Experiment no:3 Date:09-03-2023

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
Desktop    Downloads  file2.txt  Pictures  PycharmProjects  sree   sreelakshmi  sree.txt  srilakshmi  Templates  you
Documents  file1.txt  Music      Public    snap             Sree1  sreel.txt    sri       sri.txt     Videos
```

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

```
student@t2:~$ ls -R
.:
Desktop    Downloads  file2.txt  Pictures  PycharmProjects  sree   sreelakshmi  sree.txt  srilakshmi  Templates  you
Documents  file1.txt  Music      Public    snap             Sree1  sreel.txt    sri       sri.txt     Videos

./Desktop:

./Documents:

./Downloads:

./Music:

./Pictures:
```

ii. ls -l: long listing,
$ls -l
Output:

```
student@t2:~$ ls -l
total 76
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    0 Mar  6 12:08 file1.txt
-rw-rw-r-- 1 student student    0 Mar  6 12:14 file2.txt
drwxr-xr-x 2 student student 4096 Jun 17  2022 Music
drwxr-xr-x 2 student student 4096 Mar  7 16:58 Pictures
drwxr-xr-x 2 student student 4096 Jun 17  2022 Public
drwxrwxr-x 3 student student 4096 Jun 17  2022 PycharmProjects
```

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

```
student@t2:~$ ls -a
.              .bash_logout  .config    Downloads  .gnupg   .mozilla  .pki       PycharmProjects  Sree1       sree.txt   sri.txt   Videos
..             .bashrc       Desktop    file1.txt  .java    Music     .profile   snap             sreelakshmi sri         .ssh      you
.bash_history  .cache        Documents  file2.txt  .local   Pictures  Public     sree             sreel.txt   srilakshmi Templates
```

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

```
student@t2:~$ ls -al
total 132
drwxr-xr-x 26 student student 4096 Mar  7 16:43 .
drwxr-xr-x  6 root    root    4096 Jun 17  2022 ..
-rw-------  1 student student 1517 Mar  7 17:03 .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 19 student student 4096 Mar  7 16:43 .cache
drwxr-xr-x 17 student student 4096 Mar  9 14:16 .config
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    0 Mar  6 12:08 file1.txt
-rw-rw-r--  1 student student    0 Mar  6 12:14 file2.txt
drwx------  3 student student 4096 Mar  9 14:17 .gnupg
```

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

```
student@t2:~$ ls -t
Pictures    Sree1  you       sree.txt  file2.txt  sree        PycharmProjects  Desktop    Downloads  Public     Videos
srilakshmi  sri    sreel.txt  sri.txt   file1.txt  sreelakshmi  snap            Documents  Music      Templates
```

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

```
student@t2:~$ ls -r
you     Templates  srilakshmi  sree.txt   sreelakshmi  sree  PycharmProjects  Pictures  file2.txt  Downloads  Desktop
Videos  sri.txt    sri         sreel.txt  Sree1        snap  Public           Music     file1.txt  Documents
```

3. mkdir: to make the directory
$mkdir [filename]
Output:

```
student@t2:~$ mkdir dilna
student@t2:~$ ls
Desktop  Documents  file1.txt  Music     Public          snap  Sree1        sreel.txt  sri         sri.txt    Videos
dilna    Downloads  file2.txt  Pictures  PycharmProjects  sree  sreelakshmi  sree.txt   srilakshmi  Templates  you
```

4. cd: to navigate through the directory.
$cd [filename]
Output:

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

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

```
student@t2:~/dilna$ cd -
/home/student
```

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 -l
    8  ls -a
    9  ls -al
   10  ls -t
   11  ls -r
   12  history
   13  wq
   14  man ls
   15  mkdir sreelakshmi
   16  mkdir srilakshmi
```

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:~$ cat >dil
diya
destimona
ardra
^Z
[1]+  Stopped                 cat > dil
```

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

$ cat dil

Output:

```
student@t2:~$ cat dil
diya
destimona
ardra
```

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

$cat >> dinla1

Output:

```
student@t2:~$ cat >>dil
tim
ashwathy
ginger^Z
[2]+  Stopped                 cat >> dil
```

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

$cat -n dil

Output:

```
student@t2:~$ cat -n dil
     1  diya
     2  destimona
     3  ardra
     4  tim
     5  ashwathy
     6  pink panther
```

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

$cat -b dinla1

Output:

```
student@t2:~$ cat -b dil
     1  diya
     2  destimona
     3  ardra
     4  tim
     5  ashwathy
     6  pink panther


     7  jkjf
```

Experiment no:4 10-03-2023

Aim: Familiarization with Linux command.

CO2: Perform system administration tasks.

Procedure:

2. cut -c 1 [filename]: For cutting out the section from each line and write the result for standerd output.

$cut -c 1,3 demo

Output:

```
student@t2:~/dilna$ cut -c 1,3 demo
ml
eg
mt
```

i. cut -b 2[filename]:Cut by position.

$cut -b 1,3 demo

Output:

```
student@t2:~/dilna$ cut -b 1,3 demo
ml
eg
mt
```

ii. cut -d [filename] -f1 [filename]:To cut by delimiter.

$cut -d - -f2 demo

Output:

```
student@t2:~/dilna$ cut -d - -f2 demo
90
100
100
90
70
50
```

iii. cut -compliment -c 1 [filename]:To cut by delimiter.

$ cut -compliment -c 1 demo

Output:

```
student@t2:~/dilna$ cut --complement -c 1 demo
alayalam-90
nglish-100
aths-100
indi-90
iology-70
ocial-50
se:30
sa:80
bms:50
```

2. paste [filename] [filename]:To paste the content of one file to another.

$paste demo dil

Output:

```
student@t2:~/dilna$ paste demo dil
malayalam-90    abc
english-100     dfg
maths-100       ert
hindi-90        mal-90
biology-70      maths-100
social-50       eng-200
ase:30
nsa:80
dbms:50
social science
```

i. paste -d '%' [filename] [filename] >[filename]:To paste filr to another file by delimer.

$ paste -d '%' ark1 ark2 >ark3

Output:

```
student@t2:~/dilna$ paste -d '%' ark1 ark2 > ark3
student@t2:~/dilna$ cat ark3
a-90%c-100
b-90%d-80
```

3.cp [filename] [filename]:Use to copy a file or dictionary.

$cp demo test

Output :

```
student@t2:~/dilna$ cp demo test
student@t2:~/dilna$ cat test
malayalam-90
english-100
maths-100
hindi-90
biology-70
```

i. cp -r [filename] [filename] :to copy file.

$cp -r dilna trail

Output:

```
student@t2:~$ cp -r dilna trail
student@t2:~$ ls
demo     dil    Documents  file1.txt  Music     Public          snap  Sree1       sreel.txt  sri         sri.txt    trail   you
Desktop  dilna  Downloads  file2.txt  Pictures  PycharmProjects  sree  sreelakshmi  sree.txt   srilakshmi  Templates  Videos
student@t2:~$ cd trail
student@t2:~/trail$ ls
ark1  ark2  ark3  demo  dil  nsa  test  tet2
```

ii. cp [filename] [filename] :Copy to an existing file.

$cp test1 test2

Output :

```
student@t2:~/trail$ cat >test1
hi
hello
^Z
[1]+  Stopped                 cat > test1
student@t2:~/trail$ cat >test2
sunday m

monday
^Z
[2]+  Stopped                 cat > test2
student@t2:~/trail$ cp test1 test2
student@t2:~/trail$ cat test2
hi
hello
```