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SECTION : SE 5-2

LAB TASK : 04

1. Create a blank text file on your home directory with your name

Ans :

A screenshot of a Linux terminal window. The title bar shows "Activities" and "Terminal". The terminal prompt is "haseeb55859@UbuntuOS:". The user has entered three commands: "cd ~", "touch Haseeb.txt", and a blank line. The terminal output shows the prompt changing to "~\$" after each command. On the left side of the terminal window, there are icons for the Ubuntu Dash, Firefox, and a file manager.

2. Make a directory with name student

Ans :

```
haseeb55859@UbuntuOS:~$ touch Haseeb.txt
haseeb55859@UbuntuOS:~$ mkdir student
haseeb55859@UbuntuOS:~$
```

3. Change the directory to student and copy your text file in this directory

Ans :

```
haseeb55859@UbuntuOS:~$ cd student
haseeb55859@UbuntuOS:~/student$ cp ~/Haseeb.txt .
```

4. Assign no permission to anyone (use numeric method for permission

Ans :

```
haseeb55859@UbuntuOS:~/student$ chmod 000 Haseeb.txt
haseeb55859@UbuntuOS:~/student$
```

5. Verify that above task has done successfully

Ans :

```
haseeb55859@UbuntuOS:~/student$ ls -l Haseeb.txt
----- 1 haseeb55859 haseeb55859 0 Sep 16 09:05 Haseeb.txt
haseeb55859@UbuntuOS:~/student$
```

6. Now try to write in this file. If error occurs, state why

Ans :

```
haseeb55859@UbuntuOS:~/student$ echo "Test" > Haseeb.txt
bash: Haseeb.txt: Permission denied
haseeb55859@UbuntuOS:~/student$
```

7. Assign permission of write only to user (do it twice by using both symbolic and numeric methods).

Ans :

```
bash: Haseeb.txt: Permission denied
haseeb55859@UbuntuOS:~/student$ chmod u=w Haseeb.txt
haseeb55859@UbuntuOS:~/student$ chmod 200 Haseeb.txt
haseeb55859@UbuntuOS:~/student$
```

8. Verify that above task has done successfully

Ans :

```
haseeb55859@UbuntuOS:~/student$ ls -l Haseeb.txt
-rw----- 1 haseeb55859 haseeb55859 0 Sep 16 09:05 Haseeb.txt
haseeb55859@UbuntuOS:~/student$
```

9. Write your introduction in 5 to 7 lines in .txt file

Ans :

```
haseeb55859@UbuntuOS:~/student$ echo -e "My name is Haseeb.\nI am a student of S
E.\nI enjoy language Python." > Haseeb.txt
haseeb55859@UbuntuOS:~/student$
```

10. Display contents of the file. If error occurs, state why

Ans :

```
cat: ./Haseeb.txt: No such file or directory
haseeb55859@UbuntuOS:~/student$ cat Haseeb.txt
cat: Haseeb.txt: Permission denied
```

11. Assign permission of read only to user

Ans :

```
haseeb55859@Ubuntu05:~/student$ chmod u=r Haseeb.txt
haseeb55859@Ubuntu05:~/student$ chmod 400 Haseeb.txt
```

12. Verify that above task has done successfully

Ans :

```
haseeb55859@Ubuntu05:~/student$ ls -l Haseeb.txt
-r----- 1 haseeb55859 haseeb55859 66 Sep 16 09:30 Haseeb.txt
```

13. Display contents of the file

Ans :

```
haseeb55859@Ubuntu05:~/student$ cat Haseeb.txt
My name is Haseeb.
I am a student of SE.
I enjoy language Python.
```

14. Assign permissions of read and execute only to user

Ans :

```
haseeb55859@Ubuntu05:~/student$ chmod u=rx Haseeb.txt
haseeb55859@Ubuntu05:~/student$ chmod 500 Haseeb.txt
```

15. Verify that above task has done successfully

Ans :

```
haseeb55859@Ubuntu05:~/student$ ls -l Haseeb.txt
-r-x----- 1 haseeb55859 haseeb55859 66 Sep 16 09:30 Haseeb.txt
haseeb55859@Ubuntu05:~/student$
```

