

## **Experiment No.: 1**

### **Aim**

Familiarisation of linux commands.

### **CO1**

Perform system administration task.

### **Procedure**

#### **1. pwd (Print Working Directory)**

To find out the path of the current working directory (folder) you're in.

Commad: \$pw

### **Output Screenshot**

```
student@U33:~$ pwd
/home/student
```

#### **2. ls**

The ls command is used to view the contents of a directory. By default, this command will display the contents of your current working directory.

##### **a. ls -R:**

ls -R will list all the files in the sub-directories as well

Command: \$ls-R

### **Output Screenshot**

```
student@U33:~$ ls -R
.:
'c programming'  exam2.c      file.txt      output.txt    sisira
Desktop          examples.desktop  good          Pictures      snap
Documents        file6.txt     hello         Public        Templates
Downloads        file7.trt     Music         PycharmProjects  Videos
exam1.c          files.txt     new2.txt      SDlab

'./c programming':
```

##### **b. ls -l:**

ls -l – long listing

Commad: \$ls-l

### Output Screenshot

```
student@U33:~$ ls -l
total 104
drwxr-xr-x 2 student student 4096 Oct 13 12:57 'c programming'
drwxr-xr-x 2 student student 4096 Mar 7 15:50 Desktop
drwxr-xr-x 2 student student 4096 Mar 31 2022 Documents
drwxr-xr-x 2 student student 4096 Apr 27 2022 Downloads
-rw-rw-r-- 1 student student 437 Mar 31 2022 exam1.c
-rw-rw-r-- 1 student student 4236 Mar 31 2022 exam2.c
-rw-r--r-- 1 student student 8980 Mar 30 2022 examples.desktop
-rw-r--r-- 1 student student 62 Mar 6 12:36 file6.txt
-rw-r--r-- 1 student student 17 Mar 6 12:58 file7.trt
-rw-r--r-- 1 student student 8 Mar 6 12:30 files.txt
-rw-r--r-- 1 student student 6 Mar 6 12:29 file.txt
```

#### c. ls-a:

ls -a will show the hidden files

Commad: \$ls-a

### Output Screenshot

```
student@U33:~$ ls -a
.          .cache      Downloads   file7.trt   hello       Music       .pki       sistra
..         .config     exam1.c     files.txt   .ICEauthority new2.txt    .profile   snap
.bash_history 'c programming' exam2.c     file.txt   .java       .oracle_jre_usage Public     .ssh
.bash_logout Desktop     examples.desktop .gnupg     .local      output.txt  PycharmProjects Templates
.bashrc     Documents  file6.txt   good       .mozilla    Pictures    SDlab      Videos
```

#### d. ls-al:

ls -al will list the files and directories with detailed information like the permissions, size, owner, etc.

Command: \$ls-al

## Output Screenshot

```

student@U33:~$ ls -al
total 172
drwxr-xr-x 26 student student 4096 Mar  7 15:33 .
drwxr-xr-x  7 root     root    4096 May  9  2022 ..
-rw-r--r--  1 student student 3119 Mar  7 15:52 .bash_history
-rw-r--r--  1 student student  220 Mar 30  2022 .bash_logout
-rw-r--r--  1 student student 3771 Mar 30  2022 .bashrc
drwx----- 15 student student 4096 Oct 12 16:42 .cache
drwx----- 19 student student 4096 Oct 12 16:42 .config
drwxr-xr-x  2 student student 4096 Oct 13 12:57 'c programming'
drwxr-xr-x  2 student student 4096 Mar  7 16:00 Desktop
drwxr-xr-x  2 student student 4096 Mar 31  2022 Documents
drwxr-xr-x  2 student student 4096 Apr 27  2022 Downloads
-rw-rw-r--  1 student student  437 Mar 31  2022 exam1.c
-rw-rw-r--  1 student student 4236 Mar 31  2022 exam2.c
-rw-r--r--  1 student student 8980 Mar 30  2022 examples.desktop
-rw-r--r--  1 student student   62 Mar  6 12:36 file6.txt
-rw-r--r--  1 student student   17 Mar  6 12:58 file7.trt
-rw-r--r--  1 student student    8 Mar  6 12:30 files.txt

```

### e. ls-t

ls -t lists files sorted in the order of “last modified”

Command: \$ls-t

## Output Screenshot

```

student@U33:~$ ls
'c programming'  exam2.c      file.txt     output.txt   sisira
Desktop          examples.desktop  good        Pictures     snap
Documents       file6.txt     hello       Public       Templates
Downloads       file7.trt    Music       PycharmProjects  Videos
exam1.c         files.txt    new2.txt    SDlab

