

CSE321

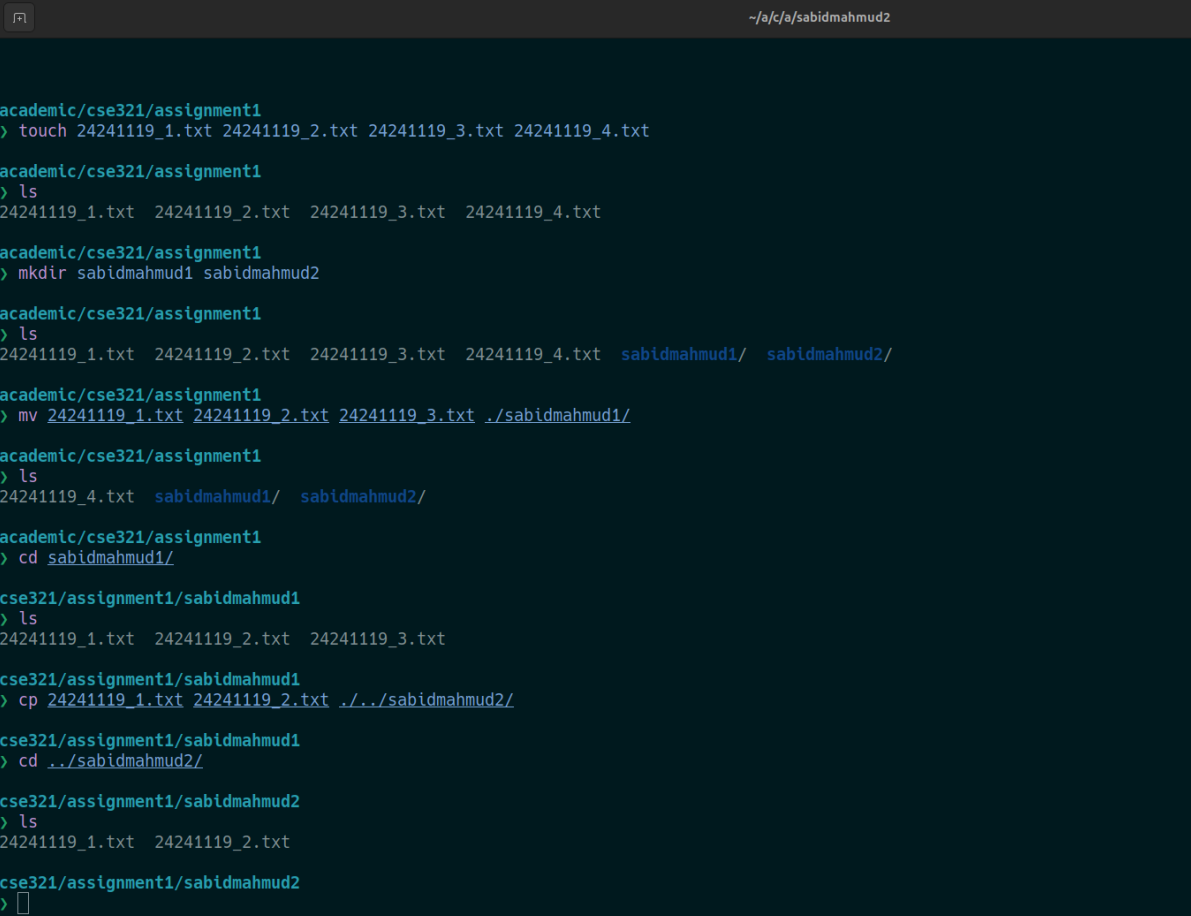
Lab Assignment 1

Answer to the Question (A)

Tasks:

1. Create 4 files named yourID_1.txt, yourID_2.txt, yourID_3, yourID_4.txt and 2 directories named YourName1, YourName2.
2. Move yourID_1.txt, yourID_2.txt, yourID_3.txt in YourName1 directory.
3. Copy yourID_1.txt, yourID_2.txt YourName2 directory.