16. Assign permissions of read and write only to user

Ans :

```
haseeb55859@Ubuntu05:~/student$ chmod u=rw Haseeb.txt
haseeb55859@Ubuntu05:~/student$ chmod 600 Haseeb.txt
```

17. Verify that above task has done successfully

Ans :

```
haseeb55859@Ubuntu05:~/student$ ls -l Haseeb.txt
-rw----- 1 haseeb55859 haseeb55859 66 Sep 16 09:30 Haseeb.txt
```

18. Assign all permissions to user

Ans :

```
haseeb55859@Ubuntu05:~/student$ ls -l Haseeb.txt
-rw----- 1 haseeb55859 haseeb55859 66 Sep 16 09:30 Haseeb.txt
haseeb55859@Ubuntu05:~/student$ chmod u=rwx Haseeb.txt
haseeb55859@Ubuntu05:~/student$ chmod 700 Haseeb.txt
haseeb55859@Ubuntu05:~/student$
```

19. Verify that above task has done successfully

Ans :

```
haseeb55859@Ubuntu05:~/student$ ls -l Haseeb.txt
-rwx----- 1 haseeb55859 haseeb55859 66 Sep 16 09:30 Haseeb.txt
```

20. Assign permission of read and execute only to group

Ans :

```
haseeb55859@Ubuntu05:~/student$ chmod g=rx Haseeb.txt
haseeb55859@Ubuntu05:~/student$ chmod 750 Haseeb.txt
haseeb55859@Ubuntu05:~/student$
```

21. Verify that above task has done successfully

Ans :

```
haseeb55859@Ubuntu05:~/student$ ls -l Haseeb.txt
-rwxr-x--- 1 haseeb55859 haseeb55859 66 Sep 16 09:30 Haseeb.txt
haseeb55859@Ubuntu05:~/student$
```

22. Assign all permissions to all users

Ans :

```
haseeb55859@Ubuntu0S:~/student$ chmod a=rwx Haseeb.txt
haseeb55859@Ubuntu0S:~/student$ chmod 777 Haseeb.txt
haseeb55859@Ubuntu0S:~/student$
```

23. Verify that above task has done successfully

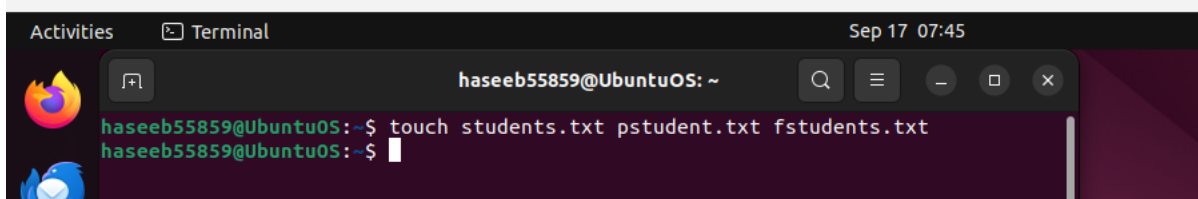
Ans :

```
haseeb55859@Ubuntu0S:~/student$ ls -l Haseeb.txt
-rwxrwxrwx 1 haseeb55859 haseeb55859 66 Sep 16 09:30 Haseeb.txt
```

2. Show Simulation results after performing the following tasks by using suitable commands in Linux. Also show command/commands used for specific task.

1. Create 3 empty text files and name them as students.txt, pstudent.txt and fstudents.txt.

Ans :



The screenshot shows a terminal window titled 'Terminal' with the date 'Sep 17 07:45'. The user 'haseeb55859@Ubuntu0S: ~' is at the prompt. The command 'touch students.txt pstudent.txt fstudents.txt' has been entered and executed, creating three empty text files.

