CSE 321 Operating Systems
Lab Assignment 1

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ID: 20301027
Section: 05

Task 01 (a):

```
> mkdir assignment1
> cd assignment1
> touch 20301027_1.txt 20301027_2.txt 20301027_3.txt
20301027_4.txt
> mkdir FathinIshrak1 FathinIshrak2
> mv 20301027_1.txt 20301027_2.txt 20301027_3.txt
FathinIshrak1/
> cp FathinIshrak1/20301027_1.txt
FathinIshrak1/20301027_2.txt FathinIshrak2/
> mkdir FathinIshrak3
> cp -r FathinIshrak1/ FathinIshrak3/
> cd FathinIshrak3
> ls -l
> chmod 755 *
> ls -l
> cd ..
> ls
> sudo mv FathinIshrak3 /
> rm -r *
```
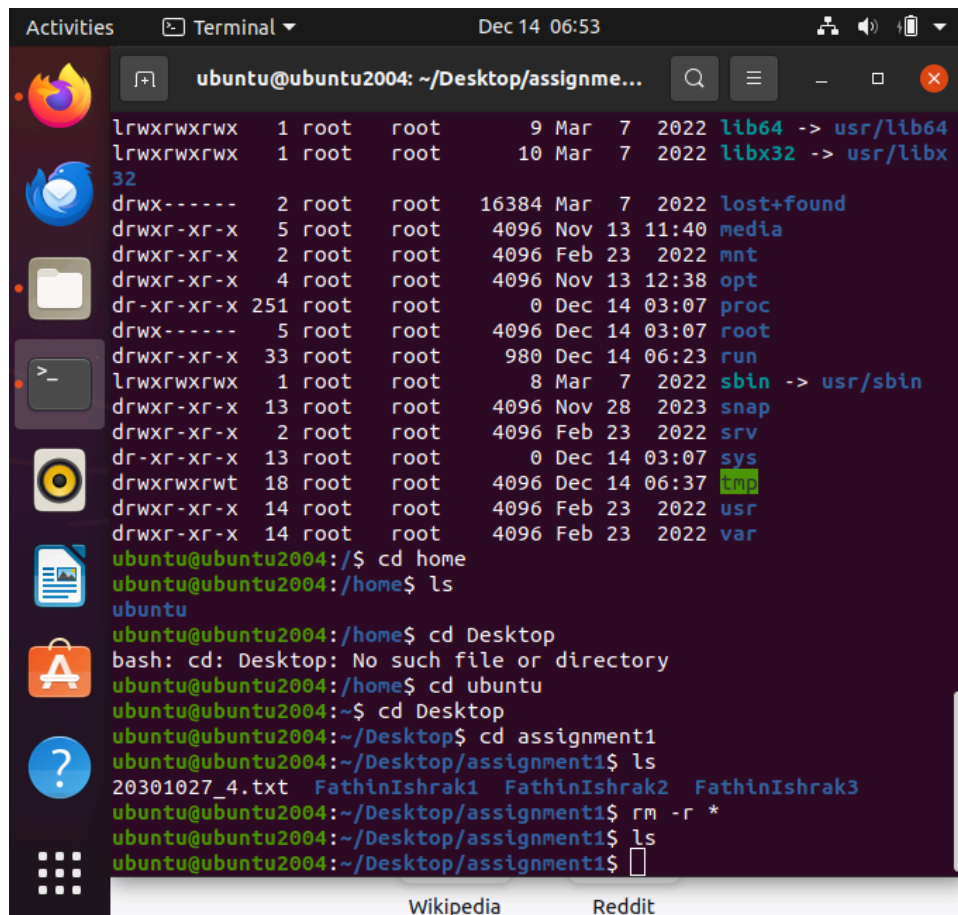
⊞   **ubuntu@ubuntu2004: ~/Desktop/assignme...**   Q ≡ — ▢ ✕

```
ubuntu@ubuntu2004:~/Desktop$ mkdir assignment1
ubuntu@ubuntu2004:~/Desktop$ cd assignment1
ubuntu@ubuntu2004:~/Desktop/assignment1$ touch 20301027_1.txt 2030
1027_2.txt 20301027_3.txt 20301027_4.txt
ubuntu@ubuntu2004:~/Desktop/assignment1$ mkdir FathinIshrak1 Fathi
nIshrak2
ubuntu@ubuntu2004:~/Desktop/assignment1$ mv 20301027_1.txt 2030102
7_2.txt 20301027_3.txt FathinIshrak1/
ubuntu@ubuntu2004:~/Desktop/assignment1$ cp FathinIshrak1/20301027
_1.txt
cp: missing destination file operand after 'FathinIshrak1/20301027
_1.txt'
Try 'cp --help' for more information.
ubuntu@ubuntu2004:~/Desktop/assignment1$ cp FathinIshrak1/20301027
_1.txt FathinIshrak1/20301027_2.txt FathinIshrak2/
ubuntu@ubuntu2004:~/Desktop/assignment1$ mkdir FathinIshrak3
ubuntu@ubuntu2004:~/Desktop/assignment1$ cp -r FathinIshrak1/ Fath
inIshrak3/
ubuntu@ubuntu2004:~/Desktop/assignment1$ cd FathinIshrak3
ubuntu@ubuntu2004:~/Desktop/assignment1/FathinIshrak3$ ls -l
total 4
drwxrwxr-x 2 ubuntu ubuntu 4096 Dec 14 06:41 FathinIshrak1
ubuntu@ubuntu2004:~/Desktop/assignment1/FathinIshrak3$ chmod 755 *
ubuntu@ubuntu2004:~/Desktop/assignment1/FathinIshrak3$ ls -l
total 4
drwxr-xr-x 2 ubuntu ubuntu 4096 Dec 14 06:41 FathinIshrak1
ubuntu@ubuntu2004:~/Desktop/assignment1/FathinIshrak3$ cd ..
ubuntu@ubuntu2004:~/Desktop/assignment1$ ls
20301027_4.txt  FathinIshrak1  FathinIshrak2  FathinIshrak3
ubuntu@ubuntu2004:~/Desktop/assignment1$ sudo mv FathinIshrak3 /
```

