



# **LAB REPORT**

**COURSE TITLE** : Operating Systems Lab  
**COURSE CODE** : CSE 210  
**ASSIGNMENT NO.** : 01  
**SUBMISSION DATE** : 29-07-2025

## **SUBMITTED TO**

**NAME** : Mishal Al Rahman  
**DEPT. OF** : Computer Science and Engineering (CSE)  
Bangladesh University of Business &  
Technology (BUBT)

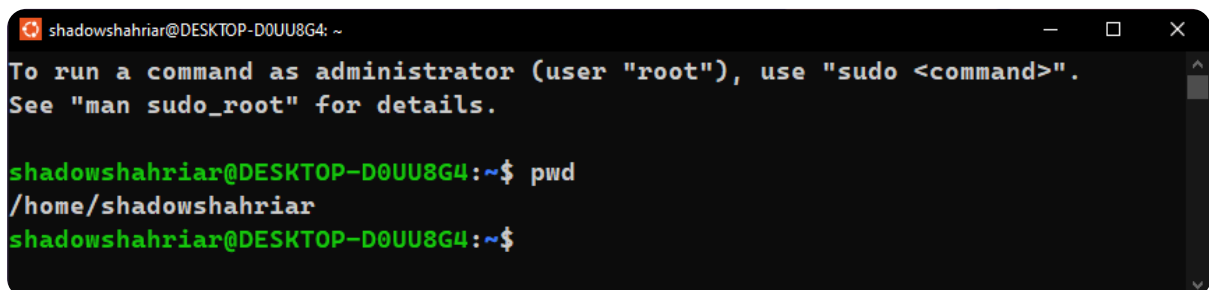
## **SUBMITTED BY**

**NAME** : Shadman Shahriar  
**ID NO.** : 20245103408  
**INTAKE** : 53  
**SECTION** : 1  
**PROGRAM** : B.Sc. Engg. in CSE

# Operating Systems Lab

## 1. Display the path of your current directory

```
pwd
```

A terminal window with a black background and green text. The title bar shows 'shadowshahriar@DESKTOP-D0UU8G4: ~'. The terminal displays a message about running commands as administrator, followed by the command 'pwd' and its output '/home/shadowshahriar'.

```
shadowshahriar@DESKTOP-D0UU8G4: ~  
To run a command as administrator (user "root"), use "sudo <command>".  
See "man sudo_root" for details.  
  
shadowshahriar@DESKTOP-D0UU8G4:~$ pwd  
/home/shadowshahriar  
shadowshahriar@DESKTOP-D0UU8G4:~$
```

*Figure - 1.1. Retrieving the present working directory using the pwd command.*

## 2. Create a new directory called **LabFiles** in your home directory

```
mkdir LabFiles
```

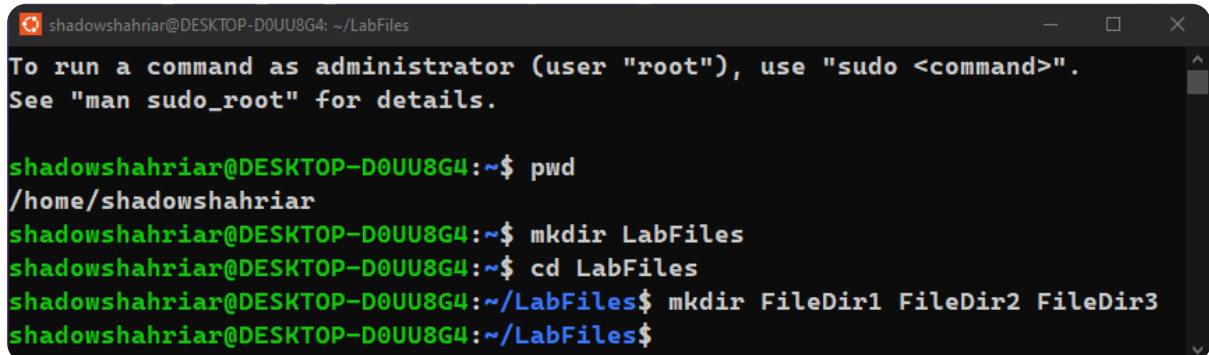
## 3. Navigate into **LabFiles** directory

```
cd LabFiles
```

