

OSTL- Lab Assignment 1

1. Write shell commands for the following

i) To create a directory in your home directory having two sub directories.

```
mkdir 200905044
```

```
cd 200905044
```

```
mkdir superDir
```

```
cd superDir
```

```
mkdir subDir1 subDir2
```

ii) In 1st directory create 3 different files with different content

```
cd subDir1
```

```
touch a.txt b.txt c.txt
```

```
cat > a.txt
```

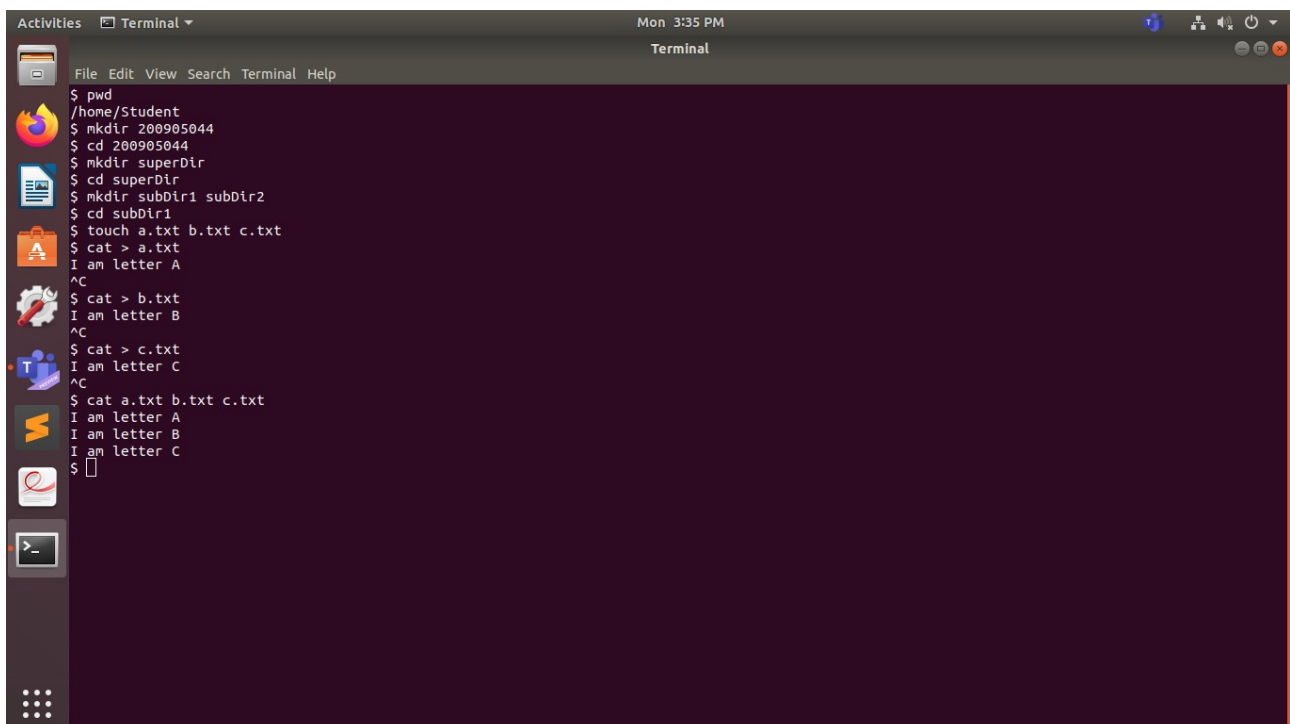
```
I am letter A
```

```
cat > b.txt
```

```
I am letter B
```

```
cat > c.txt
```