⊞   **ubuntu@ubuntu2004: ~/Desktop/assignme...**   Q ≡ — ▢ ✕

```
ubuntu@ubuntu2004:~/Desktop/assignment1$ sudo mv FathinIshrak3 /
mv: cannot move 'FathinIshrak3' to '/FathinIshrak3': Directory not
 empty
ubuntu@ubuntu2004:~/Desktop/assignment1$ cd ..
ubuntu@ubuntu2004:~/Desktop$ cd ..
ubuntu@ubuntu2004:~$ cd ..
ubuntu@ubuntu2004:/home$ ls
ubuntu
ubuntu@ubuntu2004:/home$ cd ..
ubuntu@ubuntu2004:/$ ls
bin     etc           lib       lost+found   proc   snap   usr
boot    FathinIshrak1 lib32     media        root   srv    var
cdrom   FathinIshrak3 lib64     mnt          run    sys
dev     home          libx32    opt          sbin   tmp
ubuntu@ubuntu2004:/$ rm -r FathinIshrak1
rm: cannot remove 'FathinIshrak1': Permission denied
ubuntu@ubuntu2004:/$ rm -r FathinIshrak3
rm: cannot remove 'FathinIshrak3': Permission denied
ubuntu@ubuntu2004:/$ ls -l
total 84
lrwxrwxrwx   1 root    root        7 Mar  7  2022 bin -> usr/bin
drwxr-xr-x   4 root    root     4096 Nov 13 12:39 boot
drwxrwxr-x   2 root    root     4096 Mar  7  2022 cdrom
drwxr-xr-x  20 root    root     4340 Dec 14 03:13 dev
drwxr-xr-x 140 root    root    12288 Nov 13 13:04 etc
drwxrwxr-x   2 ubuntu  ubuntu   4096 Dec 14 06:45 FathinIshrak1
drwxrwxr-x   2 ubuntu  ubuntu   4096 Dec 14 06:46 FathinIshrak3
drwxr-xr-x   3 root    root     4096 Mar  7  2022 home
lrwxrwxrwx   1 root    root        7 Mar  7  2022 lib -> usr/lib
lrwxrwxrwx   1 root    root        9 Mar  7  2022 lib32 -> usr/lib32
```

