

Experiment No:3

Aim: Familiarisation of linux commands.

CO2: Perform system administration task.

Procedure:

1.pwd : print the working directory

\$pwd

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

2.ls : To view the contents of the directory.

\$ls

```
student@t2:~$ ls
content1  Documents  file1.txt  file3.txt  file5.txt  mariya  output.txt  Public  snap  Videos
Desktop   Downloads  file2.txt  file4.txt  jetsample  Music   Pictures    PycharmProjects  Templates
```

a.ls -R :It shows the contents of the subdirectories.

\$ls -R

```
student@t2:~$ ls -R
.:
content1  Documents  file1.txt  file3.txt  file5.txt  mariya  output.txt  Public  snap  Videos
Desktop   Downloads  file2.txt  file4.txt  jetsample  Music   Pictures    PycharmProjects  Templates

./Desktop:

./Documents:

./Downloads:

./jetsample:
mariya

./jetsample/mariya:
a.txt read read1 read3 read4

./mariya:
a.txt content1 read read1 read3 read4

./Music:

./Pictures:

./Public:
```

b. `ls -l` : To view long listing of the content
\$ `ls -l`

```
student@t2:~$ ls -l
total 76
-rw-rw-r-- 1 student student 10 Mar 7 15:24 content1
drwxr-xr-x 2 student student 4096 Jun 17 2022 Desktop
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 39 Mar 6 12:10 file1.txt
-rw-rw-r-- 1 student student 59 Mar 6 12:23 file2.txt
-rw-rw-r-- 1 student student 14 Mar 6 12:26 file3.txt
-rw-rw-r-- 1 student student 18 Mar 6 12:26 file4.txt
-rw-rw-r-- 1 student student 50 Mar 6 12:33 file5.txt
drwxrwxr-x 3 student student 4096 Mar 7 15:22 jetsample
drwxrwxr-x 2 student student 4096 Mar 7 15:24 mariya
drwxr-xr-x 2 student student 4096 Jun 17 2022 Music
-rw-rw-r-- 1 student student 50 Mar 6 12:57 output.txt
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----- 3 student student 4096 Jun 17 2022 snap
drwxr-xr-x 2 student student 4096 Jun 17 2022 Templates
```

c. `ls -a` : To list all the hidden files.
\$ `ls -a`

```
student@t2:~$ ls -a
.          .bash_logout  .config  Documents  file2.txt  file5.txt  jetsample  mariya  Pictures  PycharmProjects  Templates
..         .bashrc       content1  Downloads  file3.txt  .gnupg     .local     Music    .profile  snap            Videos
.bash_history  .cache       Desktop  file1.txt  file4.txt  .java      mariya     output.txt  Public    .ssh
```

d. `ls -al` : List the files and directory with detailed information as permission,date,size,owner etc.

`$ls -al`

```
student@t2:~$ ls -al
total 128
drwxr-xr-x 21 student student 4096 Mar  7 15:24 .
drwxr-xr-x  6 root      root    4096 Jun 17  2022 ..
-rw-r--r--  1 student student  548 Mar  6 13:03 .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 16 student student 4096 Mar  6 12:38 .cache
drwxr-xr-x 14 student student 4096 Mar  7 15:31 .config
-rw-rw-r--  1 student student   10 Mar  7 15:24 content1
drwxr-xr-x  2 student student 4096 Jun 17  2022 Desktop
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   39 Mar  6 12:10 file1.txt
-rw-rw-r--  1 student student   59 Mar  6 12:23 file2.txt
-rw-rw-r--  1 student student   14 Mar  6 12:26 file3.txt
-rw-rw-r--  1 student student   18 Mar  6 12:26 file4.txt
-rw-rw-r--  1 student student   50 Mar  6 12:33 file5.txt
drwx----- 3 student student 4096 Mar  7 15:31 .gnupg
```

e. `ls -t` : List the content in the order of last modified.

`$ls -t`

```
student@t2:~$ ls -t
Desktop content1 output.txt file4.txt file2.txt PycharmProjects Documents Music Public Videos
nariya jetsample file5.txt file3.txt file1.txt snap Downloads Pictures Templates
```

f. `ls -r` : To reverse the natural sorting order.

`$ls -r`

```
student@t2:~$ ls -r
Videos snap Public output.txt nariya file5.txt file3.txt file1.txt Documents content1
Templates PycharmProjects Pictures Music jetsample file4.txt file2.txt Downloads Desktop
```

3.history : To review the commands that have been previously executed for certain period of time.

\$history

```
student@t2:~$ history
 1  ./studio.sh
 2  ./studio.sh
 3  su mca
 4  pwd
 5  ls
 6  ls -R
 7  ls -l
 8  ls -a
 9  ls -al
10  ls -t
11  ls -r
12  history
```

4. man ls : can learn and understand about different commands.

\$man ls

```
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
```

5. mkdir : creates new directory

\$mkdir mariya1

```
student@t2:~$ mkdir mariya1
student@t2:~$ ls
content1  Desktop  Downloads  file1.txt  file2.txt  file3.txt  file4.txt  file5.txt  jetsample  mariya1  mariya  Music  output.txt  Pictures  Public  PycharmProjects  snap  Templates  Videos
student@t2:~$
```

6. cd : change directory

\$cd mariya1

```
student@t2:~$ cd mariya1
student@t2:~/mariya1$
```

7. touch : to create new file

\$touch file1.txt

```
student@t2:~/mariya1$ touch file1.txt
```

8. cat > [filename] : create a new file and open it to add content.

\$cat >file1.txt

```
student@t2:~/mariya1$ cat > file1.txt
hello world
^Z
[1]+  Stopped                  cat > file1.txt
student@t2:~/mariya1$
```

9. cat [filename] : to display file contents.

\$cat file1.txt

```
student@t2:~/mariya1$ cat file1.txt
hello world
student@t2:~/mariya1$
```

10. cat >> [filename] : to append new contents to existing file contents

\$cat >> file2.txt

```
student@t2:~/mariya1$ cat > file2.txt
good morning
good evening
^Z
[2]+  Stopped                  cat > file2.txt
student@t2:~/mariya1$
```

```
student@t2:~/mariya1$ cat >> file2.txt
welcome
hello
^Z
[3]+  Stopped                  cat >> file2.txt
```

11. cat [filename1][filename2] > [filename3] :combine the content of two files and store the content in another file.

\$cat file1.txt file2.txt > file3.txt

```
student@t2:~/mariya1$ cat file3.txt
hello world
good morning
good evening
welcome
hello
student@t2:~/mariya1$
```

```
student@t2:~/mariya1$ cat file1.txt file2.txt > file3.txt
```

12. cat -n [filename] : to display content with line numbers

\$cat -n file3.txt

```
student@t2:~/mariya1$ cat -n file3.txt
 1 hello world
 2 good morning
 3 good evening
 4 welcome
 5 hello
```

13. cat [filename] | tr a-z A-Z > [filename] : to convert the content to capital letters

\$cat file3.txt | tr a-z A-Z > output.txt

```
student@t2:~/mariya1$ cat file3.txt | tr a-z A-Z > output.txt
student@t2:~/mariya1$ cat output.txt
HELLO WORLD
GOOD MORNING
GOOD EVENING
WELCOME
HELLO
```