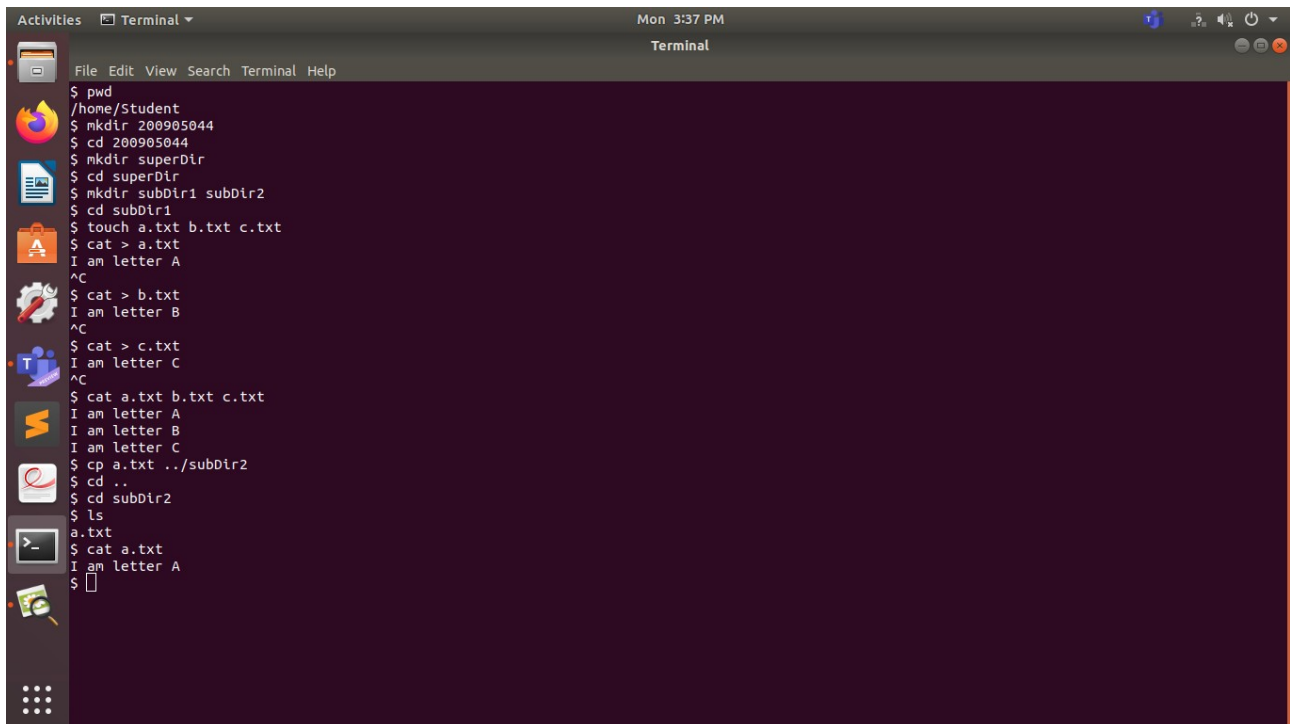
```
I am letter C
```



```
Activities  Terminal  Mon 3:35 PM
Terminal
File Edit View Search Terminal Help
$ pwd
/home/Student
$ mkdir 200905044
$ cd 200905044
$ mkdir superDir
$ cd superDir
$ mkdir subDir1 subDir2
$ cd subDir1
$ touch a.txt b.txt c.txt
$ cat > a.txt
I am letter A
^C
$ cat > b.txt
I am letter B
^C
$ cat > c.txt
I am letter C
^C
$ cat a.txt b.txt c.txt
I am letter A
I am letter B
I am letter C
$
```

iii) Copy 1st file from 1st subdirectory to 2nd subdirectory

cp a.txt ../subDir2

A terminal window titled 'Terminal' with a menu bar (File, Edit, View, Search, Terminal, Help) and a status bar (Mon 3:37 PM). The terminal shows a series of commands and their outputs. The user starts in /home/Student, creates a directory 200905044, enters it, creates superDir, enters it, creates subDir1 and subDir2, enters subDir1, creates three files a.txt, b.txt, and c.txt, and then enters their contents: 'I am letter A', 'I am letter B', and 'I am letter C'. Then, the user copies a.txt to ../subDir2, moves to the parent directory, enters subDir2, lists files (showing a.txt), and cat's its contents ('I am letter A').

