

Experiment No.: 7

Date: 20-03-2023

AIM: Familiarization of linux commands.

CO2: Perform system administration task.

Procedure:

1. Expr : Evaluate the given expression and display the result

```
student@t2:~/keerthi$ read x
30
student@t2:~/keerthi$ read y
15
student@t2:~/keerthi$ expr x + y
expr: non-integer argument
student@t2:~/keerthi$ expr $x + $y
45
```

2. df : Get a report on system disk space usage

```
student@t2:~/keerthi$ df
Filesystem      1K-blocks      Used Available Use% Mounted on
udev             3952492          0   3952492   0% /dev
tmpfs            797752         1724    796028   1% /run
/dev/sda6       143874460 25465288 110268580  19% /
tmpfs           3988756          0   3988756   0% /dev/shm
tmpfs            5120           4     5116    1% /run/lock
tmpfs           3988756          0   3988756   0% /sys/fs/cgroup
/dev/loop1       56960         56960          0 100% /snap/core18/2708
/dev/loop4       64896         64896          0 100% /snap/core20/1828
/dev/loop2       246656        246656          0 100% /snap/gnome-3-34-1804/24
/dev/loop9       93952         93952          0 100% /snap/otk-common-themes/1535
```

3. du : used to checks how much space a file or dir takes in the current directory

```
student@t2:~/keerthi$ ls
file.txt mark mark1 mark2 mark3
student@t2:~/keerthi$ du c.txt
du: cannot access 'c.txt': No such file or directory
student@t2:~/keerthi$ du mark3
4      mark3
student@t2:~/keerthi$ du file.txt
4      file.txt
student@t2:~/keerthi$ du mark
4      mark
student@t2:~/keerthi$ du mark2
4      mark2
```

4. Create new user

```
mca@t2:~$ sudo useradd keerthi  
[sudo] password for mca:  
mca@t2:~$ sudo passwd keerthi
```

Change password of new user

```
mca@t2:~$ sudo passwd keerthi  
New password:  
Retype new password:  
passwd: password updated successfully
```

Create new group

```
mca@t2:~$ sudo groupadd -g 765 mcastudents
```

Sudo usermod -G : Add user to group

```
mca@t2:~$ sudo usermod -G mcastudents keerthi  
mca@t2:~$ id keerthi
```

id username : Used to find user group name and numeric id

```
mca@t2:~/Philip$ id Philip  
uid=1004(Philip) gid=1005(Philip) groups=1005(Philip),1007(mcastudent)  
mca@t2:~/Philip$
```

To display all the groups

```
mca@t2:~$ compgen -g  
root  
daemon  
bin  
sys  
adm  
tty  
disk  
lp  
mail
```

chmod : used to change the access permission of the file and directories.

It stands for change mod

Read – r

Write – w

Execute – x

Denying the permission

```
mca@t2:~$ chmod -wx file.txt  
mca@t2:~$ cat >> file.txt  
bash: file.txt: Permission denied  
mca@t2:~$
```

Allowing the permissions

```
mca@t2:~$ chmod +rwx file.txt
mca@t2:~$ cat >> file.txt
added contents
^Z
[2]+  Stopped                  cat >> file.txt
```

Chown : Used to change the file ownership or directory ownership for a user or group
And chown stands for change owner

```
mca@t2:~$ chmod +rwx file.txt
mca@t2:~$ sudo chown keerthi file.txt
[sudo] password for mca:
mca@t2:~$ ls
ansible Desktop Documents Downloads file1.txt file.txt Music Pictures Public Templates Videos
mca@t2:~$ chmod +rwx file.txt
chmod: changing permissions of 'file.txt': Operation not permitted
mca@t2:~$ ls -l file.txt
-rwxrwxr-x 1 keerthi mca 34 Mar 20 11:58 file.txt
mca@t2:~$
```

Delete user

```
mca@t2:~$ sudo userdel keerthi
[sudo] password for mca:
mca@t2:~$ sudo userdel keerthi
userdel: user 'keerthi' does not exist
```

Delete group

```
mca@t2:~$ sudo groupdel mcastudents
mca@t2:~$ sudo groupdel mcastudents
groupdel: group 'mcastudents' does not exist
mca@t2:~$
```

Result

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