## 4. Create three new directories inside **LabFiles**

-  FileDir1
-  FileDir2
-  FileDir3

```
mkdir FileDir1 FileDir2 FileDir3
```







A terminal window with a dark background. The title bar shows 'shadowshahriar@DESKTOP-D0UU8G4: ~/LabFiles'. The terminal text includes a message about running commands as administrator, followed by the user's commands: 'pwd' (output: '/home/shadowshahriar'), 'mkdir LabFiles', 'cd LabFiles', and 'mkdir FileDir1 FileDir2 FileDir3'.

```
shadowshahriar@DESKTOP-D0UU8G4: ~/LabFiles
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

shadowshahriar@DESKTOP-D0UU8G4:~$ pwd
/home/shadowshahriar
shadowshahriar@DESKTOP-D0UU8G4:~$ mkdir LabFiles
shadowshahriar@DESKTOP-D0UU8G4:~$ cd LabFiles
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles$ mkdir FileDir1 FileDir2 FileDir3
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles$
```

*Figure - 1.2. Creating directories using the mkdir command.*

## 5. Create three new files inside the new directories

-  **file1.txt** inside  **FileDir1**
-  **file2.txt** inside  **FileDir2**
-  **file3.txt** inside  **FileDir3**

```
touch FileDir1/file1.txt
touch FileDir2/file2.txt
touch FileDir3/file3.txt
```

## 6. List the files in the **LabFiles** directory

```
ls
```

```
shadowshahriar@DESKTOP-D0UU8G4: ~/LabFiles
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

shadowshahriar@DESKTOP-D0UU8G4:~$ pwd
/home/shadowshahriar
shadowshahriar@DESKTOP-D0UU8G4:~$ mkdir LabFiles
shadowshahriar@DESKTOP-D0UU8G4:~$ cd LabFiles
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles$ mkdir FileDir1 FileDir2 FileDir3
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles$ touch FileDir1/file1.txt
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles$ touch FileDir2/file2.txt
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles$ touch FileDir3/file3.txt
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles$ ls
FileDir1 FileDir2 FileDir3
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles$
```

*Figure - 1.3. Listing the items in the LabFiles directory.*

## 7. Add some contents in the `file1.txt` and `file2.txt` file using the terminal

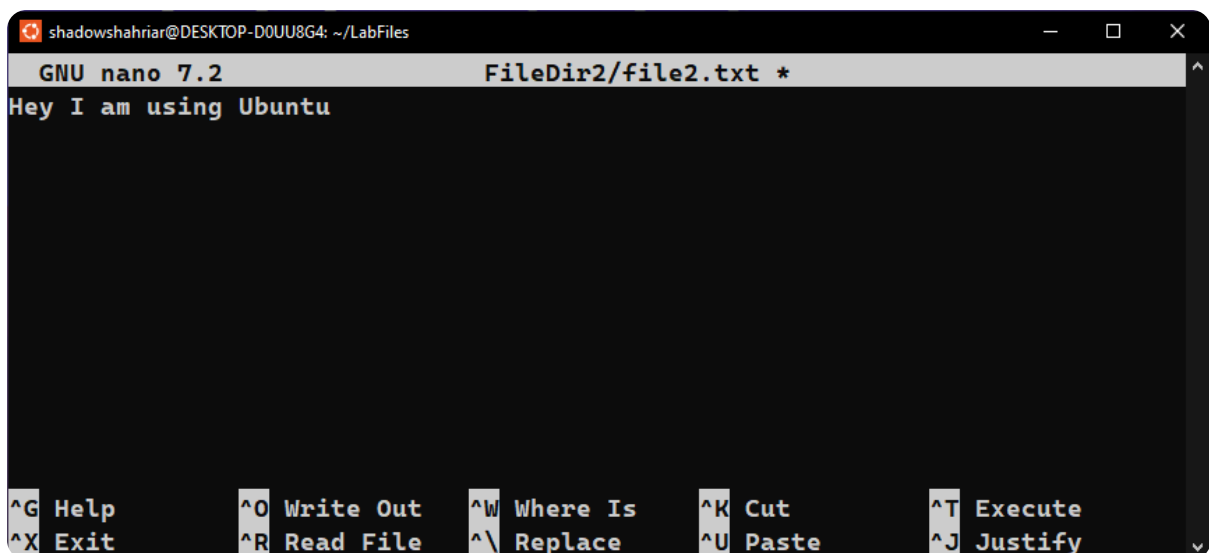
```
nano FileDir1/file1.txt
nano FileDir2/file2.txt
```

```
shadowshahriar@DESKTOP-D0UU8G4: ~/LabFiles
FileDir1 FileDir2 FileDir3
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles$ nano FileDir1/file1.txt
```