Wikipedia   Reddit

```
ubuntu@ubuntu2004: ~/Desktop/assignme...

lrwxrwxrwx   1 root     root        9 Mar  7  2022 lib32 -> usr/lib32
lrwxrwxrwx   1 root     root        9 Mar  7  2022 lib64 -> usr/lib64
lrwxrwxrwx   1 root     root       10 Mar  7  2022 libx32 -> usr/libx
32
drwx------   2 root     root    16384 Mar  7  2022 lost+found
drwxr-xr-x   5 root     root     4096 Nov 13 11:40 media
drwxr-xr-x   2 root     root     4096 Feb 23  2022 mnt
drwxr-xr-x   4 root     root     4096 Nov 13 12:38 opt
dr-xr-xr-x 251 root     root        0 Dec 14 03:07 proc
drwx------   5 root     root     4096 Dec 14 03:07 root
drwxr-xr-x  33 root     root      980 Dec 14 06:23 run
lrwxrwxrwx   1 root     root        8 Mar  7  2022 sbin -> usr/sbin
drwxr-xr-x  13 root     root     4096 Nov 28  2023 snap
drwxr-xr-x   2 root     root     4096 Feb 23  2022 srv
dr-xr-xr-x  13 root     root        0 Dec 14 03:07 sys
drwxrwxrwt  18 root     root     4096 Dec 14 06:37 tmp
drwxr-xr-x  14 root     root     4096 Feb 23  2022 usr
drwxr-xr-x  14 root     root     4096 Feb 23  2022 var
ubuntu@ubuntu2004:/$ chmod 777 FathinIshrak3
ubuntu@ubuntu2004:/$ rm -r FathinIshrak3
rm: cannot remove 'FathinIshrak3': Permission denied
ubuntu@ubuntu2004:/$ ls -l
total 84
lrwxrwxrwx   1 root     root        7 Mar  7  2022 bin -> usr/bin
drwxr-xr-x   4 root     root     4096 Nov 13 12:39 boot
drwxrwxr-x   2 root     root     4096 Mar  7  2022 cdrom
drwxr-xr-x  20 root     root     4340 Dec 14 03:13 dev
drwxr-xr-x 140 root     root    12288 Nov 13 13:04 etc
drwxrwxr-x   2 ubuntu   ubuntu   4096 Dec 14 06:45 FathinIshrak1
drwxrwxrwx   2 ubuntu   ubuntu   4096 Dec 14 06:46 FathinIshrak3
```

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```
ubuntu@ubuntu2004: ~/Desktop/assignme...

drwxrwxr-x   2 ubuntu   ubuntu   4096 Dec 14 06:45 FathinIshrak1
drwxrwxrwx   2 ubuntu   ubuntu   4096 Dec 14 06:46 FathinIshrak3
drwxr-xr-x   3 root     root     4096 Mar  7  2022 home
lrwxrwxrwx   1 root     root        7 Mar  7  2022 lib -> usr/lib
lrwxrwxrwx   1 root     root        9 Mar  7  2022 lib32 -> usr/lib32
lrwxrwxrwx   1 root     root        9 Mar  7  2022 lib64 -> usr/lib64
lrwxrwxrwx   1 root     root       10 Mar  7  2022 libx32 -> usr/libx
32
drwx------   2 root     root    16384 Mar  7  2022 lost+found
drwxr-xr-x   5 root     root     4096 Nov 13 11:40 media
drwxr-xr-x   2 root     root     4096 Feb 23  2022 mnt
drwxr-xr-x   4 root     root     4096 Nov 13 12:38 opt
dr-xr-xr-x 251 root     root        0 Dec 14 03:07 proc
drwx------   5 root     root     4096 Dec 14 03:07 root
drwxr-xr-x  33 root     root      980 Dec 14 06:23 run
lrwxrwxrwx   1 root     root        8 Mar  7  2022 sbin -> usr/sbin
drwxr-xr-x  13 root     root     4096 Nov 28  2023 snap
drwxr-xr-x   2 root     root     4096 Feb 23  2022 srv
dr-xr-xr-x  13 root     root        0 Dec 14 03:07 sys
drwxrwxrwt  18 root     root     4096 Dec 14 06:37 tmp
drwxr-xr-x  14 root     root     4096 Feb 23  2022 usr
drwxr-xr-x  14 root     root     4096 Feb 23  2022 var
ubuntu@ubuntu2004:/$ cd home
ubuntu@ubuntu2004:/home$ ls
ubuntu
ubuntu@ubuntu2004:/home$ cd Desktop
bash: cd: Desktop: No such file or directory
ubuntu@ubuntu2004:/home$ cd ubuntu
ubuntu@ubuntu2004:~$ cd Desktop
ubuntu@ubuntu2004:~/Desktop$ cd assignment1
ubuntu@ubuntu2004:~/Desktop/assignment1$ ls
```

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Task 01 (b):

```
> touch course.txt
> cat > course.txt
> cat course.txt
> grep -c "CSE" course.txt
```

ubuntu@ubuntu2004: ~/Desktop

```
ubuntu@ubuntu2004:~/Desktop$ touch course.txt
ubuntu@ubuntu2004:~/Desktop$ cat > course.txt
Course ID: CSE321
Course Name: Operation System
Section: 05
Faculty Initial: BDH
LAB/No LAB: LAB

Course ID: CSE341
Course Name: Microprocessor
Section: 03
Faculty Initial: RRH
LAB/No LAB: LAB

Course ID: CSE470
Course Name: Software Engineering
Section: 02
Faculty Initial: FZN
LAB/No LAB: No LAB