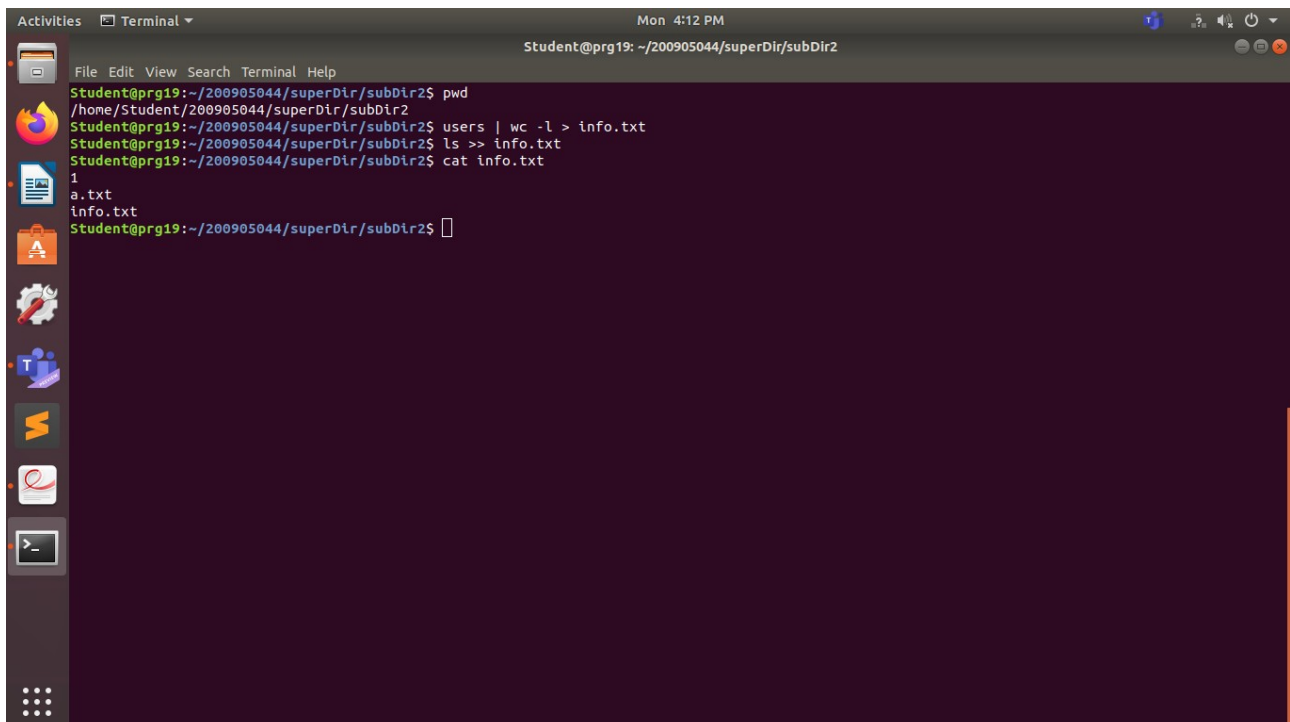
```
$ pwd
/home/Student
$ mkdir 200905044
$ cd 200905044
$ mkdir superDir
$ cd superDir
$ mkdir subDir1 subDir2
$ cd subDir1
$ touch a.txt b.txt c.txt
$ cat > a.txt
I am letter A
^C
$ cat > b.txt
I am letter B
^C
$ cat > c.txt
I am letter C
^C
$ cat a.txt b.txt c.txt
I am letter A
I am letter B
I am letter C
$ cp a.txt ../subDir2
$ cd ..
$ cd subDir2
$ ls
a.txt
$ cat a.txt
I am letter A
$
```

iv) Create one more file in 2nd subdirectory , which has output of number of users and number of files

