

NETWORKING & SYSTEM ADMINISTRATION LAB

Experiment No.: 3

Name: Vishnu Vijayakumar
Roll No:53
Batch B
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Aim

Familiarization of basic Linux commands.

Procedure

1. **pwd** : stands for ‘print working directory’. It gives information about the directory where the user is working currently.

Syntax : \$ **pwd**

Output :

```
student@553:~$ pwd
/home/student
student@553:~$ mkdir vishnuy
```

2. **mkdir** : used to create a folder or a directory.

Syntax : \$ **mkdir** [folder name]

Output:

```
student@553:~$ mkdir vishnuy
student@553:~$ pwd
/home/student
```

3. **ls** : This command lists files and directories within the file system, and shows detailed information about them.

Syntax : \$ **ls**

Output :

```
student@S53:~$ ls
Desktop  Downloads  Music  Public  snap  Videos
Documents examples.desktop  Pictures  PycharmProjects  Templates  vishnuv
```

- 4. ls -l :** it refers to long listing of information. This shows a lot more information.

Syntax : \$ ls -l

Output:

```
student@S53:~$ ls -l
total 56
drwxr-xr-x 5 student student 4096 Nov 26 10:32 Desktop
drwxr-xr-x 3 student student 4096 Feb 14 10:04 Documents
drwxr-xr-x 2 student student 4096 Dec 20 12:32 Downloads
-rw-r--r-- 1 student student 8980 Oct 4 22:24 examples.desktop
drwxr-xr-x 2 student student 4096 Oct 5 15:25 Music
drwxr-xr-x 2 student student 4096 Oct 5 15:25 Pictures
drwxr-xr-x 2 student student 4096 Oct 5 15:25 Public
drwxrwxr-x 7 student student 4096 Jan 3 12:32 PycharmProjects
drwx----- 4 student student 4096 Dec 20 12:25 snap
drwxr-xr-x 2 student student 4096 Oct 5 15:25 Templates
drwxr-xr-x 2 student student 4096 Oct 5 15:25 Videos
drwxr-xr-x 2 student student 4096 Mar 24 14:29 vishnuv
```

- 5. ls -R :** it will display the content of the sub-directories also.

Syntax: \$ ls -R

Output:

```
student@S53:~$ ls -R
.:
Desktop  Downloads  Music  Public  snap  Videos
Documents examples.desktop  Pictures  PycharmProjects  Templates  vishnuv
```

6. ls -a : this command will enlist the whole list of the current directory including the hidden files.

Syntax: \$ ls -a

Output:

```
student@S53:~$ ls -a
.          Documents      Music       .ssh
..         Downloads     .oracle_jre_usage  Templates
.bash_history examples.desktop Pictures   .thunderbird
.bash_logout  .gnupg       .pki        Videos
.bashrc      .ICEauthority .profile    vishnuv
.cache       .java        Public
.config      .local       PycharmProjects
Desktop     .mozilla     snap
```

7. ls -al : it display all files and subdirectories in the current directory, including hidden files ,permissions etc..

