

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
demo Desktop Destimona Documents Downloads file1 Music pic Pictures Public PycharmProjects snap sree sub Templates Videos
```

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

\$ls -R

Output:

```
student@t2: ~
student@t2:~$ ls -R
.:
demo Desktop Destimona Documents Downloads file1 Music pic Pictures Public PycharmProjects snap sree sub Templates Videos

./demo:
demo2 file1 file3 myfile myfile2

./demo/demo2:

./Desktop:
ls.png pwd.png

./Destimona:

./Documents:

./Downloads:

./Music:

./pic:
cat1.png cat3.png history.png lsa.png ls.png lst.png mkdir.png rmdir.png
cat2.png cd.png lsal.png lsl.png lsR.png man.png pwd.png

./Pictures:

./Public:

./PycharmProjects:
pythonProject

./PycharmProjects/pythonProject:
main.py venv

./PycharmProjects/pythonProject/venv:
bin lib pyvenv.cfg

./PycharmProjects/pythonProject/venv/bin:
activate activate.fish activate.ps1 deactivate.nu f2nv3 pip pip-3.9 python python3.9 wheel3 wheel3.9
```

- ii. ls -l: long listing,

\$ls -l

Output:

```

student@t2:~$ ls -l
total 64
drwxrwxr-x 3 student student 4096 Mar  7 16:51 demo
drwxr-xr-x 2 student student 4096 Mar  9 15:24 Desktop
drwxrwxr-x 2 student student 4096 Mar  9 14:37 Destimona
drwxr-xr-x 2 student student 4096 Jun 17  2022 Documents
drwxr-xr-x 2 student student 4096 Jun 17  2022 Downloads
-rw-rw-r-- 1 student student  89 Mar  9 14:59 file1
drwxr-xr-x 2 student student 4096 Jun 17  2022 Music
drwxrwxr-x 2 student student 4096 Mar  7 16:59 pic
drwxr-xr-x 2 student student 4096 Mar  7 16:59 Pictures
drwxr-xr-x 2 student student 4096 Jun 17  2022 Public
drwxrwxr-x 3 student student 4096 Jun 17  2022 PycharmProjects
drwx----- 3 student student 4096 Jun 17  2022 snap
drwxrwxr-x 2 student student 4096 Mar  7 14:58 sree
drwxrwxr-x 3 student student 4096 Mar  7 15:20 sub
drwxr-xr-x 2 student student 4096 Jun 17  2022 Templates
drwxr-xr-x 2 student student 4096 Jun 17  2022 Videos

```

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

`$ls -a`

Output:

```

student@t2:~$ ls -a
.          .bash_logout  .config  Destimona  file1     .java     Music     .pki       PycharmProjects  .ssh       Videos
..         .bashrc       demo     Documents  .gnome    .local    pic       .profile    snap          sub
.bash_history .cache       Desktop  Downloads  .gnupg    .mozilla  Pictures  Public     sree          Templates

```

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

`$ls -al`

Output:

