

Aim: Familiarization with Linux command.

CO2: Perform system administration tasks.

Procedure:

1. pwd: to print the working directory.
• print the path of the working directory.

\$pwd

Output:

```
student@t2:~$ pwd
/home/student
```

2. ls: Used to list the files and contents

\$ls

Output:

```
student@t2:~$ ls
1
Desktop
dir1
directory
Documents
Downloads
Music
Pictures
Public
PycharmProjects
snap
'snap Desktop Documents Downloads Music Pictures Public Templates Videos'
sreerag
sreerag1
Templates
test
Videos
```

- i. ls -R: This will list all the subdirectories

\$ls -R

Output:

```
student@t2:~$ ls -R
.:
1
Desktop
dir1
directory
Documents
Downloads
Music
Pictures
Public
PycharmProjects
snap
'snap Desktop Documents Downloads Music Pictures Public Templates Videos'
sreerag
sreerag1
Templates
```

- ii. ls -l: long listing,

\$ls -l

Output:

```
student@t2:~$ ls -l
total 80
drwxrwxr-x 2 student student 4096 Mar  7 16:12 1
drwxr-xr-x 2 student student 4096 Jun 17 2022 Desktop
drwxrwxr-x 2 student student 4096 Mar  7 16:13 dir1
drwxrwxr-x 2 student student 4096 Mar  7 16:12 directory
drwxr-xr-x 2 student student 4096 Jun 17 2022 Documents
drwxr-xr-x 2 student student 4096 Jun 17 2022 Downloads
drwxr-xr-x 2 student student 4096 Jun 17 2022 Music
drwxr-xr-x 2 student student 4096 Jun 17 2022 Pictures
drwxr-xr-x 2 student student 4096 Jun 17 2022 Public
drwxrwxr-x 3 student student 4096 Jun 17 2022 PycharmProjects
drwx----- 4 student student 4096 Mar  7 16:01 snap
```

- iii. ls -a: To view the hidden files.

\$ls -a

Output:

```
student@t2:~$ ls -a
.
..
1
.bash_history
.bash_logout
.bashrc
.cache
.config
Desktop
dir1
directory
Documents
Downloads
.gnupg
.java
.lesshst
.local
.mozilla
Music
Pictures
.pki
.profile
Public
PycharmProjects
snap
'snap Desktop Documents Downloads Music Pictures Public Templates Videos'
```

- iv. ls -al: list the files and directories with detailed information including hidden files.

\$ls -al

Output:

```
student@t2:~$ ls -al
total 144
drwxr-xr-x 27 student student 4096 Mar  7 16:43 .
drwxr-xr-x  6 root    root    4096 Jun 17 2022 ..
drwxrwxr-x  2 student student 4096 Mar  7 16:12 1
-rw-----  1 student student 3732 Mar  9 14:22 .bash_history
```

- v. ls -t: list the files in sorted in the order of last modified.

\$ls -t

Output:

```
student@t2:~$ ls -t
test  directory  sreerag  Desktop  Music  Templates
dir1  snap      'snap Desktop Documents Downloads Music Pictures Public Templates Videos'  Documents  Pictures  Videos
1     sreerag1  PycharmProjects  Downloads  Public
```

- vi. ls -r: reverse the actual sorting order.

\$ls -r

Output:

```
student@t2:~$ ls -r
Videos  sreerag1  snap  Pictures  Documents  Desktop
test    sreerag  PycharmProjects  Music  directory  1
Templates 'snap Desktop Documents Downloads Music Pictures Public Templates Videos'  Public  Downloads  dir1
```

3. mkdir: to make the directory

\$mkdir [filename]

Output:

```
student@t2:~$ mkdir diya
student@t2:~$ ls
1      directory  Downloads  Public      'snap Desktop Documents Downloads Music Pictures Public Templates Videos'  Templates
Desktop diya          Music     PycharmProjects  sreerag      test
dir1   Documents   Pictures   snap            sreerag1     Videos
```

4. cd: to navigate through the directory.

\$cd [filename]

Output:

```
student@t2:~$ cd diya
student@t2:~/diya$
```

5. cd -- / cd ..: to go to the previous directory.

\$cd ..

Output:

```
student@t2:~/diya$ cd ..
student@t2:~$
```

6. history: to view the history and the commands which you have been executed for certain period of time.

\$history

Output:

```
student@t2:~/diya$ history
1  ./studio.sh
2  ./studio.sh
3  su mca
4  pwd
5  ls
6  ls -R
7  ls -R
8  ectcs snap Templates Videos
9  ls -l
10 ls -a
11 ls -al
12 ls -t
13 ls -s
14 ls -r
15 history
16 man ls
17 wq
18 man ls
19 mkdir sreerag
20 pwd
21 cd sreerag
22 pwd
23 cd ..
24 rmdir sreerag
25 cd -
```

7. man: we can learn and understand about the shell using man command.

\$man ls

Output:

```
LS(1)                                User Commands                                LS(1)

NAME
    ls - list directory contents

SYNOPSIS
    ls [OPTION]... [FILE]...

DESCRIPTION
    List information about the FILES (the current directory by default). Sort entries alphabetically if none of -cftuvSUX nor --sort is specified.
```

8. cat: to create file.

i. \$cat > [filename]

Output:

```
student@t2:~/diya$ cat > dinla1
happy
bad
right
^Z
[1]+  Stopped                  cat > dinla1
```

ii. cat [filename]: to display the file contents.

\$ cat dinla1

Output:

```
student@t2:~/diya$ cat dinla1
happy
bad
right
```

iii. cat >> [filename]: to append the file.

\$cat >> dinla1

Output:

```
student@t2:~/diya$ cat >> dinla1
dilna
desti
^Z
[2]+  Stopped                  cat >> dinla1
```

iv. cat -n [filename]: to display the line number.

\$cat -n dinla1

Output:

```
student@t2:~/diya$ cat -n dinla1
 1 happy
 2 bad
 3 right
 4 dilna
 5 desti
```

v. cat -b [filename]: to remove numbering from empty line.

\$cat -b dinla1

Output:

```
student@t2:~/diya$ cat -b dinla1
 1 happy
 2 bad
 3 right
 4 dilna
 5 desti

 6 thing
 7 money heist
```