbr	Writes a new boot record to a disk drive.	Recovery

for	Boolean used in batch files.	Internal
format	Command to erase and prepare a disk drive.	External
ftp	Command to connect and operate on an FTP server.	External

fType	Displays or modifies file types used in file extension associations.	Recovery
goto	Moves a batch file to a specific label or location.	Internal
graftabl	Show extended characters in graphics mode.	External
help	Display a listing of commands and brief explanation.	External
if	Allows for batch files to perform conditional processing.	Internal
ifshlp.sys	32-bit file manager.	External
ipconfig	Network command to view network adapter settings and assigned values.	External
keyb	Change layout of keyboard.	External
label	Change the label of a disk drive.	External
lh	Load a device driver in to high memory.	Internal
listsvc	Recovery console command that displays the services and drivers.	Recovery
loadfix	Load a program above the first 64 k.	External
loadhigh	Load a device driver in to high memory.	Internal
lock	Lock the hard drive.	Internal
logoff	Logoff the currently profile using the computer.	External
logon	Recovery console command to list installations and enable administrator login.	Recovery
map	Displays the device name of a drive.	Recovery
md	Command to create a new directory.	Internal
mem	Display memory on system.	External
mkdir	Command to create a new directory.	Internal
mklink	Creates a symbolic link.	Internal
mode	Modify the port or display settings.	External
more	Display one page at a time.	External

move

Move one or more files from one directory to another directory.

Internal

msav

Early Microsoft virus scanner.

External

msd	Diagnostics utility.	External
mscdex	Utility used to load and access the CD-ROM.	External
nbtstat	Displays protocol statistics and current TCP/IP connections using NBT.	External
net	Update, fix, or view the network or network settings.	External
netsh	Configure dynamic and static network information from MS-DOS.	External
netstat	Display the TCP/IP network protocol statistics and information.	External
nlsfunc	Load country specific information.	External
nslookup	Look up an IP address of a domain or host on a network.	External
path	View and modify the computer's path location.	Internal
pathping	View and locate locations of network latency.	External
pause	Command used in batch files to stop the processing of a command.	Internal
ping	Test and send information to another network computer or network device.	External
popd	Changes to the directory or network path stored by the pushd command.	Internal
power	Conserve power with computer portables.	External
print	Prints data to a printer port.	External
prompt	View and change the MS-DOS prompt.	Internal
pushd	Stores a directory or network path in memory so it can be returned to at any time.	Internal
qbasic	Open the QBasic.	External
rd	Removes an empty directory.	Internal
ren	Renames a file or directory.	Internal
rename	Renames a file or directory.	Internal
rmdir	Removes an empty directory.	Internal

robocopy A robust file copy command for the Windows command line. External

route	View and configure Windows network route tables.	External
runas	Enables a user to run a program as a different user.	External
sc	Communicate with the Service Control Manager and services.	External
scandisk	Run the ScanDisk utility.	External
scanreg	Scan registry and recover registry from errors.	External
set	Change one variable or string to another.	Internal
setlocal	Enables local environments to be changed without affecting anything else.	Internal
setver	Change MS-DOS version to trick older MS-DOS programs.	External
share	Installs support for file sharing and locking capabilities.	External
shift	Changes the position of replaceable parameters in a batch program.	Internal
shutdown	Shutdown the computer from the MS-DOS prompt.	External
smartdrv	Create a disk cache in conventional memory or extended memory.	External
sort	Sorts the input and displays the output to the screen.	External
start	Start a separate window in Windows from the MS-DOS prompt.	Internal
subst	Substitute a directory on your computer for another drive letter.	External
switches	Remove add functions from MS-DOS.	Internal
sys	Transfer system files to disk drive.	External
telnet	Telnet to another computer or device from the prompt.	External
time	View or modify the system time.	Internal
title	Change the title of their MS-DOS window.	Internal
tracert	Visually view a network packets route across a network.	External

tree	View a visual tree of the hard drive.	External
type	Display the contents of a file.	Internal
undelete	Undelete a file that was deleted.	External

unformat	Unformat a hard drive.	External
unlock	Unlock a disk drive.	Internal
ver	Display the version information.	Internal
verify	Enables or disables the feature to determine if files were written properly.	Internal
vol	Displays the volume information about the designated drive.	Internal
xcopy	Copy multiple files, directories, or drives from one location to another.	External

Results: Output must be recorded in a separate text/ doc file saved as <Roll No_Batch No_Date>(No snapshot s to be attached or pasted in this file)

This file must contain on the top:

Name:
Roll No.
Exp No.
Batch:
Date:

And Students have to upload this document electronically.

Questions:

1. What difference you observed in using MS-DOS and Ubuntu terminal commands?

Ans: MS-DOS is not case sensitive whereas Ubuntu terminal was case sensitive.
 MS-DOS uses backslashes and ubuntu terminal uses forward slashes.
 MS-DOS has batch files and ubuntu contains shell files.
 MS-DOS is widely used in embedded systems while Ubuntu is used on the servers.
 DOS lacks virtual and protected memory while Ubuntu has both.