```

student@t2:~$ ls -al
total 124
drwxr-xr-x 26 student student 4096 Mar  9 15:18 .
drwxr-xr-x  6 root      root    4096 Jun 17  2022 ..
-rw-----  1 student student 1232 Mar  9 15:16 .bash_history
-rw-r--r--  1 student student  220 Jun 17  2022 .bash_logout
-rw-r--r--  1 student student 3771 Jun 17  2022 .bashrc
drwxrwxr-x 19 student student 4096 Mar  7 16:37 .cache
drwxr-xr-x 17 student student 4096 Mar  9 15:18 .config
drwxrwxr-x  3 student student 4096 Mar  7 16:51 demo
drwxr-xr-x  2 student student 4096 Mar  9 15:31 Desktop
drwxrwxr-x  2 student student 4096 Mar  9 14:37 Destimona
drwxr-xr-x  2 student student 4096 Jun 17  2022 Documents
drwxr-xr-x  2 student student 4096 Jun 17  2022 Downloads
-rw-rw-r--  1 student student  89 Mar  9 14:59 file1
drwx-----  3 student student 4096 Mar  9 15:18 .gnome
drwx-----  3 student student 4096 Mar  9 15:15 .gnupg
drwxrwxr-x  4 student student 4096 Jun 17  2022 .java
drwxr-xr-x  3 student student 4096 Jun 17  2022 .local
drwx-----  5 student student 4096 Mar  6 12:39 .mozilla
drwxr-xr-x  2 student student 4096 Jun 17  2022 Music
drwxrwxr-x  2 student student 4096 Mar  7 16:59 pic
drwxr-xr-x  2 student student 4096 Mar  7 16:59 Pictures
drwx-----  3 student student 4096 Mar  7 16:37 .pki
-rw-r--r--  1 student student  807 Jun 17  2022 .profile
drwxr-xr-x  2 student student 4096 Jun 17  2022 Public
drwxrwxr-x  3 student student 4096 Jun 17  2022 PycharmProjects
drwx-----  3 student student 4096 Jun 17  2022 snap
drwxrwxr-x  2 student student 4096 Mar  7 14:58 sree
drwx-----  2 student student 4096 Jun 17  2022 .ssh
drwxrwxr-x  3 student student 4096 Mar  7 15:20 sub
drwxr-xr-x  2 student student 4096 Jun 17  2022 Templates
drwxr-xr-x  2 student student 4096 Jun 17  2022 Videos

```

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

`$ ls -t`

Output:

```

student@t2:~$ ls -t
Desktop file1 Destimona pic Pictures demo sub sree PycharmProjects snap Documents Downloads Music Public Templates Videos
student@t2:~$

```

- 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 Desti
student@t2:~$
```

4. cd: to navigate through the directory.

\$cd [filename]

Output:

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

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

\$cd ..

Output:

```
student@t2:~/Desti$ cd --
student@t2:~$
```

6. history:

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

\$history

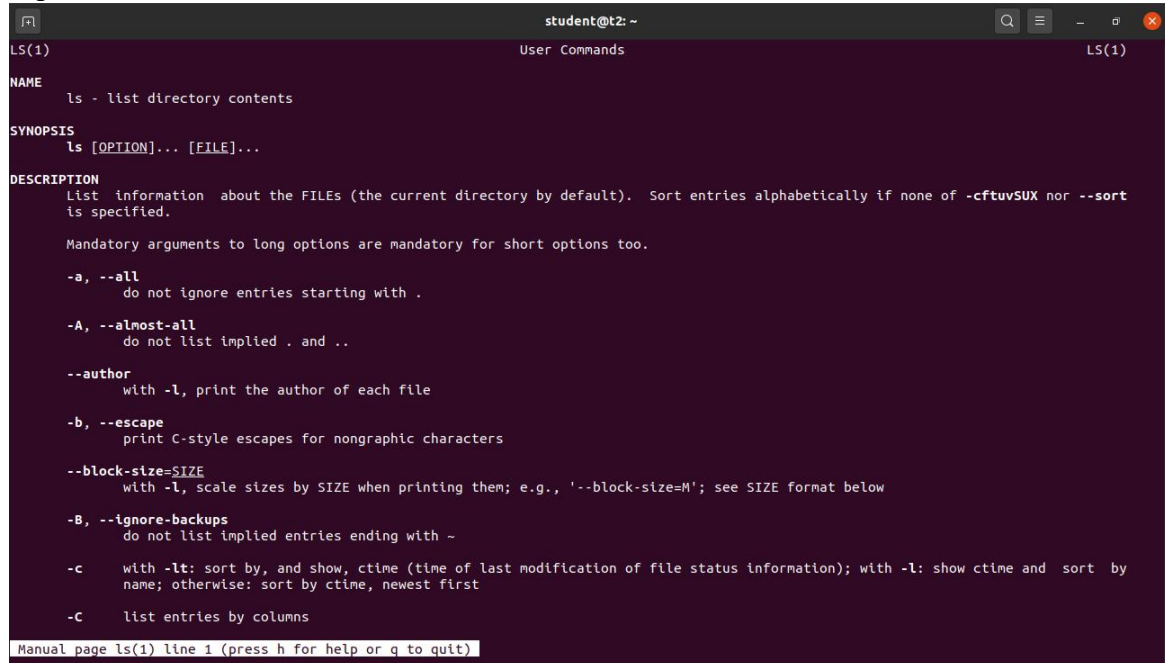
Output:

```
student@t2:~$ history
1  ./studio.sh
2  ./studio.sh
3  su mca
4  pwd
5  ls
6  ls-R
7  ls -R
8  ls -l
9  ls -a
10 ls -al
11 ls -t
12 ls -r
13 history
14 man
15 wq
16 mkdir sree
17 pwd
18 cd sree
19 pwd
20 cd ..
21 cd sree
22 touch file1.txt
23 cat > file1.txt
24 cat file1.txt
25 cat > file2.txt
26 cat file2.txt
27 cat file2.txt
28 ls
29 pwd
30 cat > file3.txt
31 cat file3.txt
32 cat >> file3.txt
33 cat file3.txt
34 cat > ajce.txt
35 cat ajce.txt
36 cat > sreehari.txt
37 cat ajce.txt sreehari.txt > s.txt
```