*Figure - 1.4. Using nano to edit the text files directly from the terminal.*



*Figure - 1.5. Editing file1.txt*



*Figure - 1.6. Editing file2.txt*

## 8. Display the contents of `file1.txt`

```
cat FileDir1/file1.txt
```

```
shadowshahriar@DESKTOP-D0UU8G4: ~/LabFiles
FileDir1 FileDir2 FileDir3
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles$ nano FileDir1/file1.txt
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles$ nano FileDir2/file2.txt
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles$ cat FileDir1/file1.txt
Hello World
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles$
```

*Figure - 1.7. Retrieving the contents of file1.txt*

## 9. Make a copy of `file1.txt` called `backup.txt` in `LabFiles` directory

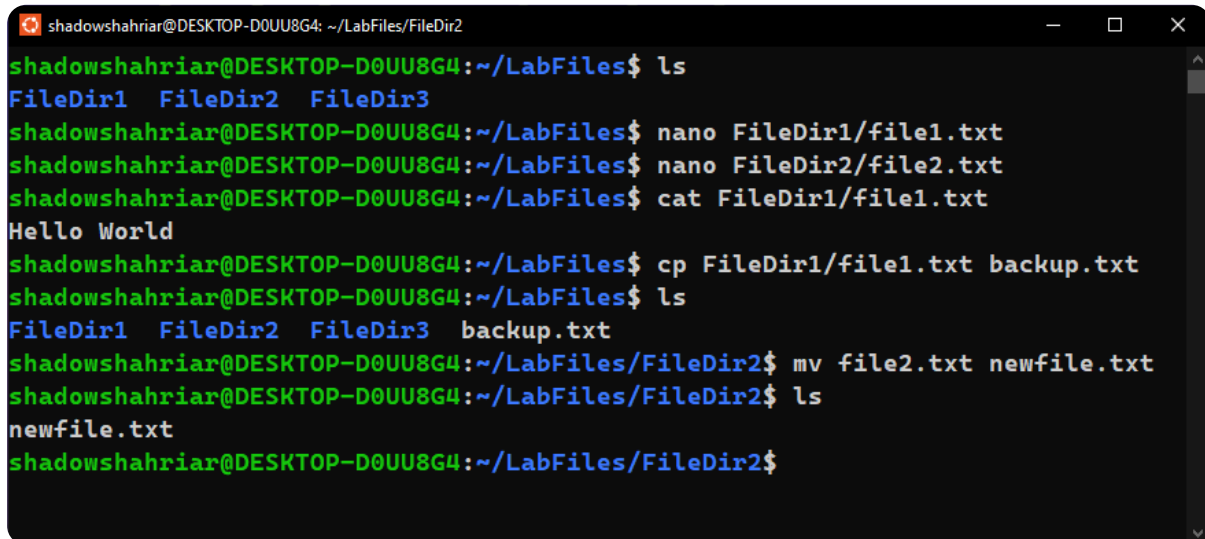
```
cp FileDir1/file1.txt backup.txt
```

```
shadowshahriar@DESKTOP-D0UU8G4: ~/LabFiles
FileDir1 FileDir2 FileDir3
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles$ nano FileDir1/file1.txt
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles$ nano FileDir2/file2.txt
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles$ cat FileDir1/file1.txt
Hello World
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles$ cp FileDir1/file1.txt backup.txt
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles$ ls
FileDir1 FileDir2 FileDir3 backup.txt
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles$
```

