

Experiment No.: 3

Aim

Familiarization of linux commands

CO2

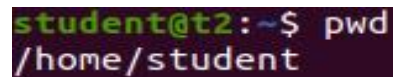
Perform system administration tasks

Procedure

1.pwd-To print working directory

\$pwd

Output Screenshot



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

2.ls-Used to list the files and contents

\$ls

Output Screenshot



```
student@t2:~$ ls
command.odt  Downloads  file4.txt  jeeva      PycharmProjects
conten1      file1.txt  file5.txt  Music      snap
Desktop      file2.txt  file6.txt  Pictures   Templates
Documents    file3.txt  jeejay    Public     Videos
```

(a).ls-R-Detailed view of sub directory

\$ls-R

Output Screenshot

```

student@t2:~$ ls -R
.:
command.odt  Downloads  file4.txt  jeeva      PycharmProjects
conten1      file1.txt  file5.txt  Music      snap
Desktop      file2.txt  file6.txt  Pictures   Templates
Documents    file3.txt  jeejay    Public     Videos

./Desktop:

./Documents:

./Downloads:

./jeejay:
days file1.txt file2.txt file3.txt jeeva

./jeejay/jeeva:
mark2.txt marks2.txt marks.txt names.txt

./jeeva:
conten1 mark2.txt marks2.txt marks.txt names.txt

./Music:

./Pictures:
'Screenshot from 2023-03-07 16-23-21.png'

./Public:

./PycharmProjects:
pythonProject

```

(b).ls-l-long listing of contents

\$ls

Output Screenshot

```

student@t2:~$ ls -l
total 384
-rw-rw-r-- 1 student student 313175 Mar  7 16:55 command.odt
-rw-rw-r-- 1 student student    29 Mar  7 15:28 conten1
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    62 Mar  6 12:10 file1.txt
-rw-rw-r-- 1 student student   102 Mar  6 12:22 file2.txt
-rw-rw-r-- 1 student student    22 Mar  6 12:26 file3.txt
-rw-rw-r-- 1 student student    26 Mar  6 12:27 file4.txt
-rw-rw-r-- 1 student student    60 Mar  6 12:36 file5.txt
-rw-rw-r-- 1 student student    60 Mar  6 12:56 file6.txt
drwxrwxr-x 3 student student  4096 Mar  7 16:50 jeejay
drwxrwxr-x 2 student student  4096 Mar  7 15:29 jeeva
drwxr-xr-x 2 student student  4096 Jun 17  2022 Music
drwxr-xr-x 2 student student  4096 Mar  7 16:24 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
drwxr-xr-x 2 student student  4096 Jun 17  2022 Videos

```

(c).ls-a-used to view hidden files

\$ls-a

Output Screenshot

```
student@t2:~$ ls -a
.          command.odt  file1.txt  .gnupg    Music      snap
..         .config      file2.txt  .java     Pictures   .ssh
.bash_history  conten1    file3.txt  jeejay    .pki       Templates
.bash_logout  Desktop    file4.txt  jeeva     .profile   Videos
.bashrc       Documents  file5.txt  .local    Public
.cache        Downloads  file6.txt  .mozilla  PycharmProjects
```

(d).ls-al-Detailed information can view along with hidden files.

\$ls-al

Output Screenshot

```
student@t2:~$ ls -al
total 440
drwxr-xr-x 22 student student 4096 Mar  7 16:55 .
drwxr-xr-x  6 root    root    4096 Jun 17  2022 ..
-rw-r--r--  1 student student 1489 Mar  7 16:55 .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 18 student student 4096 Mar  7 16:11 .cache
-rw-rw-r--  1 student student 313175 Mar  7 16:55 command.odt
drwxr-xr-x 15 student student 4096 Mar  7 16:09 .config
-rw-rw-r--  1 student student  29 Mar  7 15:28 conten1
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  62 Mar  6 12:10 file1.txt
-rw-rw-r--  1 student student 102 Mar  6 12:22 file2.txt
-rw-rw-r--  1 student student  22 Mar  6 12:26 file3.txt
-rw-rw-r--  1 student student  26 Mar  6 12:27 file4.txt
-rw-rw-r--  1 student student  60 Mar  6 12:36 file5.txt
-rw-rw-r--  1 student student  60 Mar  6 12:56 file6.txt
drwx----- 3 student student 4096 Mar  9 14:17 .gnupg
drwxrwxr-x  4 student student 4096 Jun 17  2022 .java
drwxrwxr-x  3 student student 4096 Mar  7 16:50 jeejay
drwxrwxr-x  2 student student 4096 Mar  7 15:29 jeeva
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
drwxr-xr-x  2 student student 4096 Mar  7 16:24 Pictures
```

(e).ls-t-To list the files sorted in order of last modified.

