

Name : Rohin Sabharwal(2021A1R032)

Experiment 1:

Title : Practice basic bash , IO redirection, pipe, file and directory operations, searching files, process management and vi/nano editor commands.

Linux Commands

1. whoami → Display the username

```
rohin@rohin-VirtualBox:~$ whoami
rohin
rohin@rohin-VirtualBox:~$ |
```

2. hostname → Displays the hostname

```
rohin@rohin-VirtualBox:~$ hostname
rohin-VirtualBox
rohin@rohin-VirtualBox:~$ |
```

3. ls → Displays the list of directories

```
rohin@rohin-VirtualBox:~$ ls
cd                directry1    f2.txt      Pictures    Videos
'dirohin@rohin-VirtualBox:~$' Documents    file        Public      vim
Desktop          Downloads   folder      snap
directly         f04        Music       Templates
directly2        f1.txt     new         version
rohin@rohin-VirtualBox:~$
```

4. `ls -la` → Displays the list of directories including hidden files and other details

```
rohin@rohin-VirtualBox:~$ ls -la
total 164
drwxr-xr-x 29 rohin rohin 4096 Oct  2 21:11 .
drwxr-xr-x  3 root  root  4096 Sep  7 23:47 ..
-rw-r--r--  1 rohin rohin 5637 Sep 29 14:34 .bash_history
-rw-r--r--  1 rohin rohin  220 Sep  7 23:47 .bash_logout
-rw-r--r--  1 rohin rohin 3771 Sep  7 23:47 .bashrc
drwxr--r-- 16 rohin rohin 4096 Sep 22 12:27 .cache
drwxr--r--  2 rohin rohin 4096 Sep 12 10:12 cd
drwxr--r-- 18 rohin rohin 4096 Sep 22 12:28 .config
drwxrwxr-x  2 rohin rohin 4096 Sep 12 10:12 'dirohin@rohin-VirtualBox:~$'
drwxr-xr-x  3 rohin rohin 4096 Sep 12 11:13 Desktop
drwxrwxr-x  3 rohin rohin 4096 Sep 12 11:09 directly
drwxrwxr-x  3 rohin rohin 4096 Sep 19 10:35 directly2
drwxrwxr-x  2 rohin rohin 4096 Sep 19 10:30 directry1
drwxr-xr-x  2 rohin rohin 4096 Sep  8 00:10 Documents
drwxr-xr-x  2 rohin rohin 4096 Sep  8 00:10 Downloads
drwxrwxr-x  5 rohin rohin 4096 Sep 12 10:23 f04
-rw-rw-r--  1 rohin rohin  54 Sep 28 18:45 f1.txt
-rw-rw-r--  1 rohin rohin  54 Sep 28 18:49 f2.txt
drwxrwxr-x  2 rohin rohin 4096 Sep 29 13:15 file
drwxrwxr-x  2 rohin rohin 4096 Sep 29 13:16 folder
drwxr--r--  2 rohin rohin 4096 Oct  2 21:11 .gnupg
-rw-r--r--  1 rohin rohin  20 Sep 19 11:06 .lessht
drwxr--r--  3 rohin rohin 4096 Sep  8 00:10 .local
drwxr--r--  3 rohin rohin 4096 Sep  8 00:25 .mozilla
drwxr-xr-x  2 rohin rohin 4096 Sep  8 00:10 Music
drwxrwxr-x  2 rohin rohin 4096 Sep 29 13:54 new
drwxr-xr-x  4 rohin rohin 4096 Oct  2 21:11 Pictures
-rw-r--r--  1 rohin rohin  807 Sep  7 23:47 .profile
drwxr-xr-x  2 rohin rohin 4096 Sep  8 00:10 Public
drwxr--r--  4 rohin rohin 4096 Sep 22 22:33 snap
drwxr--r--  2 rohin rohin 4096 Sep  8 00:11 .ssh
-rw-r--r--  1 rohin rohin   0 Sep  8 00:12 .sudo_as_admin_successful
drwxr-xr-x  2 rohin rohin 4096 Sep  8 00:10 Templates
drwxr--r--  6 rohin rohin 4096 Sep  8 00:25 .thunderbird
-rw-r--r--  1 rohin rohin   5 Oct  2 21:10 .vboxclient-clipboard.pid
-rw-r--r--  1 rohin rohin   5 Oct  2 21:10 .vboxclient-display-svga-x11.pid
-rw-r--r--  1 rohin rohin   5 Oct  2 21:10 .vboxclient-draganddrop.pid
-rw-r--r--  1 rohin rohin   5 Oct  2 21:10 .vboxclient-seamless.pid
drwxrwxr-x  2 rohin rohin 4096 Sep 29 13:15 version
```

5. `pwd` → Displays the current working directory

```
rohin@rohin-VirtualBox:~$ pwd
/home/rohin
rohin@rohin-VirtualBox:~$ |
```

6. `cd <dir name>` → To access the directory

```
rohin@rohin-VirtualBox:~$ cd new
rohin@rohin-VirtualBox:~/new$ |
```

7. `cd ..` → To go back to the previous directory

```
rohin@rohin-VirtualBox:~$ cd new
rohin@rohin-VirtualBox:~/new$ cd ..
rohin@rohin-VirtualBox:~$
```

8. `cd` → To go to home directory

```
rohin@rohin-VirtualBox:~/new/loc$ cd
rohin@rohin-VirtualBox:~$ |
```

9. `cd <path>` → To open a particular directory using path


```
rohin@rohin-VirtualBox:~$ cd /home/rohin/Desktop/file
rohin@rohin-VirtualBox:~/Desktop/file$
```