Screenshot:



```
~/a/c/a/sabidmahmud2

academic/cse321/assignment1
> touch 24241119_1.txt 24241119_2.txt 24241119_3.txt 24241119_4.txt

academic/cse321/assignment1
> ls
24241119_1.txt 24241119_2.txt 24241119_3.txt 24241119_4.txt

academic/cse321/assignment1
> mkdir sabidmahmud1 sabidmahmud2

academic/cse321/assignment1
> ls
24241119_1.txt 24241119_2.txt 24241119_3.txt 24241119_4.txt sabidmahmud1/ sabidmahmud2/

academic/cse321/assignment1
> mv 24241119_1.txt 24241119_2.txt 24241119_3.txt ./sabidmahmud1/

academic/cse321/assignment1
> ls
24241119_4.txt sabidmahmud1/ sabidmahmud2/

academic/cse321/assignment1
> cd sabidmahmud1/

cse321/assignment1/sabidmahmud1
> ls
24241119_1.txt 24241119_2.txt 24241119_3.txt

cse321/assignment1/sabidmahmud1
> cp 24241119_1.txt 24241119_2.txt ../../sabidmahmud2/

cse321/assignment1/sabidmahmud1
> cd ../../sabidmahmud2/

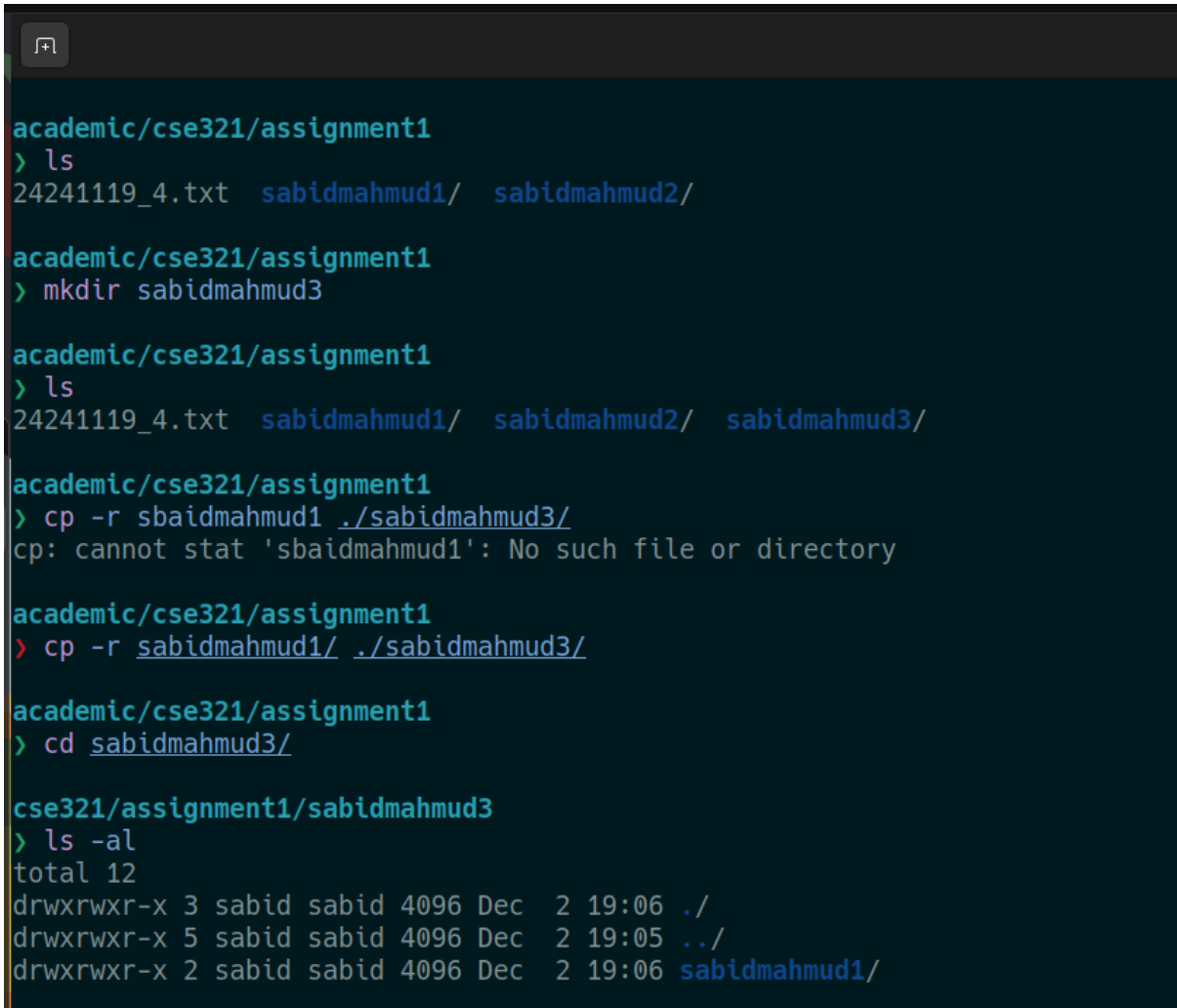
cse321/assignment1/sabidmahmud2
> ls
24241119_1.txt 24241119_2.txt

cse321/assignment1/sabidmahmud2
>
```