Course ID: CSE471
Course Name: System Analysis & Design
Section: 01
Faculty Initial: MIH
LAB/No LAB: LAB
ubuntu@ubuntu2004:~/Desktop$ cat course.txt
Course ID: CSE321
Course Name: Operation System
Section: 05
Faculty Initial: BDH
```
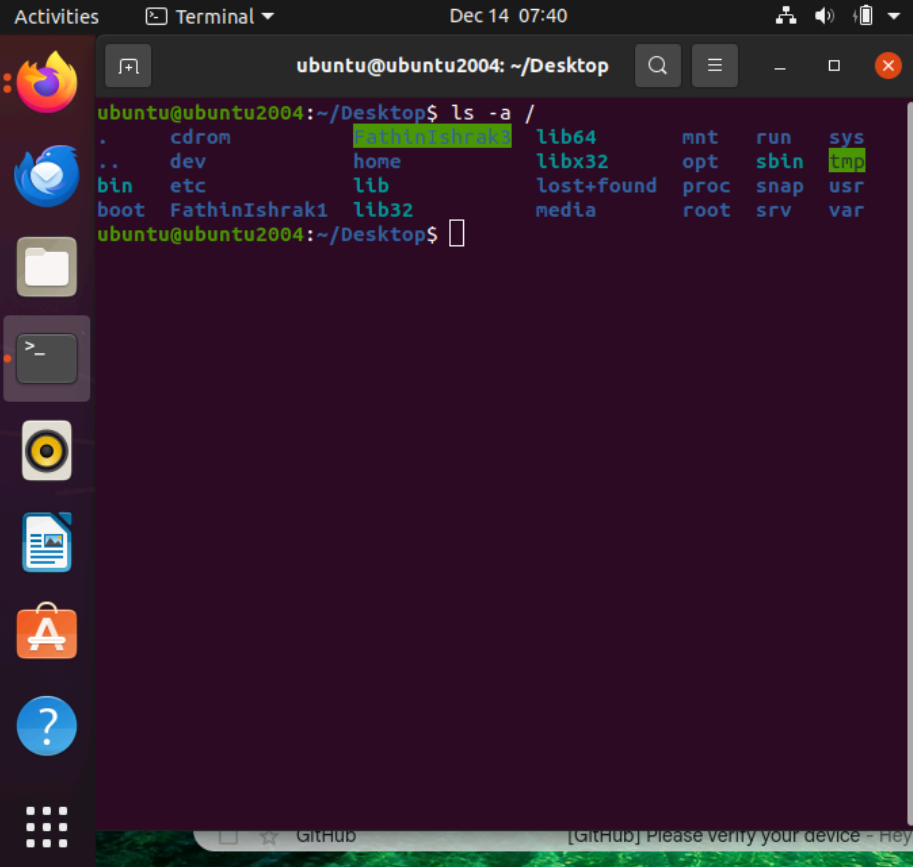
ubuntu@ubuntu2004: ~/Desktop

```
Course Name: System Analysis & Design
Section: 01
Faculty Initial: MIH
LAB/No LAB: LAB
ubuntu@ubuntu2004:~/Desktop$ cat course.txt
Course ID: CSE321
Course Name: Operation System
Section: 05
Faculty Initial: BDH
LAB/No LAB: LAB

Course ID: CSE341
Course Name: Microprocessor
Section: 03
Faculty Initial: RRH
LAB/No LAB: LAB

Course ID: CSE470
Course Name: Software Engineering
Section: 02
Faculty Initial: FZN
LAB/No LAB: No LAB

Course ID: CSE471
Course Name: System Analysis & Design
Section: 01
Faculty Initial: MIH
LAB/No LAB: LAB
ubuntu@ubuntu2004:~/Desktop$ grep -c "CSE" course.txt
4
```

Task 01 (c):

```
> ls -a /
```


Task 01 (d):

```
> head -n 17 task1d.txt | tail -n 13
```

```
LAB/No LAB: LAB

Course ID: CSE470
Course Name: Software Engineering
Section: 02
Faculty Initial: FZN
LAB/No LAB: No LAB

Course ID: CSE471
Course Name: System Analysis & Design
Section: 01
Faculty Initial: MIH
LAB/No LAB: LAB
ubuntu@ubuntu2004:~/Desktop$ grep -c "CSE" course.txt
4
ubuntu@ubuntu2004:~/Desktop$ head -n 17 course.txt | tail -n 13
LAB/No LAB: LAB

Course ID: CSE341
Course Name: Microprocessor
Section: 03
Faculty Initial: RRH
LAB/No LAB: LAB

Course ID: CSE470
Course Name: Software Engineering
Section: 02
Faculty Initial: FZN
LAB/No LAB: No LAB
ubuntu@ubuntu2004:~/Desktop$
```