2. Assign permissions to read only permission to the user (do it twice by using both symbolic and numeric methods)

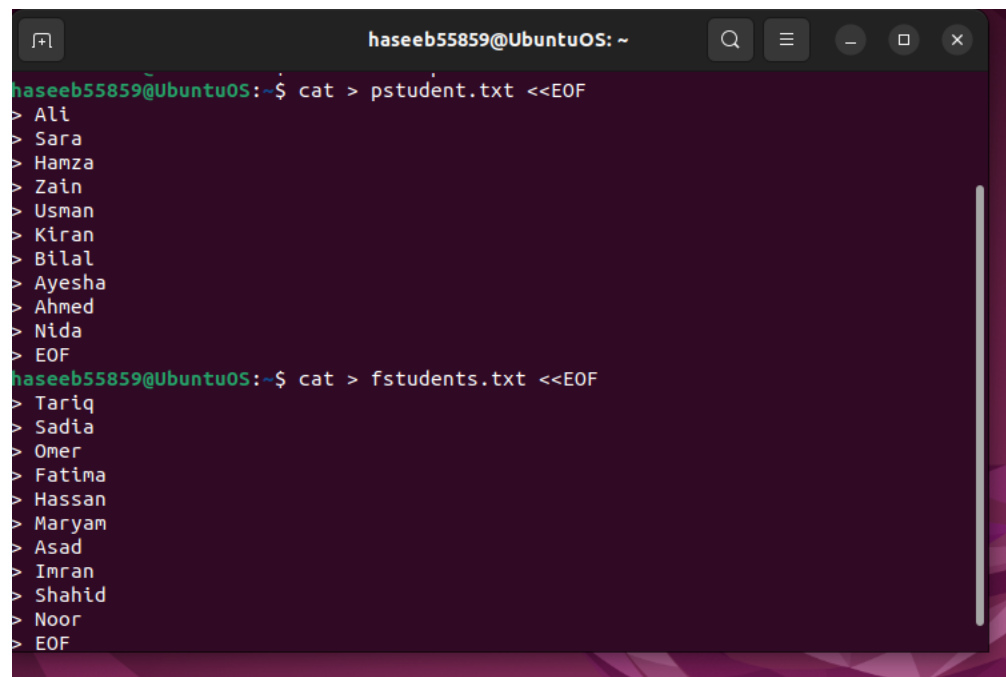
Ans :

```
haseeb55859@Ubuntu0S:~$ touch students.txt pstudent.txt fstudents.txt
haseeb55859@Ubuntu0S:~$ chmod u=r students.txt pstudent.txt fstudents.txt
haseeb55859@Ubuntu0S:~$ chmod 400 students.txt pstudent.txt fstudents.txt
haseeb55859@Ubuntu0S:~$
```

3. Enter at least 10 different students' names in pstudent.txt and fstudent.txt. If any error appears, debug that error for user only.

Ans :

```
haseeb55859@UbuntuOS:~$ echo "Ali" >> pstudent.txt
bash: pstudent.txt: Permission denied
```

A terminal window titled 'haseeb55859@UbuntuOS: ~' with search, menu, and window control icons. It shows the user creating two files: pstudent.txt and fstudent.txt. The first file, pstudent.txt, is created using 'cat > pstudent.txt <<EOF' and contains 10 names: Ali, Sara, Hamza, Zain, Usman, Kiran, Bilal, Ayesha, Ahmed, and Nida. The second file, fstudent.txt, is created using 'cat > fstudent.txt <<EOF' and contains 10 names: Tariq, Sadia, Omer, Fatima, Hassan, Maryam, Asad, Imran, Shahid, and Noor. Both files end with EOF.

```
haseeb55859@UbuntuOS:~$ cat > pstudent.txt <<EOF
> Ali
> Sara
> Hamza
> Zain
> Usman
> Kiran
> Bilal
> Ayesha
> Ahmed
> Nida
> EOF
haseeb55859@UbuntuOS:~$ cat > fstudent.txt <<EOF
> Tariq
> Sadia
> Omer
> Fatima
> Hassan
> Maryam
> Asad
> Imran
> Shahid
> Noor
> EOF
```

4. Create directory RIPHAAH and give read-only permission to user and group

Ans :

```
haseeb55859@UbuntuOS:~$ mkdir RIPHAAH
haseeb55859@UbuntuOS:~$ chmod u=r,g=r RIPHAAH
haseeb55859@UbuntuOS:~$ chmod 400 RIPHAAH
haseeb55859@UbuntuOS:~$
```