*Figure - 1.8. Copying file1.txt as backup.txt in the LabFiles directory.*

## 10. Rename `file2.txt` to `newfile.txt`

```
mv file2.txt newfile.txt
```

A terminal window titled 'shadowshahriar@DESKTOP-D0UU8G4: ~/LabFiles/FileDir2'. The terminal shows a series of commands and their outputs. First, 'ls' is run in ~/LabFiles, showing FileDir1, FileDir2, and FileDir3. Then, 'nano FileDir1/file1.txt' and 'nano FileDir2/file2.txt' are executed. A 'cat FileDir1/file1.txt' command shows the output 'Hello World'. Then, 'cp FileDir1/file1.txt backup.txt' is run. Another 'ls' command in ~/LabFiles shows FileDir1, FileDir2, FileDir3, and backup.txt. Finally, the user navigates to ~/LabFiles/FileDir2 and runs 'mv file2.txt newfile.txt'. A subsequent 'ls' command in the same directory shows 'newfile.txt'.

```
shadowshahriar@DESKTOP-D0UU8G4: ~/LabFiles/FileDir2
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles$ ls
FileDir1  FileDir2  FileDir3
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles$ nano FileDir1/file1.txt
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles$ nano FileDir2/file2.txt
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles$ cat FileDir1/file1.txt
Hello World
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles$ cp FileDir1/file1.txt backup.txt
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles$ ls
FileDir1  FileDir2  FileDir3  backup.txt
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles/FileDir2$ mv file2.txt newfile.txt
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles/FileDir2$ ls
newfile.txt
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles/FileDir2$
```

*Figure - 1.9. Renaming file2.txt to newfile.txt*

## 11. Move `newfile.txt` to the `FileDir3` changing its name to `newfile2.txt`

```
mv newfile.txt ../FileDir3/newfile2.txt
```

## 12. Remove `file1.txt` from the `FileDir1` directory

```
rm file1.txt
```

```
shadowshahriar@DESKTOP-D0UU8G4: ~/LabFiles/FileDir1
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

shadowshahriar@DESKTOP-D0UU8G4:~$ pwd
/home/shadowshahriar
shadowshahriar@DESKTOP-D0UU8G4:~$ mkdir LabFiles
shadowshahriar@DESKTOP-D0UU8G4:~$ cd LabFiles
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles$ mkdir FileDir1 FileDir2 FileDir3
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles$ touch FileDir1/file1.txt
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles$ touch FileDir2/file2.txt
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles$ touch FileDir3/file3.txt
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles$ ls
FileDir1 FileDir2 FileDir3
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles$ nano FileDir1/file1.txt
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles$ nano FileDir2/file2.txt
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles$ cat FileDir1/file1.txt
Hello World
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles$ cp FileDir1/file1.txt backup.txt
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles$ ls
FileDir1 FileDir2 FileDir3 backup.txt
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles/FileDir2$ mv file2.txt newfile.txt
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles/FileDir2$ ls
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles/FileDir2$ mv newfile.txt ../FileDir3/newfile2.txt
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles/FileDir2$ cd ..
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles$ cd FileDir3
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles/FileDir3$ ls
file3.txt newfile2.txt
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles/FileDir3$ cd ../FileDir1
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles/FileDir1$ ls
file1.txt
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles/FileDir1$ rm file1.txt
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles/FileDir1$ ls
shadowshahriar@DESKTOP-D0UU8G4:~/LabFiles/FileDir1$
```

*Figure - 1.10. All of the commands that were used to complete tasks 1-20*