10. touch <filename> → To create a file

```
rohin@rohin-VirtualBox:~/Desktop/file$ touch file.txt
rohin@rohin-VirtualBox:~/Desktop/file$ ls
file.txt
rohin@rohin-VirtualBox:~/Desktop/file$ |
```

11. touch <filename>{from..to} → To create multiple files instantly

```
rohin@rohin-VirtualBox:~/Desktop/file$ touch f1.txt f2.txt f3.txt f4.txt
```



12. vi/nano <filename> → Creates a file and open in write mode

13. cat <filename> → Displays the content in the file

```
rohin@rohin-VirtualBox:~/Desktop/file$ nano file1.txt
rohin@rohin-VirtualBox:~/Desktop/file$ cat file1.txt
Basic File
rohin@rohin-VirtualBox:~/Desktop/file$ |
```

14. mkdir <dirname> → Creates a directory

```
rohin@rohin-VirtualBox:~/Desktop/file$ mkdir dir
rohin@rohin-VirtualBox:~/Desktop/file$ ls
dir  f1.txt  f2.txt  f3.txt  f4.txt  file1.txt  file.txt
rohin@rohin-VirtualBox:~/Desktop/file$ |
```

15. mkdir -v <dirname> → Creates a directory and displays the status

```
rohin@rohin-VirtualBox:~/Desktop/file$ mkdir -v sample
mkdir: created directory 'sample'
rohin@rohin-VirtualBox:~/Desktop/file$ |
```

16. mkdir -p <dirname/dirname2> → Creates a directory within a directory

```
rohin@rohin-VirtualBox:~/Desktop/file$ mkdir -p dir/dir1
rohin@rohin-VirtualBox:~/Desktop/file$ cd dir
rohin@rohin-VirtualBox:~/Desktop/file/dir$ ls
dir1
rohin@rohin-VirtualBox:~/Desktop/file/dir$ |
```

17. rm <filename> → To remove/delete a file

```
rohin@rohin-VirtualBox:~/Desktop/file$ ls
dir  f1.txt  f2.txt  f3.txt  f4.txt  file1.txt  file.txt  sample
rohin@rohin-VirtualBox:~/Desktop/file$ rm f1.txt
rohin@rohin-VirtualBox:~/Desktop/file$ ls
dir  f2.txt  f3.txt  f4.txt  file1.txt  file.txt  sample
rohin@rohin-VirtualBox:~/Desktop/file$ |
```

18. rmdir <dirname> → To remove/delete a directory

```
rohin@rohin-VirtualBox:~/Desktop/file/dir$ ls
dir1
rohin@rohin-VirtualBox:~/Desktop/file/dir$ rmdir dir1
rohin@rohin-VirtualBox:~/Desktop/file/dir$ ls
rohin@rohin-VirtualBox:~/Desktop/file/dir$
```

19. rmdir <filename/filename2> → To remove/delete a directory path

```
rohin@rohin-VirtualBox:~/Desktop/file$ rmdir -p dir/dir1
rohin@rohin-VirtualBox:~/Desktop/file$ ls
f2.txt  f3.txt  f4.txt  file1.txt  file.txt  sample
rohin@rohin-VirtualBox:~/Desktop/file$
```

20. mv <filename> <newname> → To rename a file

```
rohin@rohin-VirtualBox:~/Desktop/file$ ls
f2.txt f3.txt f4.txt file1.txt file.txt sample
rohin@rohin-VirtualBox:~/Desktop/file$ mv f2.txt f19.txt
rohin@rohin-VirtualBox:~/Desktop/file$ ls
f19.txt f3.txt f4.txt file1.txt file.txt sample
rohin@rohin-VirtualBox:~/Desktop/file$
```

21. mv <filename> <path> → To move a file from a directory to a specified directory

```
rohin@rohin-VirtualBox:~/Desktop/file$ ls
f19.txt f3.txt f4.txt file1.txt file.txt sample
rohin@rohin-VirtualBox:~/Desktop/file$ mv f3.txt sample
rohin@rohin-VirtualBox:~/Desktop/file$ cd sample
rohin@rohin-VirtualBox:~/Desktop/file/sample$ ls
f3.txt
rohin@rohin-VirtualBox:~/Desktop/file/sample$
```

22. mv -i <filename> <path> → To move a file and ask permission to overwrite if file already exists

```
rohin@rohin-VirtualBox:~/Desktop/file$ mv -i file.txt sample
rohin@rohin-VirtualBox:~/Desktop/file$ ls
file1.txt sample
rohin@rohin-VirtualBox:~/Desktop/file$
```

23. mv -n <filename> <path> → To move a file and deny permission to overwrite if file already exists

```
rohin@rohin-VirtualBox:~/Desktop/file$ mv -n file1.txt sample
rohin@rohin-VirtualBox:~/Desktop/file$ cd sample
rohin@rohin-VirtualBox:~/Desktop/file/sample$ ls
f19.txt f3.txt f4.txt file1.txt file.txt
rohin@rohin-VirtualBox:~/Desktop/file/sample$ |
```

24. mv -b <filename> <path> → To move a file and create a backup of the old file

```
rohin@rohin-VirtualBox:~/Desktop/file$ mv -b file.txt sample
rohin@rohin-VirtualBox:~/Desktop/file$ cd sample
rohin@rohin-VirtualBox:~/Desktop/file/sample$ ls
f19.txt f3.txt f4.txt file1.txt file.txt file.txt~
rohin@rohin-VirtualBox:~/Desktop/file/sample$ |
```

