

Assignment 0: Practice for Shell commands.

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1. ls command : To list down the items in the folder

```
root@localhost:~/Documents/OS_labs
File Edit View Search Terminal Help
[root@localhost OS_labs]# ls
db.csv  db_ops.sh  greet.sh  hello.sh  mark1  mark2
[root@localhost OS_labs]#
[root@localhost OS_labs]#
```

2. mkdir : Create Folder / Directory

```
File Edit View Search Terminal Help
[root@localhost OS_labs]#
[root@localhost OS_labs]#
[root@localhost OS_labs]# mkdir mark0
[root@localhost OS_labs]#
[root@localhost OS_labs]# ls
db.csv  db_ops.sh  greet.sh  hello.sh  mark0  mark1  mark2
[root@localhost OS_labs]#
```

3. cd : Change Directory

```
File Edit View Search Terminal Help
[root@localhost OS_labs]#
[root@localhost OS_labs]# cd mark0/
[root@localhost mark0]# ls
[root@localhost mark0]#
```

4. Create Empty file

```
File Edit View Search Terminal Help
[root@localhost mark0]#
[root@localhost mark0]# touch data.txt
[root@localhost mark0]# ls
data.txt
[root@localhost mark0]#
```

5. Create file using gedit text editor and add some text.

```
File Edit View Search Terminal Help
[root@localhost mark0]#
[root@localhost mark0]# touch data.txt
[root@localhost mark0]# ls
data.txt
[root@localhost mark0]# gedit learn.txt
```

6. View content of that file using cat command.

```
File Edit View Search Terminal Help
[root@localhost mark0]# ls
data.txt  learn.txt
[root@localhost mark0]#
[root@localhost mark0]# cat learn.txt
Hii This is Chaitanya. I am performing assignment number 0.
[root@localhost mark0]#
```

7. Search some word from that file using grep command.

```
File Edit View Search Terminal Help
[root@localhost mark0]# ls
data.txt  learn.txt
[root@localhost mark0]#
[root@localhost mark0]# cat learn.txt | grep Chaitanya
Hii This is Chaitanya. I am performing assignment number 0.
[root@localhost mark0]#
```

8. Append some record to the same file

```
File Edit View Search Terminal Help
[root@localhost mark0]# ls
data.txt  learn.txt
[root@localhost mark0]#
[root@localhost mark0]# echo "Hello World " >> learn.txt
[root@localhost mark0]# cat learn.txt
Hii This is Chaitanya. I am performing assignment number 0.
Hello World
[root@localhost mark0]#
```

9. Override some text to the file.

```
File Edit View Search Terminal Help
[root@localhost mark0]# cat learn.txt
Hii This is Chaitanya. I am performing assignment number 0.
Hello World
[root@localhost mark0]#
[root@localhost mark0]# echo "previous data will get vanishes if we use single a
ngle bracket" > learn.txt
[root@localhost mark0]#
[root@localhost mark0]#
[root@localhost mark0]# cat learn.txt
previous data will get vanishes if we use single angle bracket
[root@localhost mark0]#
```

10. Copy file into some other location

```
File Edit View Search Terminal Help
[root@localhost mark0]# ls
data.txt  learn.txt
[root@localhost mark0]#
[root@localhost mark0]# cp learn.txt learn2.txt
[root@localhost mark0]# ls
data.txt  learn2.txt  learn.txt
[root@localhost mark0]#
[root@localhost mark0]# cat learn2.txt
previous data will get vanishes if we use single angle bracket
[root@localhost mark0]# █
```

11. Rename file / move file.

```
File Edit View Search Terminal Help
[root@localhost mark0]# ls
data.txt  learn2.txt  learn.txt
[root@localhost mark0]#
[root@localhost mark0]# mv learn.txt learn-55.txt
[root@localhost mark0]# ls
data.txt  learn2.txt  learn-55.txt
[root@localhost mark0]# cat learn-55.txt
previous data will get vanishes if we use single angle bracket
[root@localhost mark0]# █
```