Syntax: \$ ls -al

Output:

```
student@553:~$ ls -al
total 128
drwxr-xr-x 23 student student 4096 Mar 24 14:29 .
drwxr-xr-x  6 root    root   4096 Jan 13 14:49 ..
-rw-----  1 student student  83 Oct 29 16:04 .bash_history
-rw-r--r--  1 student student 220 Oct  4 22:24 .bash_logout
-rw-r--r--  1 student student 3771 Oct  4 22:24 .bashrc
drwx----- 16 student student 4096 Dec 20 11:44 .cache
drwx----- 20 student student 4096 Dec 20 11:44 .config
drwxr-xr-x  5 student student 4096 Nov 26 10:32 Desktop
drwxr-xr-x  3 student student 4096 Feb 14 10:04 Documents
drwxr-xr-x  2 student student 4096 Dec 20 12:32 Downloads
-rw-r--r--  1 student student 8980 Oct  4 22:24 examples.desktop
drwx-----  3 student student 4096 Nov  1 11:15 .gnupg
-rw-----  1 student student 7956 Mar 24  2022 .ICEauthority
drwxrwxr-x  4 student student 4096 Nov  1 11:15 .java
drwx-----  3 student student 4096 Oct  5 15:25 .local
drwx-----  5 student student 4096 Nov  1 11:21 .mozilla
drwxr-xr-x  2 student student 4096 Oct  5 15:25 Music
drwxrwxr-x  2 student student 4096 Nov 18 11:16 .oracle_jre_usage
drwxr-xr-x  2 student student 4096 Oct  5 15:25 Pictures
drwx-----  3 student student 4096 Oct 29 15:14 .pki
-rw-r--r--  1 student student 807 Oct  4 22:24 .profile
drwxr-xr-x  2 student student 4096 Oct  5 15:25 Public
drwxrwxr-x  7 student student 4096 Jan  3 12:32 PycharmProjects
drwx-----  4 student student 4096 Dec 20 12:25 snap
drwx-----  2 student student 4096 Nov  1 11:15 .ssh
```

8. ls -t : it lists the files/directories in last modified order.

Syntax: \$ ls -t

Output:

```
student@SS3:~$ ls -t
vishnuv PycharmProjects snap Music Public Videos
Documents Downloads Desktop Pictures Templates examples.desktop
student@SS3:~$ cd vishnuv
student@SS3:~/vishnuv$ cd ..
student@SS3:~$
```

9. cd : is used to change the current working directory (i.e., in which the current user is working). The "cd" stands for 'change directory.'

Syntax: \$ cd [file name]

Output:

```
student@SS3:~$ cd vishnuv
student@SS3:~/vishnuv$ cd ..
student@SS3:~$ cd -
/home/student/vishnuv
```

10. cd .. : to navigate up one directory level.

Syntax: \$ cd ..

Output:

```
student@SS3:~/vishnuv$ cd ..
student@SS3:~$ cd -
/home/student/vishnuv
```

11. cd - . : to navigate to the previous directory (or back).

Syntax: \$ cd

Output:

```
student@S53:~$ cd vishnuv
student@S53:~/vishnuv$ cd ..
student@S53:~$ cd -
/home/student/vishnuv
```

- 12. cat > filename .txt :** a new test file can be created and then content can be entered.

Syntax : \$ cat > filename.txt

Output:

```
/home/student/vishnuv
student@S53:~/vishnuv$ cat > v.txt
Network and Administration
^Z
[1]+  Stopped                  cat > v.txt
```

- 13.cat filename.txt :** the content of the test file created, can be displayed.

Syntax : \$ cat filename.txt

Output:

```
/home/student/vishnuv
student@S53:~/vishnuv$ cat > v.txt
Network and Adminstration
^Z
[1]+  Stopped                  cat > v.txt
student@S53:~/vishnuv$ cat v.txt
Network and Administration
student@S53:~/vishnuv$ cat >> v.txt
```

14.cat >> filename.txt : more contents can be added to the test file created. Then the

new test file formed is displayed.

Syntax : **\$ cat >> filename.txt**

Output:

```
[1]+ Stopped                  cat > v.txt
student@SS3:~/vishnuv$ cat v.txt
Network and Administration
student@SS3:~/vishnuv$ cat >> v.txt
AJCE Batch B
^Z
[2]+ Stopped                  cat >> v.txt
student@SS3:~/vishnuv$ cat v.txt
Network and Administration
AJCE Batch B
student@SS3:~/vishnuv$
```

15. cat file1.txt> file2.txt : used to copy a source text file to another one and then

content of the new file can be displayed.

Syntax : \$ cat file1.txt> file2.txt

Output:

```
cat: v: No such file or directory
student@SS3:~/vishnuv$ cat v.txt > b.txt
student@SS3:~/vishnuv$ cat b.txt
Network and Administration
AJCE Batch B
student@SS3:~/vishnuv$
```