users | wc -l > info.txt

ls >> info.txt

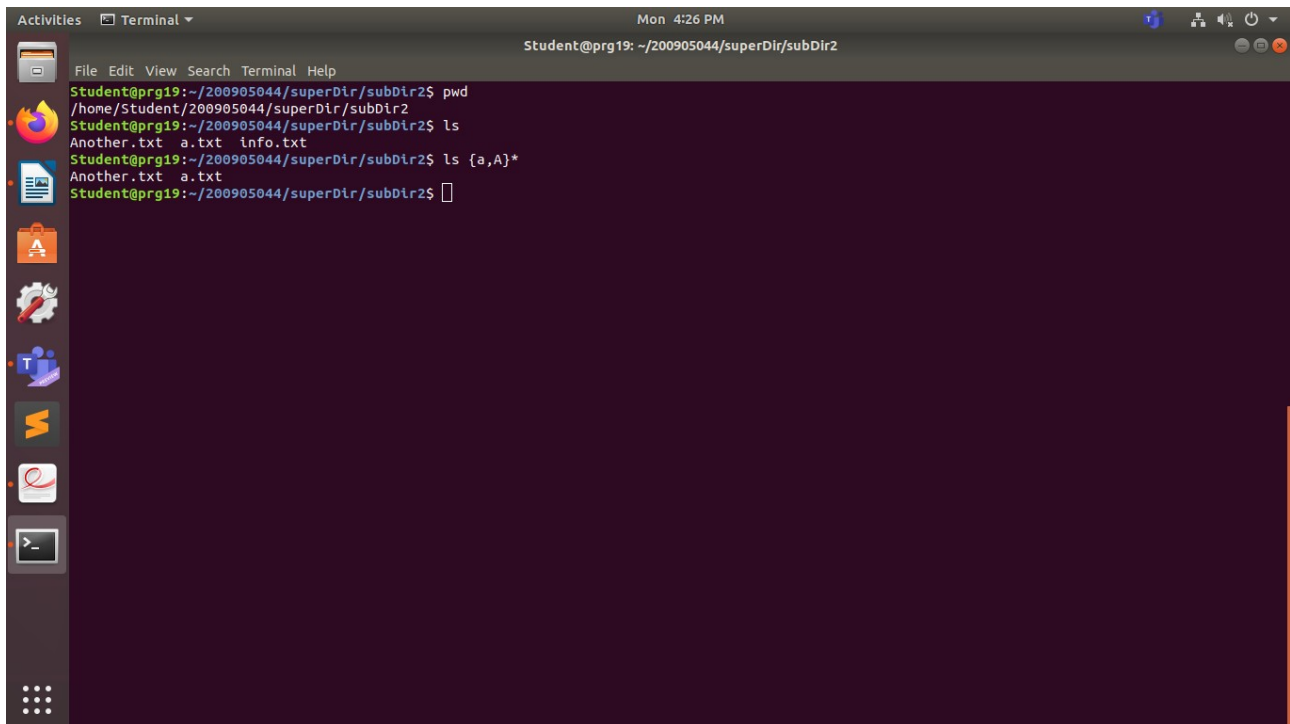
cat info.txt

A terminal window titled 'Terminal' with a menu bar (File, Edit, View, Search, Terminal, Help) and a status bar (Mon 4:12 PM). The terminal shows the user in the directory ~/200905044/superDir/subDir2. The user runs 'pwd' (showing the full path), then 'users | wc -l > info.txt', then 'ls >> info.txt', and finally 'cat info.txt', which outputs '1', 'a.txt', and 'info.txt'.

```
Student@prg19: ~/200905044/superDir/subDir2
Student@prg19:~/200905044/superDir/subDir2$ pwd
/home/Student/200905044/superDir/subDir2
Student@prg19:~/200905044/superDir/subDir2$ users | wc -l > info.txt
Student@prg19:~/200905044/superDir/subDir2$ ls >> info.txt
Student@prg19:~/200905044/superDir/subDir2$ cat info.txt
1
a.txt
info.txt
Student@prg19:~/200905044/superDir/subDir2$
```