```

### f. ls -r

To reverse the natural Sorting order

Command: \$ls -r

## Output Screenshot

```
student@U33:~$ ls -lr
Videos      sisira      Public      new2.txt    good        file7.trt   exam2.c     Documents
Templates   SDlab       Pictures    Music       file.txt    file6.txt   exam1.c     Desktop
snap        PycharmProjects output.txt  hello       files.txt   examples.desktop Downloads    'c programming'
```

### 3. history

To review the commands, you have entered before. ! command number to run a command from history.

Command: \$ history

## Output Screenshot

```
student@U33:~$ history
 1 read a
 2 echo a
 3 read a
 4 echo a
 5 echo "a"
 6 echo $a
 7 read a
 8 echo $a
 9 du
10 du -s
11 user add archa
12 useradd archa
13 du -s
14 find
15 useradd archa
16 sudo useradd archa
17 ls
18 mkdir SDlab
19 ls
20 cd SDlab
21 cat>> eg.txt
22 cat eg.txt
23 cat >> eg.txt
24 cat eg.txt
25 wc -l
26 wc -l eg.txt
27 wc -L eg.txt
28 wc -w eg.txt
29 cut -c5 eg.txt
30 cat >> eg1.txt
31 cat eg1.txt
32 paste eg.txt eg1.txt
33 paste -d "!" eg.txt
34 paste -d "!" eg.txt eg1.txt
```

## 4. man

We can learn and understand about different command right from the shell using man command

Command: \$man ls

### Output Screenshot

```
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

Command: \$mkdir sisira

### Output Screenshot

```
student@U33:~$ mkdir demo
student@U33:~$ cd demo
student@U33:~/demo$
```

## 6. rmdir

To remove directory

Command: \$rmdir sisira

### Output Screenshot

```
student@U33:~$ rmdir demo
student@U33:~$ ls
'c programming'  Downloads  examples.desktop  files.txt  hello  output.txt  PycharmProjects  snap
Desktop          exam1.c    file6.txt         file.txt   Music  Pictures    SDlab            Templates
Documents        exam2.c    file7.trt         good       new2.txt  Public      sisira           Videos
student@U33:~$
```

## 7. Touch

The touch command allows you to create a blank new file through the Linux command line.

Command: \$touch file.txt

### Output Screenshot

```
student@U33:~$ touch file2
student@U33:~$ ls
'c programming'  Downloads  examples.desktop  file6.txt  file.txt  Music  Pictures  SDlab  Templates
Desktop          exam1.c    file1             file7.trt  good     new2.txt  Public  sisira  Videos
Documents        exam2.c    file2             files.txt  hello    output.txt  PycharmProjects  snap
```

## 8. Cat

It is used to list the contents of a file on the standard output.

### a. Cat > file2

Create a new file and open it to add content

Command: \$cat > [filename]

### Output Screenshot

```
student@U33:~$ cat > file2
hello
welcome
good
average
^Z
[1]+  Stopped                  cat > file2
```

### b. cat >> [filename]

To append new contents to existing file contents

Command:\$cat >> [filename]

### Output Screenshot

```
student@U33:~$ cat >> file2
king
queen
red
^Z
[2]+  Stopped                  cat >> file2
```

**C. cat [filename]**

To display file contents.

Command: \$cat filename

**Output Screenshot**

```
student@U33:~$ cat file2
hello
welcome
good
average
king
queen
red
student@U33:~$
```

**d. cat -n [filename]:**

To display content with line numbers

Command: \$cat -n filename

**Output Screenshot**

```
student@t2:~$ cat -n colors
 1 red
 2 blue
 3 yellow
 4 black
 5 green
 6 white
```

**e. cat -b [filename]:**

No line numbering for blank spacing.

Command: \$cat -b filename

## Output Screenshot

```
student@t2:~$ cat -b colors
 1 red
 2 blue
 3 yellow
 4 black
 5 green
 6 white
 7 magenta
```

### **f. cat -e [filename]:**

To display \$ character at the end of each line.

Commad: \$cat -e [filename]

## Output Screenshot

```
student@t2:~$ cat -e colors
red$
blue$
yellow$
black$
green$
white$
$
$
$
magenta$
```

## Result

The program was executed and the result was successfully obtained. Thus CO1 was obtained.



