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21BAI1217  
OPERATING SYSTEMS LAB 1

1. pwd

```
ex2@ilab-HP-Desktop-Pro-G2:~$ pwd  
/home/ex2
```

2. ls

```
ex2@ilab-HP-Desktop-Pro-G2:~$ ls  
21bce1916_q1  Documents  inssort.cpp      LabFat.Rmd  pranav  
21bce1916_q2  Downloads  kim              main.c      Public  
boot.asm      g          kol             main.o      R  
boot.bin      hello.txt  Lab_Fat20BCE1419.pdf  Music      Templates  
Desktop       hi.txt    LabFat.html     Pictures    Videos
```

3. cd

cd Downloads

```
ex2@ilab-HP-Desktop-Pro-G2:~$ cd Downloads  
ex2@ilab-HP-Desktop-Pro-G2:~/Downloads$
```

4. cd ..

```
ex2@ilab-HP-Desktop-Pro-G2:~$ cd  
ex2@ilab-HP-Desktop-Pro-G2:~$ cd Downloads  
ex2@ilab-HP-Desktop-Pro-G2:~/Downloads$ cd ..  
ex2@ilab-HP-Desktop-Pro-G2:~$
```

5. mkdir

```
ex2@ilab-HP-Desktop-Pro-G2:~$ mkdir 21bail217_folder  
ex2@ilab-HP-Desktop-Pro-G2:~$ ls  
21bail217_folder  Documents  kim              main.o      Templates  
21bce1916_q1     Downloads  kol             Music      Videos  
21bce1916_q2     g          Lab_Fat20BCE1419.pdf  Pictures  
boot.asm         hello.txt  LabFat.html     pranav  
boot.bin         hi.txt    LabFat.Rmd      Public  
Desktop          inssort.cpp  main.c          R
```

6. rmdir

```
ex2@ilab-HP-Desktop-Pro-G2:~$ rmdir 21bail217_folder  
ex2@ilab-HP-Desktop-Pro-G2:~$ ls  
21bce1916_q1  Documents  inssort.cpp      LabFat.Rmd  pranav  
21bce1916_q2  Downloads  kim              main.c      Public  
boot.asm      g          kol             main.o      R  
boot.bin      hello.txt  Lab_Fat20BCE1419.pdf  Music      Templates  
Desktop       hi.txt    LabFat.html     Pictures    Videos
```

7. cat filename.txt

```
ex2@ilab-HP-Desktop-Pro-G2:~$ cat hello.txt
This is OPerating systems lab
I am Mainak
21BAI1217
```

8. cp filename.txt filename2.txt

```
ex2@ilab-HP-Desktop-Pro-G2:~$ cp hello.txt copy.txt
ex2@ilab-HP-Desktop-Pro-G2:~$ ls
21bce1916_q1 boot.asm copy.txt Documents g hi.txt kim Lab_Fa
t20BCE1419.pdf LabFat.Rmd main.o Pictures Public Templates
21bce1916_q2 boot.bin Desktop Downloads hello.txt inssort.cpp kol LabFat
.html main.c Music pranav R Videos
ex2@ilab-HP-Desktop-Pro-G2:~$ cat copy.txt
This is OPerating systems lab
I am Mainak
21BAI1217
ex2@ilab-HP-Desktop-Pro-G2:~$
```

9. mv filename destination\_folder

```
ex2@ilab-HP-Desktop-Pro-G2:~$ mv copy.txt Desktop
ex2@ilab-HP-Desktop-Pro-G2:~$ cd Desktop
ex2@ilab-HP-Desktop-Pro-G2:~/Desktop$ ls
21bce1897lab1.c++ copy.txt Don1 one.c two.c
a.out don Insertion sorting.xlsx rand.py
ex2@ilab-HP-Desktop-Pro-G2:~/Desktop$
```

10. ln -s file.txt file\_link.txt

```
ex2@ilab-HP-Desktop-Pro-G2:~$ ln -s hello.txt hello_link.txt
ex2@ilab-HP-Desktop-Pro-G2:~$ ls
21bce1916_q1 Downloads kim main.o Templates
21bce1916_q2 g kol Music Videos
boot.asm hello_link.txt Lab_Fat20BCE1419.pdf Pictures
boot.bin hello.txt LabFat.html pranav
Desktop hi.txt LabFat.Rmd Public
Documents inssort.cpp main.c R
```

11. rm filename

```
ex2@ilab-HP-Desktop-Pro-G2:~$ rm hi.txt
ex2@ilab-HP-Desktop-Pro-G2:~$ ls
21bce1916_q1 boot.asm Desktop Downloads hello_link.txt inssort.cpp kol LabFat.html main.c Music pranav R Videos
21bce1916_q2 boot.bin Documents g hello.txt kim Lab_Fat20BCE1419.pdf LabFat.Rmd main.o Pictures Public Templates
```

12. who

```
ex2@ilab-HP-Desktop-Pro-G2:~$ who
ex2 tty7 2023-04-28 09:54 (:0)
```