\$ls-t

Output Screenshot

```
student@t2:~$ ls -t
command.odt  conten1  file3.txt  snap      Music
jeejay       file6.txt file2.txt  Desktop   Public
Pictures     file5.txt file1.txt  Documents Templates
jeeva        file4.txt PycharmProjects Downloads  Videos
```

3. mkdir-To make a new directory

\$mkdir abhina

Output Screenshot

```
student@t2:~$ mkdir abhina
```

```
student@t2:~$ ls
abhina  Documents  file3.txt  jeejay  Public  Videos
command.odt Downloads  file4.txt  jeeva   PycharmProjects
conten1  file1.txt  file5.txt  Music   snap
Desktop  file2.txt  file6.txt  Pictures Templates
```

4.cd-To navigate through directory we used cd

\$cd abhina

Output Screenshot

```
student@t2:~$ cd abhina
```

5.cd.. or cd-- -To move one directory up

\$cd-- \$cd..

Output Screenshot

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

6.history-To view the history and commands which we have been executed for a long time.

\$history

Output Screenshot


```
student@t2:~/abhina$ 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  man man
16  man ls
17  man cat
18  mkdir jeeva
19  cd jeeva
20  pwd
21  cd ..
22  rmdir jeeva
23  mkdir jeeva
24  cd jeeva
25  cd ..
26  touch file1.txt
27  cat > file1.txt
28  cat file1.txt
29  cat > file2.txt
30  cat file2.txt
31  cat >> file2.txt
32  cat file2.txt
33  cat >> file2.txt
34  cat file2.txt
35  cat > file3.txt
36  cat > file4.txt
```

7.man-We can learn &understand with different commands write from the shell using man commands.

\$manls

Output Screenshot

```

student@t2: ~/abhina
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 a new file.

\$cat > file name

Output Screenshot

```
student@t2:~/abhina$ cat > file1
iron man
captain america
groot
^Z
[2]+  Stopped                  cat > file1
```

(a).cat filename-To display contents

\$cat filename

Output Screenshot

```
student@t2:~/abhina$ cat file1
iron man
captain america
groot
```

(b).cat>>-To append content to the file

\$cat >> filename

Output Screenshot

```
student@t2:~/abhina$ cat >> file1
Dr Strange
Captain marvel
black widow
^Z
[3]+  Stopped                  cat >> file1
```

```
student@t2:~/abhina$ cat file1
iron man
captain america
groot
Dr Strange
Captain marvel
black widow
```

(c).cat-n-To display the the line number

\$cat-n filename

Output Screenshot

```
student@t2:~/abhina$ cat -n file1
 1 iron man
 2 captain america
 3 groot
 4 Dr Strange
 5 Captain marvel
 6 black widow
```

(d).cat-b-Removing the empty line numbering

\$cat-b

Output Screenshot

```
student@t2:~/abhina$ cat >> file1

rocket
nebula
spiderman
^Z
[4]+  Stopped                  cat >> file1
student@t2:~/abhina$ cat file1
iron man
captain america
groot
Dr Strange
Captain marvel
black widow

rocket
nebula
spiderman
student@t2:~/abhina$ cat -n file1
 1 iron man
 2 captain america
 3 groot
 4 Dr Strange
 5 Captain marvel
 6 black widow
 7
 8
 9
10
11 rocket
12 nebula
13 spiderman
```

```
student@t2:~/abhina$ cat -b file1
1  iron man
2  captain america
3  groot
4  Dr Strange
5  Captain marvel
6  black widow