Task:

1. **Create** another directory YourName3.
2. **Copy** the YourName1 directory along with its contents to the YourName3 directory.
3. Now **go into** the YourName3 directory and check the permissions of the files/directory

Screenshot:

A terminal window with a dark background and light-colored text. The prompt is 'academic/cse321/assignment1'. The user runs 'ls', showing '24241119_4.txt', 'sabidmahmud1/', and 'sabidmahmud2/'. Then they run 'mkdir sabidmahmud3'. They run 'ls' again, showing the new directory. They attempt 'cp -r sbaidmahmud1 ./sabidmahmud3/' but get an error: 'cp: cannot stat 'sbaidmahmud1': No such file or directory'. They then run 'cp -r sabidmahmud1/ ./sabidmahmud3/'. Finally, they run 'cd sabidmahmud3/' and 'ls -al', showing a directory listing with permissions, owner, group, size, date, time, and file names.

```
academic/cse321/assignment1
> ls
24241119_4.txt  sabidmahmud1/  sabidmahmud2/

academic/cse321/assignment1
> mkdir sabidmahmud3

academic/cse321/assignment1
> ls
24241119_4.txt  sabidmahmud1/  sabidmahmud2/  sabidmahmud3/

academic/cse321/assignment1
> cp -r sbaidmahmud1 ./sabidmahmud3/
cp: cannot stat 'sbaidmahmud1': No such file or directory

academic/cse321/assignment1
> cp -r sabidmahmud1/ ./sabidmahmud3/

academic/cse321/assignment1
> cd sabidmahmud3/

cse321/assignment1/sabidmahmud3
> ls -al
total 12
drwxrwxr-x 3 sabid sabid 4096 Dec  2 19:06 ./
drwxrwxr-x 5 sabid sabid 4096 Dec  2 19:05 ../
drwxrwxr-x 2 sabid sabid 4096 Dec  2 19:06 sabidmahmud1/
```

Task:

1. change the permissions for both groups and others to only read-execute for all the files.
2. Check the file permissions to make sure that groups and others permissions are set to r-x.

Screenshot:

```
cse321/assignment1/sabidmahmud3
> chmod -R 755 *

cse321/assignment1/sabidmahmud3
> ls -l
total 4
drwxr-xr-x 2 sabid sabid 4096 Dec  2 19:06 sabidmahmud1/

cse321/assignment1/sabidmahmud3
> cd sabidmahmud1/

assignment1/sabidmahmud3/sabidmahmud1
> ls -l
total 0
-rwxr-xr-x 1 sabid sabid 0 Dec  2 19:06 24241119_1.txt*
-rwxr-xr-x 1 sabid sabid 0 Dec  2 19:06 24241119_2.txt*
-rwxr-xr-x 1 sabid sabid 0 Dec  2 19:06 24241119_3.txt*

assignment1/sabidmahmud3/sabidmahmud1
> 
```