13. whoami

```
ex2@ilab-HP-Desktop-Pro-G2:~$ whoami
ex2
```

14. date

```
ex2@ilab-HP-Desktop-Pro-G2:~$ date
Friday 28 April 2023 10:23:48 AM IST
```

15. echo

```
ex2@ilab-HP-Desktop-Pro-G2:~$ date
Friday 28 April 2023 10:23:48 AM IST
```

16. head filename.txt

```
ex2@ilab-HP-Desktop-Pro-G2:~$ head hello.txt
This is OPerating systems lab
I am Mainak
21BAI1217
```

17.tail filename.txt

```
ex2@ilab-HP-Desktop-Pro-G2:~$ tail hello.txt
This is OPerating systems lab
I am Mainak
21BAI1217
```

18. wc

```
ex2@ilab-HP-Desktop-Pro-G2:~$ wc hello.txt
 3  9 52 hello.txt
```

19. find

```
ex2@ilab-HP-Desktop-Pro-G2:~$ find ./Desktop -name copy.txt
./Desktop/copy.txt
```

20. chmod

```
ex2@ilab-HP-Desktop-Pro-G2:~$ chmod u=rwx,g=rx,o=r hello.txt
ex2@ilab-HP-Desktop-Pro-G2:~$ ls -l hello.txt
-rwxr-xr-- 1 ex2 ex2 52 Apr 28 10:10 hello.txt
```

21. exit

Terminal Closed

22. clear

```
ex2@ilab-HP-Desktop-Pro-G2:~$ echo "hello"
hello
ex2@ilab-HP-Desktop-Pro-G2:~$ clear
```

```
ex2@ilab-HP-Desktop-Pro-G2:~$
```

23. Ctrl + Z

```
ex2@ilab-HP-Desktop-Pro-G2:~$ head
^Z
[1]+  Stopped                  head
ex2@ilab-HP-Desktop-Pro-G2:~$
```

## 24. man command

```
ex2@ilab-HP-Desktop-Pro-G2: ~
File Edit View Search Terminal Help
CHMOD(1)                                User Commands                                CHMOD(1)

NAME
    chmod - change file mode bits

SYNOPSIS
    chmod [OPTION]... MODE[,MODE]... FILE...
    chmod [OPTION]... OCTAL-MODE FILE...
    chmod [OPTION]... --reference=RFILE FILE...

DESCRIPTION
    This manual page documents the GNU version of chmod. chmod changes the
    file mode bits of each given file according to mode, which can be ei-
    ther a symbolic representation of changes to make, or an octal number
    representing the bit pattern for the new mode bits.

    The format of a symbolic mode is [ugoa...][[-+=[perms...]]...], where
    perms is either zero or more letters from the set rwXst, or a single
    letter from the set ugo. Multiple symbolic modes can be given, sepa-
    rated by commas.

    A combination of the letters ugoa controls which users' access to the
    file will be changed: the user who owns it (u), other users in the
    Manual page chmod(1) line 1 (press h for help or q to quit)
```

## 25. Ctrl + C

```
ex2@ilab-HP-Desktop-Pro-G2:~$ head
^C
ex2@ilab-HP-Desktop-Pro-G2:~$
```

## 26. history

```
ex2@ilab-HP-Desktop-Pro-G2:~$ history
1  ls
2  cd Do
3  cd Documents/
4  l
5  ls
6  mkdir 2lbrs1141_fat
7  cd 2lbrs1141_fat/
8  ls
9  clear
10 gedit q1.sh
11 bash q1.sh
12 gedit q1.sh
13 bash q1.sh
14 gedit q1.sh
15 code q1.sh
16 code q2.c
17 bash --help
18 clear
19 bash q1.sh
20 clear
21 bash q1.sh
22 bash q1.sh 32
23 bash q1.sh 32 3 2 5 2 57 34 64 43 46
24 clear
25 bash q1.sh 32 3 2 5 2 57 34 64 43 46
26 g++ pthread.h q2.c
27 g++ pthread q2.c
28 g++ q2.c
29 bash q1.sh 32 3 2 5 2 57 34 64 43 46
30 gpp q2.c
31 g++ pthread q2.c
32 g++ -o pthread q2.c
33 bash q1.sh 32 3 2 5 2 57 34 64 43 46
34 clear
```

27. more FILE.txt

```
ex2@ilab-HP-Desktop-Pro-G2:~$ more hello.txt
This is OPerating systems lab
I am Mainak
21BAI1217
```

28. less FILE.txt



The screenshot shows a terminal window titled "ex2@ilab-HP-Desktop-Pro-G2: ~". The window has a menu bar with "File", "Edit", "View", "Search", "Terminal", and "Help". The terminal content displays the output of the 'less' command for the file 'hello.txt', showing the same three lines as in the previous block: "This is OPerating systems lab", "I am Mainak", and "21BAI1217". At the bottom of the terminal, the text "hello.txt (END)" is visible, indicating the end of the file.