7  rocket
8  nebula
9  spiderman
```

Result

The program was executed and the result was successfully obtained. Thus CO2 was obtained.

Experiment No.: 4

Aim

Familiarization with Linux command.

CO2

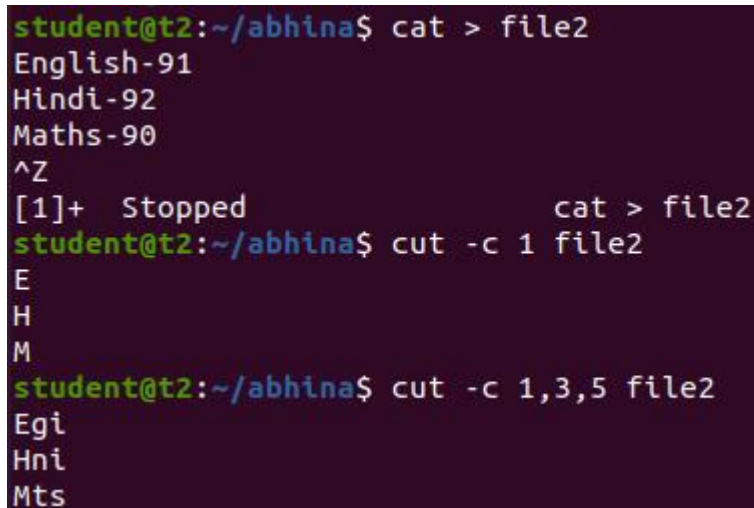
Perform system administration tasks.

Procedure

1. i. cut -c[filename]: To cut by character,for cutting out sections from each line of file and writting the result to standard output.

```
$ cut -c 1,3,5 file1
```

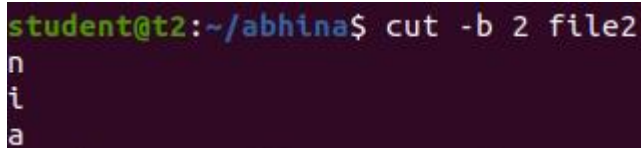
Output Screenshot



```
student@t2:~/abhina$ cat > file2
English-91
Hindi-92
Maths-90
^Z
[1]+  Stopped                  cat > file2
student@t2:~/abhina$ cut -c 1 file2
E
H
M
student@t2:~/abhina$ cut -c 1,3,5 file2
Egi
Hni
Mts
```

- ii. cut -b :To cut by byte position
\$ cut -b 2 file1

Output Screenshot



```
student@t2:~/abhina$ cut -b 2 file2
n
i
a
```

- iii. cut -d : To cut by delimiter
\$ cut -d - -f1 file1

Output Screenshot

```
student@t2:~/abhina$ cut -d - -f1 file2
English
Hindi
Maths
```

- iv.. cut - complement : Cut by complement pattern
\$ cut -- complement -c 1 file1

Output Screenshot

```
student@t2:~/abhina$ cat >> file2
History.88
Chemistry.89
^Z
[3]+ Stopped cat >> file2
student@t2:~/abhina$ cat file2
English-91
Hindi-92
Maths-90
Malayalam*95
History.88
Chemistry.89
student@t2:~/abhina$ cut -d . -f1 file2
English-91
Hindi-92
Maths-90
Malayalam*95
History
Chemistry
student@t2:~/abhina$ cut --complement -c 1 file2
nglish-91
indi-92
aths-90
alayalam*95
istory.88
hemistry.89
```

2. paste : Paste command is used to join files consist of lines from each file horizontally outputing lines.
i. \$ paste file2 file

Output Screenshot

```
student@t2:~/abhina$ paste file3 file2
Biology 83      English-90
      Maths-91
      Hindi-92
```

```
ii.$ paste -d '%' mk1 mk2 >mk3
$ cat mk3
```

Output Screenshot

```
student@t2:~/abhina$ cat > mk1
A-70
B-89
^Z
[6]+  Stopped                  cat > mk1
student@t2:~/abhina$ cat > mk2
C-99
D-82
^Z
[7]+  Stopped                  cat > mk2
student@t2:~/abhina$ paste -d '%' mk1 mk2 > mk3
student@t2:~/abhina$ cat mk3
A-70%C-99
B-89%D-82
```

Result

The program was executed and the result was successfully obtained. Thus CO2 was obtained.