v) List all the files starting with a or A

`ls {a,A}*`

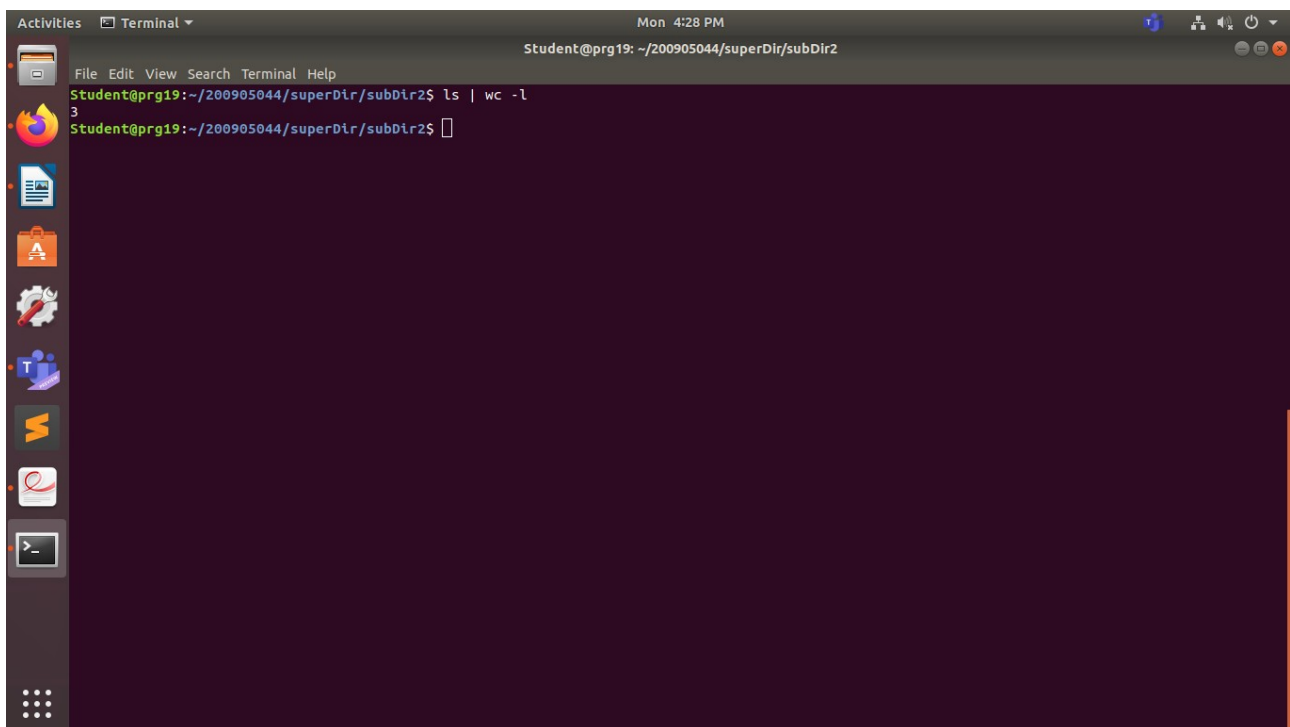


A terminal window titled 'Terminal' with a menu bar (File, Edit, View, Search, Terminal, Help) and a status bar (Student@prg19: ~/200905044/superDir/subDir2). The terminal shows the following commands and output:

```
Student@prg19:~/200905044/superDir/subDir2$ pwd
/home/Student/200905044/superDir/subDir2
Student@prg19:~/200905044/superDir/subDir2$ ls
Another.txt  a.txt  info.txt
Student@prg19:~/200905044/superDir/subDir2$ ls {a,A}*
Another.txt  a.txt
Student@prg19:~/200905044/superDir/subDir2$
```