- Task: Go back to the previous directory and print all the directories and files in the current working directory.

```
cse321/assignment1/sabidmahmud3
> cd ..

academic/cse321/assignment1
> pwd
/home/sabid/academic/cse321/assignment1

academic/cse321/assignment1
> ls -laR
.:
total 20
drwxrwxr-x 5 sabid sabid 4096 Dec  2 21:21 ./
drwxrwxr-x 3 sabid sabid 4096 Dec  2 18:52 ../
-rw-rw-r-- 1 sabid sabid   0 Dec  2 21:20 24241119_4.txt
drwxrwxr-x 2 sabid sabid 4096 Dec  2 21:21 sabidmahmud1/
drwxrwxr-x 2 sabid sabid 4096 Dec  2 21:23 sabidmahmud2/
drwxrwxr-x 3 sabid sabid 4096 Dec  2 21:24 sabidmahmud3/

./sabidmahmud1:
total 8
drwxrwxr-x 2 sabid sabid 4096 Dec  2 21:21 ./
drwxrwxr-x 5 sabid sabid 4096 Dec  2 21:21 ../
-rw-rw-r-- 1 sabid sabid   0 Dec  2 21:20 24241119_1.txt
-rw-rw-r-- 1 sabid sabid   0 Dec  2 21:22 24241119_2.txt
-rw-rw-r-- 1 sabid sabid   0 Dec  2 21:20 24241119_3.txt

./sabidmahmud2:
total 8
drwxrwxr-x 2 sabid sabid 4096 Dec  2 21:23 ./
drwxrwxr-x 5 sabid sabid 4096 Dec  2 21:21 ../
-rw-rw-r-- 1 sabid sabid   0 Dec  2 21:23 24241119_1.txt
-rw-rw-r-- 1 sabid sabid   0 Dec  2 21:23 24241119_2.txt

./sabidmahmud3:
total 12
drwxrwxr-x 3 sabid sabid 4096 Dec  2 21:24 ./
drwxrwxr-x 5 sabid sabid 4096 Dec  2 21:21 ../
drwxr-xr-x 2 sabid sabid 4096 Dec  2 21:24 sabidmahmud1/

./sabidmahmud3/sabidmahmud1:
total 8
drwxr-xr-x 2 sabid sabid 4096 Dec  2 21:24 ./
drwxrwxr-x 3 sabid sabid 4096 Dec  2 21:24 ../
-rwxr-xr-x 1 sabid sabid   0 Dec  2 21:24 24241119_1.txt*
-rwxr-xr-x 1 sabid sabid   0 Dec  2 21:24 24241119_2.txt*
-rwxr-xr-x 1 sabid sabid   0 Dec  2 21:24 24241119_3.txt*

academic/cse321/assignment1
```

Task:

- Move the `sabidmahmud3` directory to the root directory and delete the rest of the files and folders in the current working directory.

Screenshot:

```
academic/cse321/assignment1
> sudo mv sabidmahmud3/ /
academic/cse321/assignment1
> ls
24241119_4.txt  sabidmahmud1/  sabidmahmud2/
academic/cse321/assignment1
> cd /
/
> ls
bin@          boot/  dev/  home/  lib32@  lib.usr-is-merged/  media/  opt/  root/  sabidmahmud3/  sbin.usr-is-merged/  srv/  tmp/  var/
bin.usr-is-merged/  cdrom/  etc/  lib@  lib64@  lost+found/  mnt/  proc/  run/  sbin@  snap/  sys/  usr/
/
> cd ~/academic/cse321/assignment1/
academic/cse321/assignment1
> ls
24241119_4.txt  sabidmahmud1/  sabidmahmud2/
academic/cse321/assignment1
> rm -r *
academic/cse321/assignment1
> ls
academic/cse321/assignment1
> 
```

All the commands:

```
touch 24241119_1.txt 24241119_2.txt 24241119_3.txt 24241119_4.txt

mkdir sabidmahmud1 sabidmahmud2

mv 24241119_1.txt 24241119_2.txt 24241119_3.txt sabidmahmud1/

cd sabidmahmud1
cp 24241119_1.txt 24241119_2.txt sabidmahmud2/

cd ..
mkdir sabidmahmud3

cp -r sabidmahmud1 sabidmahmud3/

cd SabidMahmud3

ls -l
chmod -R 755 *

ls -l

cd ..

sudo mv sabidmahmud3 /

rm -R *

ls
```

Answer to question (b)

Task:

- Create a file containing the running semester's course information and count the lines containing CSE in that file named course.txt

Screenshot:

```
academic/cse321/assignment1
> touch course.txt

academic/cse321/assignment1
> nano course.txt

academic/cse321/assignment1 [🕒2m37s]
> cat course.txt
CourseID course_name section
CSE321    operating system 15
CSE260    digital logic design 05
EC0102    Introduction to macroeconomics 06
MAT215    Nam vule gechi :( 01

academic/cse321/assignment1
> grep -ci "CSE" course.txt
2

academic/cse321/assignment1
> 
```

(C) Task:

Show all the hidden files in the root directory:

```
/
> pwd
/

/
> ls -a
./          home/      opt/      srv/
../         lib@      proc/     sys/
bin@        lib32@    root/     tmp/
bin.usr-is-merged/ lib64@    run/      usr/
boot/       lib.usr-is-merged/ sabidmahmud3/ var/
cdrom/      lost+found/ sbin@
dev/        media/    sbin.usr-is-merged/
etc/        mnt/     snap/

/
> 
```


d.