12. Remove file

```
File Edit View Search Terminal Help
[root@localhost mark0]# ls
data.txt  learn2.txt  learn-55.txt
[root@localhost mark0]#
[root@localhost mark0]# rm data.txt
rm: remove regular empty file 'data.txt'? y
[root@localhost mark0]#
```

13. Delete multiple (all) files:

```
[root@localhost mark0]# ls
learn2.txt  learn-55.txt
[root@localhost mark0]#
[root@localhost mark0]# rm * -f
[root@localhost mark0]# ls
[root@localhost mark0]#
```

14. Delete directory

```
File Edit View Search Terminal Help
[root@localhost OS_labs]# ls
db.csv  db_ops.sh  greet.sh  hello.sh  mark0  mark1  mark2
[root@localhost OS_labs]#
[root@localhost OS_labs]# rm -rf mark0
[root@localhost OS_labs]# ls
db.csv  db_ops.sh  greet.sh  hello.sh  mark1  mark2
[root@localhost OS_labs]#
```

15. Create multiple files at the same time

```
[root@localhost mark0]# touch a{1..20}.txt
[root@localhost mark0]# ls
a10.txt  a13.txt  a16.txt  a19.txt  a2.txt  a5.txt
a11.txt  a14.txt  a17.txt  a1.txt   a3.txt  a6.txt
a12.txt  a15.txt  a18.txt  a20.txt  a4.txt  a7.txt
[root@localhost mark0]#
```

16. Create one file and print Reverse output for grep command:

```
File Edit View Search Terminal Help
[root@localhost ~]# cat names.txt
chaitanya
pranav
raj
jack
pratham
yash
chaitanya
pranav
pranav
jack
chaitanya
eric
[root@localhost ~]#
```

Reverse output of grep command: (if I searched for word chaitanya it will give me all the string excluding chaitanya):

```
File Edit View Search Terminal Help
[root@localhost ~]# cat names.txt | grep -v chaitanya names.txt
pranav
raj
jack
pratham
yash
pranav
pranav
jack
eric
[root@localhost ~]#
```

17. Count number of words in above file:

```
File Edit View Search Terminal Help
[root@localhost ~]# cat names.txt | wc -w
12
[root@localhost ~]#
```

18. Print all the processes running on your system:

```
[root@localhost ~]# ps -aux
USER          PID %CPU %MEM    VSZ   RSS TTY      STAT START   TIME COMMAND
root           1  0.6  0.4 244692 14196 ?        Ss   10:28   0:05 /usr/lib/syste
root           2  0.0  0.0     0     0 ?        S    10:28   0:00 [kthreadd]
root           3  0.0  0.0     0     0 ?        I<   10:28   0:00 [rcu_gp]
root           4  0.0  0.0     0     0 ?        I<   10:28   0:00 [rcu_par_gp]
root           5  0.1  0.0     0     0 ?        I    10:28   0:01 [kworker/0:0-a
root           6  0.0  0.0     0     0 ?        I<   10:28   0:00 [kworker/0:0H-
root           8  0.0  0.0     0     0 ?        I<   10:28   0:00 [mm_percpu_wq]
root           9  0.0  0.0     0     0 ?        S    10:28   0:00 [ksoftirqd/0]
root          10  0.0  0.0     0     0 ?        I    10:28   0:00 [rcu_sched]
root          11  0.0  0.0     0     0 ?        S    10:28   0:00 [migration/0]
```

19. Declare an array and print it using for loop:


```
root@localhost:~  
File Edit View Search Terminal Help  
[root@localhost ~]# arr=(a b c d e f g h)  
[root@localhost ~]# for i in ${arr[@]}; do echo $i; done;  
a  
b  
c  
d  
e  
f  
g  
h  
[root@localhost ~]#
```

20. Print “OK” infinite time using while loop with the delay of 2 seconds:

```
File Edit View Search Terminal Help  
[root@localhost ~]# while true  
> do  
> echo "OK"  
> sleep 2  
> done  
OK  
OK  
OK  
OK  
OK  
OK  
OK  
OK  
OK
```