2. Give any 5 commands that have same output in MS-DOS and Ubuntu terminal but differs in nomenclature.

Ans:

Sr. No.	Task Performed	DOS Command	Output	Linux Command
1	File copying	copy [filepath] [newfilepat h]		cp [filepath] [newfilepath]
2	Clear terminal	cls	C:\Users\OS_IT_B317\Desktop\Rintro nGlade>	clear
3	Displays time	time	C:\Users\OS_IT_B317\Desktop\Rintro nGlade>time	date

			The current time is: 14:49:17.01	
4	Rename a file	ren [file path] [file name] [new name]	<p>C:\Users\OS_IT_B317\Desktop\Rintro nGlade>dir</p> <p>Volume in drive C has no label. Volume Serial Number is 9A99-D046</p> <p>Directory of C:\Users\OS_IT_B317\Desktop\Rintro nGlade</p> <pre> 11/07/2022 02:43 PM <DIR> . 11/07/2022 02:43 PM <DIR> .. 11/07/2022 02:43 PM 5 xyz.txt.txt 1 File(s) 5 bytes 2 Dir(s) 149,852,463,104 bytes free C:\Users\OS_IT_B317\Desktop\Rintro nGlade>ren C:\Users\OS_IT_B317\Desktop\Rintro nGlade\xyz.txt.txt xyz.txt C:\Users\OS_IT_B317\Desktop\Rintro nGlade>dir Volume in drive C has no label. Volume Serial Number is 9A99-D046 Directory of C:\Users\OS_IT_B317\Desktop\Rintro nGlade 11/07/2022 02:53 PM <DIR> . 11/07/2022 02:53 PM <DIR> .. 11/07/2022 02:43 PM 5 xyz.txt 1 File(s) 5 bytes 2 Dir(s) 149,856,067,584 bytes free </pre>	mv [old name] [new name]
5	Delete a file (delete xyz.txt)	del xyz.txt	<p>C:\Users\OS_IT_B317\Desktop\Rintro nGlade>del xyz.txt</p> <p>C:\Users\OS_IT_B317\Desktop\Rintro nGlade></p>	rm xyz.txt
6	Shows	systeminfo	C:\Users\OS_IT_B317\Desktop\Rintro	uname

	information about system		<pre> nGlade>systeminfo Host Name: DESKTOP-BKEDTQD OS Name: Microsoft Windows 10 Pro for Workstations OS Version: 10.0.18363 N/A Build 18363 OS Manufacturer: Microsoft Corporation OS Configuration: Standalone Workstation OS Build Type: Multiprocessor Free Registered Owner: OS_IT_B317 Registered Organization: Product ID: 00391-90090-60463-AA524 Original Install Date: 9/20/2022, 11:55:10 PM System Boot Time: 11/7/2022, 10:43:53 AM System Manufacturer: Dell Inc. System Model: OptiPlex 3010 System Type: x64-based PC Processor(s): 1 Processor(s) Installed. [01]: Intel64 Family 6 Model 58 Stepping 9 GenuineIntel ~3300 Mhz BIOS Version: Dell Inc. A08, 12/7/2012 Windows Directory: C:\Windows System Directory: C:\Windows\system32 Boot Device: \Device\HarddiskVolume1 System Locale: en-us;English (United States) Input Locale: 00004009 Time Zone: (UTC+05:30) Chennai, Kolkata, Mumbai, New Delhi Total Physical Memory: 8,094 MB Available Physical Memory: 4,472 MB Virtual Memory: Max Size: 9,374 MB Virtual Memory: Available: 5,369 MB Virtual Memory: In Use: 4,005 MB Page File Location(s): C:\pagefile.sys </pre>	
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			Domain: WORKGROUP Logon Server: \\DESKTOP-BKEDTQD Hotfix(s): 7 Hotfix(s) Installed. [01]: KB4515871 [02]: KB4513661 [03]: KB4516115 [04]: KB4517245 [05]: KB4521863 [06]: KB4577586 [07]: KB4517389 Network Card(s): 1 NIC(s) Installed. [01]: Realtek PCIe GbE Family Controller Connection Name: Ethernet DHCP Enabled: No IP address(es) [01]: 172.17.17.27 [02]: fe80::a0e9:ddb3:58c4:d011 Hyper-V Requirements: VM Monitor Mode Extensions: Yes Virtualization Enabled In Firmware: Yes Second Level Address Translation: Yes Data Execution Prevention Available: Yes	
7	Returns our current location in directory	chdir	C:\Users\OS_IT_B317\Desktop\Rintro nGlade>chdir C:\Users\OS_IT_B317\Desktop\Rintro nGlade	pwd
8	Print contents of a file	type	C:\Users\OS_IT_B317\Desktop\Rintro nGlade>type xyz.txt hello	cat
9	List running tasks	tasklist	C:\Users\OS_IT_B317\Desktop\Rintro nGlade>tasklist Image Name PID Session Name Session# Mem Usage =====	ps x

			=====	
			System Idle Process 0	
			Services 0 8 K	
			System 4 Services	
			0 144 K	
			Registry 96 Services	
			0 76,444 K	
			smss.exe 416 Services	
			0 1,148 K	
			csrss.exe 540 Services	
			0 5,700 K	
			wininit.exe 616 Services	
			0 6,560 K	
			services.exe 824	
			Services 0 8,832 K	
			lsass.exe 832 Services	
			0 20,104 K	
			svchost.exe 960	
			Services 0 3,764 K	
			fontdrvhost.exe 976	
			Services 0 2,304 K	
			svchost.exe 8 Services	
			0 27,012 K	
			svchost.exe 484	
			Services 0 15,136 K	
			svchost.exe 780	
			Services 0 7,708 K	
			svchost.exe 1176	
			Services 0 14,456 K	

Outcomes: CO4: Understanding Open source.

Conclusion: Basic DOS commands were explored, observed understood and successfully implemented. We also compared them with Linux commands.

Grade: AA / AB / BB / BC / CC / CD / DD

Signature of faculty in-charge with date

Referred Books/Internet sources:

1. <https://www.computerhope.com/overview.htm>