5. Copy all files to RIPHAAH

Ans:

```
haseeb55859@Ubuntu05:~$ cp students.txt pstudent.txt fstudents.txt RIPHAH/  
cp: cannot stat 'RIPHAH/students.txt': Permission denied  
cp: cannot stat 'RIPHAH/pstudent.txt': Permission denied  
cp: cannot stat 'RIPHAH/fstudents.txt': Permission denied
```

```
haseeb55859@Ubuntu05:~$ chmod u=rwx,g=rwx RIPHAH  
haseeb55859@Ubuntu05:~$ cp students.txt pstudent.txt fstudents.txt RIPHAH/  
haseeb55859@Ubuntu05:~$
```

6. Append first 5 sorted names from pstudent.txt and last 5 from fstudents.txt to students.txt

Ans :

```
haseeb55859@Ubuntu05:~$ sort pstudent.txt | head -5 >> students.txt  
haseeb55859@Ubuntu05:~$ sort fstudents.txt | tail -5 >> students.txt  
haseeb55859@Ubuntu05:~$
```

7. Show contents of sorted names from students.txt

Ans :

```
haseeb55859@Ubuntu05:~$ sort students.txt  
Ahmed  
Ahmed  
Ali  
Ali  
Ayesha  
Ayesha  
Bilal  
Bilal  
Hamza  
Hamza  
Noor  
Omer  
Sadia  
Shahid  
Tariq  
haseeb55859@Ubuntu05:~$
```

8. Change permissions

Ans :


```
haseeb55859@Ubuntu05:~$ chmod u=r students.txt
haseeb55859@Ubuntu05:~$ chmod u=rw pstudent.txt fstudents.txt
haseeb55859@Ubuntu05:~$
```

```
haseeb55859@Ubuntu05:~$ chmod 400 students.txt
haseeb55859@Ubuntu05:~$ chmod 600 pstudent.txt fstudents.txt
```

9. Try to append a student name to student.txt

Ans :

```
haseeb55859@Ubuntu05:~$ echo "NewStudent" >> students.txt
bash: students.txt: Permission denied
haseeb55859@Ubuntu05:~$
```

```
haseeb55859@Ubuntu05:~$ chmod u=rw students.txt
haseeb55859@Ubuntu05:~$ echo "NewStudent" >> students.txt
haseeb55859@Ubuntu05:~$ chmod u=r students.txt
haseeb55859@Ubuntu05:~$
```

10 . Display contents of all files

Ans :

```
haseeb55859@Ubuntu05:~$ cat students.txt
Ahmed
Ali
Ayesha
Bilal
Hamza
Ahmed
Ali
Ayesha
Bilal
Hamza
Noor
Omer
Sadia
Shahid
Tariq
NewStudent
```

```
haseeb55859@Ubuntu05:~$ cat pstudent.txt
Ali
Sara
Hamza
Zain
Usman
Kiran
Bilal
Ayesha
Ahmed
Nida
```

```
haseeb55859@Ubuntu05:~$ cat fstudents.txt
Tariq
Sadia
Omer
Fatima
Hassan
Maryam
Asad
Imran
Shahid
Noor
```

11. Show permissions and contents of RIPHAH

Ans :

```
haseeb55859@Ubuntu05:~$ ls -l RIPHAH
total 8
-rw----- 1 haseeb55859 haseeb55859 62 Sep 17 08:01 fstudents.txt
-rw----- 1 haseeb55859 haseeb55859 56 Sep 17 08:01 pstudent.txt
-r----- 1 haseeb55859 haseeb55859  0 Sep 17 08:01 students.txt
haseeb55859@Ubuntu05:~$ cat RIPHAH/students.txt
haseeb55859@Ubuntu05:~$ cat RIPHAH/pstudent.txt
Ali
Sara
Hamza
Zain
Usman
Kiran
Bilal
Ayesha
Ahmed
Nida
haseeb55859@Ubuntu05:~$ cat RIPHAH/fstudents.txt
Tariq
Sadia
Omer
Fatima
Hassan
Maryam
Asad
Imran
Shahid
Noor
```