

**OS (OPERATING SYSTEM) Lab**

**LAB REPORT # 2**

**Semester**: 5thSemester

**Section**: C

**Submitted To:**

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**Submitted By:**

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**Lab Tasks**

Q1 Difference between terminal and shell.

Q2 Write 10 Basic commands in Linux.

Q3 Show Simulation results after performing the following tasks by using suitable commands in Linux

1. Verify that you are in your home directory.

2. Make the directory adir using the command: mkdir adir if problem occurs, use sudo mkdir adir and then give password

3. List the files in the current directory to verify that the directory adir has beenmade correctly.

4. Change directories to adir.

5. Verify that you have succeeded in moving to the adir directory.

6. Make file testfile.

7. Verify that the file testfile exists.

8. List the contents of the file testfile to the screen.

9. Make a copy of the file testfile under the name secondfile.

10. Verify that the files testfile and secondfile both exist.

11. List the contents of both testfile and secondfile to the monitor screen.

12. Delete the file testfile.

13. Verify that testfile has been deleted.

14. Clear the window.

15. Rename the secondfile to thefile.

16. Copy thefile to your home directory.

17. Remove thefile from the current directory.

18. Verify that thefile has been removed.

19. Copy thefile from your home directory to the current directory.

20. Verify that thefile has been copied from your home directory to the current directory.

21. Change directories to your home directory.

22. Verify that you are in your home directory.

23. Verify that a copy of thefile is in your home directory.

24. Remove thefile from your home directory.

25. Remove thefile from the directory adir.

26. Remove the directory adir from your home directory with the command. rmdir adir

27. Verify that thefile and adir are gone from your home directory.

**Solution:**

**Q1: Difference between terminal and shell**

* **Terminal**: It's an interface (or an app) that allows you to interact with the system via the command line. It can run different shells.
* **Shell**: A shell is a command-line interpreter that provides an interface to interact with the operating system. Popular examples are bash, zsh, and sh. The terminal runs the shell.

**Q2: 10 Basic Commands in Linux**

1. pwd - Prints the current working directory.
2. ls - Lists files and directories in the current directory.
3. cd - Changes the current directory.
4. mkdir - Creates a new directory.
5. touch - Creates an empty file.
6. cp - Copies files or directories.
7. mv - Moves or renames files or directories.
8. rm - Removes files or directories.
9. cat - Concatenates and displays file content.
10. man - Shows the manual pages for commands.

**Q3: Simulation Results with Linux Commands**

1. **Verify you are in your home directory**:

pwd

1. **Create directory adir**:

mkdir adir

# If there's a permission issue:

sudo mkdir adir

1. **List files to verify adir was created**:

ls

1. **Change to directory adir**:

cd adir

1. **Verify you are in adir**:

pwd

1. **Create file testfile**:

touch testfile

1. **Verify testfile exists**:

ls

1. **List contents of testfile (it will be empty)**:

cat testfile

1. **Copy testfile to secondfile**:

cp testfile secondfile

1. **Verify both files exist**:

ls

1. **List contents of both files**:

cat testfile secondfile

1. **Delete testfile**:

rm testfile

1. **Verify testfile was deleted**:

ls

1. **Clear the window**:

clear

1. **Rename secondfile to thefile**:

mv secondfile thefile

1. **Copy thefile to home directory**:

cp thefile ~/

1. **Remove thefile from the current directory**:

rm thefile

1. **Verify thefile is gone from the current directory**:

ls

1. **Copy thefile from home directory back to current directory**:

cp ~/thefile .

1. **Verify thefile was copied back**:

ls

1. **Change to your home directory**:

cd ~

1. **Verify you are in your home directory**:

pwd

1. **Verify a copy of thefile is in your home directory**:

ls

1. **Remove thefile from your home directory**:

rm thefile

1. **Remove thefile from adir**:

cd adir

rm thefile

1. **Remove adir**:

cd ..

rmdir adir

1. **Verify thefile and adir are gone**:

ls

The following is the Simulation of the task Performed in the Terminal the Output was collected using the **script** Command

Script started on 2024-10-17 00:12:42+05:00 [TERM="xterm-256color" TTY="/dev/pts/0" COLUMNS="120" LINES="30"]

whitedevil@PC: /mnt/f/My\_Private\_Folder/UNI/4thSemester/OS/Lab/2

whitedevil@PC:/mnt/f/My\_Private\_Folder/UNI/4thSemester/OS/Lab/2$ cd ~

whitedevil@PC: ~

whitedevil@PC:~$ pwd

/home/whitedevil

whitedevil@PC: ~

whitedevil@PC:~$ mkdir adir

whitedevil@PC: ~

whitedevil@PC:~$ ls

adir ansifilter-master ansifilter-master.tar.gz dir

whitedevil@PC: ~

whitedevil@PC:~$

whitedevil@PC: ~

whitedevil@PC:~$ cd adir

whitedevil@PC: ~/adir

whitedevil@PC:~/adir$ pwd

/home/whitedevil/adir

whitedevil@PC: ~/adir

whitedevil@PC:~/adir$ touch testfile

whitedevil@PC: ~/adir

whitedevil@PC:~/adir$ ls

testfile

whitedevil@PC: ~/adir

whitedevil@PC:~/adir$ cat testfile

whitedevil@PC: ~/adir

whitedevil@PC:~/adir$ cp testfile secondfile

whitedevil@PC: ~/adir

whitedevil@PC:~/adir$ ls

secondfile testfile

whitedevil@PC: ~/adir

whitedevil@PC:~/adir$ cat testfile secondfile

whitedevil@PC: ~/adir

whitedevil@PC:~/adir$ rm testfile

whitedevil@PC: ~/adir

whitedevil@PC:~/adir$ ls

secondfile

whitedevil@PC: ~/adir

whitedevil@PC:~/adir$ clear

whitedevil@PC: ~/adir

whitedevil@PC:~/adir$ mv secondfile thefile

whitedevil@PC: ~/adir

whitedevil@PC:~/adir$ cp thefile ~/

whitedevil@PC: ~/adir

whitedevil@PC:~/adir$ rm thefile

whitedevil@PC: ~/adir

whitedevil@PC:~/adir$ ls

whitedevil@PC: ~/adir

whitedevil@PC:~/adir$ cp ~/thefile .

whitedevil@PC: ~/adir

whitedevil@PC:~/adir$ ls

thefile

whitedevil@PC: ~/adir

whitedevil@PC:~/adir$ cd ~

whitedevil@PC: ~

whitedevil@PC:~$ pwd

/home/whitedevil

whitedevil@PC: ~

whitedevil@PC:~$ ls

adir ansifilter-master ansifilter-master.tar.gz dir thefile

whitedevil@PC: ~

whitedevil@PC:~$ rm thefile

whitedevil@PC: ~

whitedevil@PC:~$ cd adir

whitedevil@PC: ~/adir

whitedevil@PC:~/adir$ rm thefile

whitedevil@PC: ~/adir

whitedevil@PC:~/adir$ cd ..

whitedevil@PC: ~

whitedevil@PC:~$ rmdir adir

whitedevil@PC: ~

whitedevil@PC:~$ ls

ansifilter-master ansifilter-master.tar.gz dir

whitedevil@PC: ~

whitedevil@PC:~$ exit

exit

Script done on 2024-10-17 00:14:49+05:00 [COMMAND\_EXIT\_CODE="0"]