Show only lines 5-17 of a text file.

```
~/a/c/assignment1

academic/cse321/assignment1
> ls
course.txt  more_than_17_lines.txt

academic/cse321/assignment1
> head -n 17 ./more_than_17_lines.txt | tail -n +5

Line 5: Five lines already, but we're not stopping yet.
Line 6: Here's the sixth line of this simple text file.
Line 7: Lucky number seven is now represented here.
Line 8: Eight lines in, we're almost halfway to seventeen.
Line 9: The ninth line makes an appearance here.
Line 10: Double digits! Line ten arrives.
Line 11: Just six more to reach our target.
Line 12: Line twelve is in the mix now.
Line 13: Thirteen might be unlucky for some, but not here.
Line 14: Line fourteen is here to bridge the gap.
Line 15: We're so close now with fifteen lines done.
Line 16: One more after this sixteenth line.
Line 17: Seventeen lines completed successfully!

academic/cse321/assignment1
> 
```

Screen Shots of running the C files:

Running 2(a), 2(b)

```
~/a/c/assignment1

academic/cse321/assignment1 [C v13.2.0-gcc]
> ls
2a*  2b*  2b_input.txt  2c*  2d*  2e*  course.txt  more_than_17_lines.txt
2a.c 2b.c 2b_output.txt 2c.c 2d.c 2e.c INPUT.txt

academic/cse321/assignment1 [C v13.2.0-gcc]
> gcc ./2a.c -o 2a

academic/cse321/assignment1 [C v13.2.0-gcc]
> ./2a
Enter the first number: 12
Enter the second number: 24
Num1 < Num2.
So, Addition result: 36.000000

academic/cse321/assignment1 [C v13.2.0-gcc] [1m12s]
> gcc ./2b.c -o 2b

academic/cse321/assignment1 [C v13.2.0-gcc]
> ./2b

academic/cse321/assignment1 [C v13.2.0-gcc]
> gcc ./2b.c -o 2b

academic/cse321/assignment1 [C v13.2.0-gcc]
> ./2b

academic/cse321/assignment1 [C v13.2.0-gcc]
> cat 2b_output.txt
I love python programming.

academic/cse321/assignment1 [C v13.2.0-gcc]
> cat 2b_input.txt
I love python programming.
```

Running 2(c), 2(d):

```
~/a/c/assignment1

academic/cse321/assignment1 [C v13.2.0-gcc]
> gcc ./2c.c -o 2c

academic/cse321/assignment1 [C v13.2.0-gcc]
> ./2c
Enter the password: BR@CUspring
Digit missing,

academic/cse321/assignment1 [C v13.2.0-gcc]
> ./2c
Enter the password: bracuspring
Digit missing, Uppercase character missing, Special character missing,

academic/cse321/assignment1 [C v13.2.0-gcc][08s]
> ./2c
Enter the password: BR@CU20spring22
• OK

academic/cse321/assignment1 [C v13.2.0-gcc]
> gcc ./2d.c -o 2d

academic/cse321/assignment1 [C v13.2.0-gcc]
> ./2d
Email: fahmid@kaaaj.com
Email address is outdated

academic/cse321/assignment1 [C v13.2.0-gcc][09s]
> ./2d
Email: zaki@sheba.xyz
Email address is okay

academic/cse321/assignment1 [C v13.2.0-gcc][09s]
> gcc ./2e.c -o 2e
```

2(e):

```
~/a/c/assignment1
academic/cse321/assignment1 [C v13.2.0-gcc][🕒3s]
> gcc ./2e.c -o 2e

academic/cse321/assignment1 [C v13.2.0-gcc]
> ./2e
Enter a string: AAABBAAA
Palindrome

academic/cse321/assignment1 [C v13.2.0-gcc][🕒3s]
> ./2e
Enter a string: AABBBABA
Not a palindrome.

academic/cse321/assignment1 [C v13.2.0-gcc][🕒3s]
> ./2e
Enter a string: aabcbaa
Palindrome

academic/cse321/assignment1 [C v13.2.0-gcc][🕒12s]
> □
```