vi) To count number of files in current directory

`ls | wc -l`

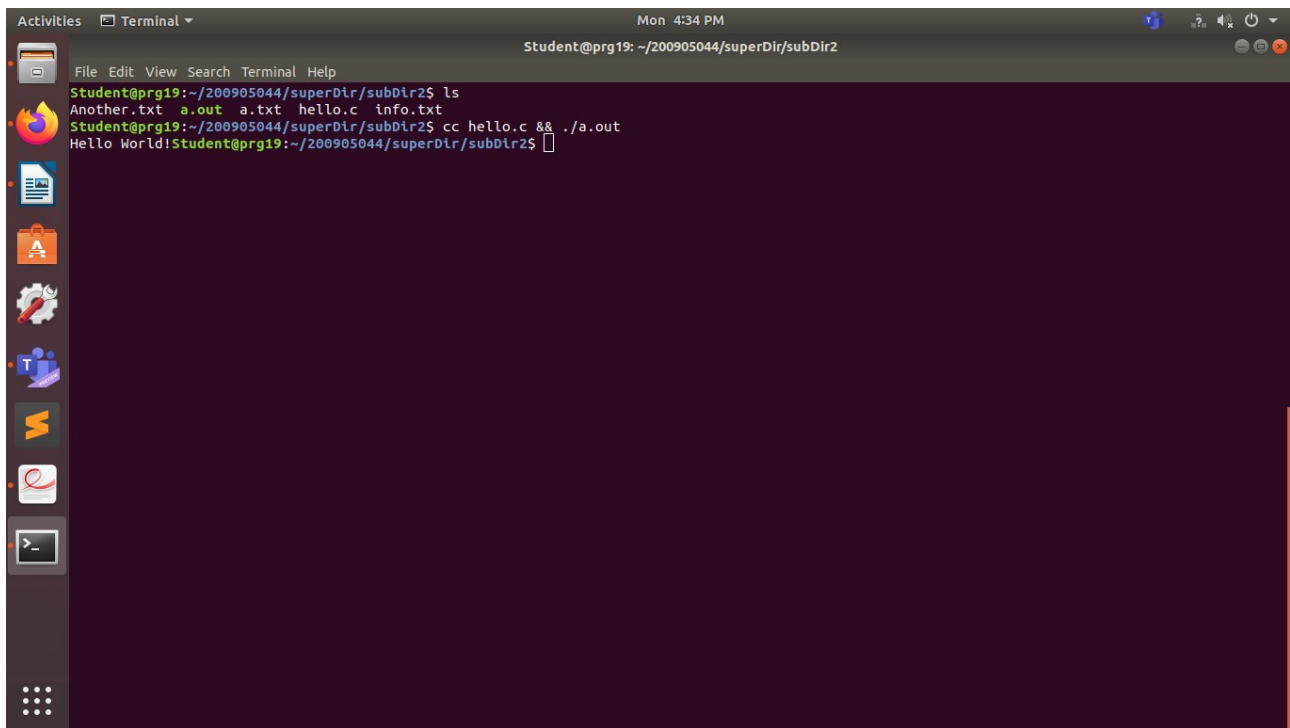


A terminal window titled 'Terminal' with a menu bar (File, Edit, View, Search, Terminal, Help) and a status bar (Student@prg19: ~/200905044/superDir/subDir2). The terminal shows the following commands and output:

```
Student@prg19:~/200905044/superDir/subDir2$ ls | wc -l
3
Student@prg19:~/200905044/superDir/subDir2$
```