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

\$man ls

Output:

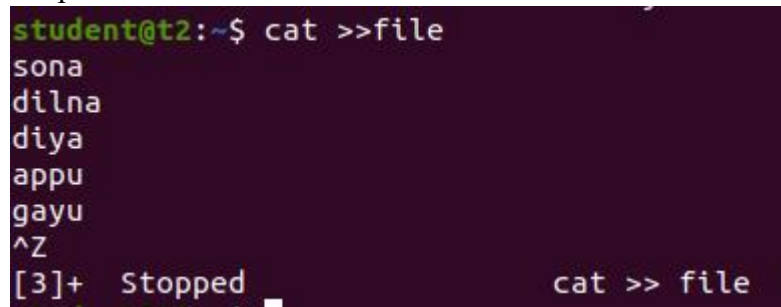


```
student@t2: ~  
LS(1) User Commands LS(1)  
NAME  
ls - list directory contents  
SYNOPSIS  
ls [OPTION]... [FILE]...  
DESCRIPTION  
List information about the FILES (the current directory by default). Sort entries alphabetically if none of -cftuvSUX nor --sort is specified.  
Mandatory arguments to long options are mandatory for short options too.  
-a, --all  
do not ignore entries starting with .  
-A, --almost-all  
do not list implied . and ..  
--author  
with -l, print the author of each file  
-b, --escape  
print C-style escapes for nongraphic characters  
--block-size=SIZE  
with -l, scale sizes by SIZE when printing them; e.g., '--block-size=M'; see SIZE format below  
-B, --ignore-backups  
do not list implied entries ending with ~  
-c with -lt: sort by, and show, ctime (time of last modification of file status information); with -l: show ctime and sort by name; otherwise: sort by ctime, newest first  
-C list entries by columns  
Manual page ls(1) line 1 (press h for help or q to quit)
```

8. cat: to create file.

- i. \$cat > [filename]

Output:

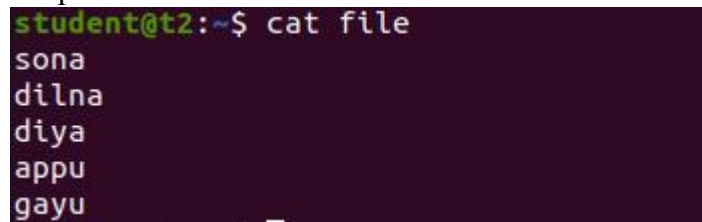


```
student@t2:~$ cat >>file  
sona  
dilna  
diya  
appu  
gayu  
^Z  
[3]+ Stopped cat >> file
```

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

\$ cat file

Output:



```
student@t2:~$ cat file  
sona  
dilna  
diya  
appu  
gayu
```

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

\$cat >> file

Output:


```
student@t2:~$ cat >>file
akhila
surya
^Z
[4]+  Stopped                  cat >> file
```

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

`$cat -n file`

Output:

```
student@t2:~$ cat -n file
 1 sona
 2 dilna
 3 diya
 4 appu
 5 gayu
 6 akhila
 7 surya
```

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

`$cat -b dinla1`

Output:

```
student@t2:~$ cat -n file
 1 sona
 2 dilna
 3 diya
 4 appu
 5 gayu
 6 akhila
 7 surya
 8
 9
10
11 irine
12 ardra
```