vii) Display output if compilation is success

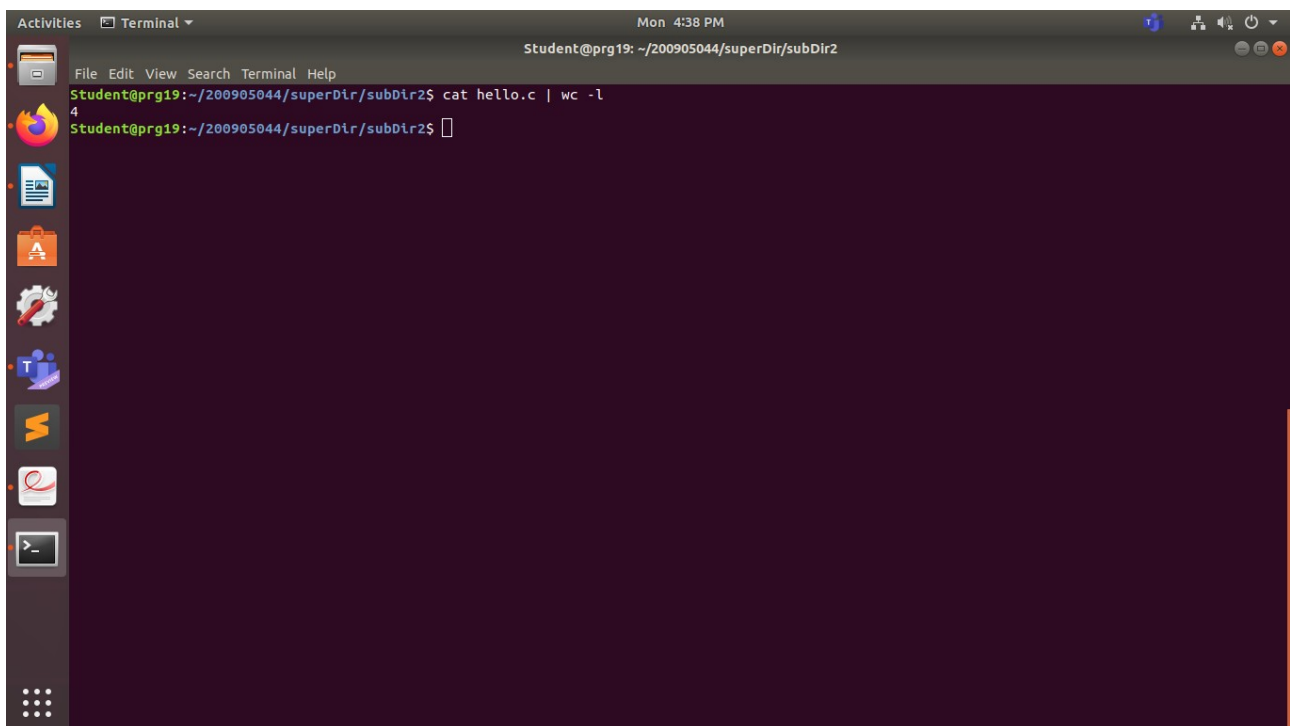
`cc hello.c && ./a.out`

A terminal window titled 'Terminal' with a menu bar (File, Edit, View, Search, Terminal, Help) and a status bar (Mon 4:34 PM, Student@prg19: ~/200905044/superDir/subDir2). The terminal shows the following commands and output:

```
Student@prg19:~/200905044/superDir/subDir2$ ls
Another.txt  a.out  a.txt  hello.c  info.txt
Student@prg19:~/200905044/superDir/subDir2$ cc hello.c && ./a.out
Hello World!Student@prg19:~/200905044/superDir/subDir2$
```

viii) Count number of lines in an input file

`cat hello.c | wc -l`

A terminal window titled 'Terminal' with a menu bar (File, Edit, View, Search, Terminal, Help) and a status bar (Mon 4:38 PM, Student@prg19: ~/200905044/superDir/subDir2). The terminal shows the following commands and output:

```
Student@prg19:~/200905044/superDir/subDir2$ cat hello.c | wc -l
4
Student@prg19:~/200905044/superDir/subDir2$
```

2) Execute the following in order

i) date

ii) ls

iii) pwd

Activities Terminal Mon 4:40 PM Student@prg19: ~/200905044/superDir/subDir2

```
File Edit View Search Terminal Help
Student@prg19:~/200905044/superDir/subDir2$ date
Mon Nov  8 16:40:40 IST 2021
Student@prg19:~/200905044/superDir/subDir2$ ls
Another.txt  a.out  a.txt  hello.c  info.txt
Student@prg19:~/200905044/superDir/subDir2$ pwd
/home/Student/200905044/superDir/subDir2
Student@prg19:~/200905044/superDir/subDir2$
```