



# Operating System

## Lab #4

**Submitted By:**

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BSCS-5

## Creation of files atomic-notes , result.comp, stock and myfile

```

mahnoor@mahnoor-VMware-Virtual-Platform: ~
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

mahnoor@mahnoor-VMware-Virtual-Platform:~$ ls
books  Documents  Music  Public  Templates
Desktop Downloads Pictures snap  Videos
mahnoor@mahnoor-VMware-Virtual-Platform:~$ cat > atomic-notes
Hello
^Z
[1]+  Stopped                  cat > atomic-notes
mahnoor@mahnoor-VMware-Virtual-Platform:~$ cat > result.comp
Hi
^Z
[2]+  Stopped                  cat > result.comp
mahnoor@mahnoor-VMware-Virtual-Platform:~$ ls
atomic-notes  Desktop  Downloads  Pictures  result.comp  Templates
books         Documents Music      Public    snap         Videos
mahnoor@mahnoor-VMware-Virtual-Platform:~$ cat > stock
Mahnoor
^Z
[3]+  Stopped                  cat > stock
mahnoor@mahnoor-VMware-Virtual-Platform:~$ cat > myfile
Farrukh
```

```

mahnoor@mahnoor-VMware-Virtual-Platform:~$ cat > myfile
Farrukh
^Z
[4]+  Stopped                  cat > myfile
mahnoor@mahnoor-VMware-Virtual-Platform:~$ ls
atomic-notes  Desktop  Downloads  myfile  Public  snap  Templates
books         Documents Music     Pictures result.comp  stock  Videos
mahnoor@mahnoor-VMware-Virtual-Platform:~$
```

### Task 1:

I accidentally created the atomic-notes file in the main directory, but then I moved it into the books directory and renamed it to at-notes

```
mahnoor@mahnoor-VMware-Virtual-Platform:~$ cd books
mahnoor@mahnoor-VMware-Virtual-Platform:~/books$ ls
chemistry  computer  math  physics
mahnoor@mahnoor-VMware-Virtual-Platform:~/books$ cd ..
mahnoor@mahnoor-VMware-Virtual-Platform:~$ mv atomic-notes books/
mahnoor@mahnoor-VMware-Virtual-Platform:~$ cd books
mahnoor@mahnoor-VMware-Virtual-Platform:~/books$ ls
atomic-notes  chemistry  computer  math  physics
mahnoor@mahnoor-VMware-Virtual-Platform:~/books$ mv atomic-notes at-notes
mahnoor@mahnoor-VMware-Virtual-Platform:~/books$ ls
at-notes  chemistry  computer  math  physics
mahnoor@mahnoor-VMware-Virtual-Platform:~/books$
```

### Task 2:

```
mahnoor@mahnoor-VMware-Virtual-Platform:~/books$ cd ..
mahnoor@mahnoor-VMware-Virtual-Platform:~$ mv atomic-notes books/
mahnoor@mahnoor-VMware-Virtual-Platform:~$ cd books
mahnoor@mahnoor-VMware-Virtual-Platform:~/books$ ls
atomic-notes  chemistry  computer  math  physics
mahnoor@mahnoor-VMware-Virtual-Platform:~/books$ mv atomic-notes at-notes
mahnoor@mahnoor-VMware-Virtual-Platform:~/books$ ls
at-notes  chemistry  computer  math  physics
mahnoor@mahnoor-VMware-Virtual-Platform:~/books$ cp at-notes ../physics/nuclear
cp: cannot create regular file '../physics/nuclear': No such file or directory
mahnoor@mahnoor-VMware-Virtual-Platform:~/books$ ls
at-notes  chemistry  computer  math  physics
mahnoor@mahnoor-VMware-Virtual-Platform:~/books$ cp at-notes ../physics/nuclear/
cp: cannot create regular file '../physics/nuclear/': No such file or directory
mahnoor@mahnoor-VMware-Virtual-Platform:~/books$ ^C
mahnoor@mahnoor-VMware-Virtual-Platform:~/books$ mkdir -p physics/nuclear
mahnoor@mahnoor-VMware-Virtual-Platform:~/books$ cp at-notes physics/nuclear/
mahnoor@mahnoor-VMware-Virtual-Platform:~/books$ ls physics/nuclear
at-notes
mahnoor@mahnoor-VMware-Virtual-Platform:~/books$
```

**Task 3: Removed the permissions that were asked and also verified them using ls -l**

```
mahnoor@mahnoor-VMware-Virtual-Platform:~/books$ cd ..
mahnoor@mahnoor-VMware-Virtual-Platform:~$ ls
books  Documents  Music  Pictures  result.comp  stock  Videos
Desktop  Downloads  myfile  Public  snap  Templates
mahnoor@mahnoor-VMware-Virtual-Platform:~$ chmod u-w result.comp
mahnoor@mahnoor-VMware-Virtual-Platform:~$ ls -l result.comp
-r--rw-r-- 1 mahnoor mahnoor 3 Sep  8 13:42 result.comp
```

```
mahnoor@mahnoor-VMware-Virtual-Platform:~$ chmod go+x stock
mahnoor@mahnoor-VMware-Virtual-Platform:~$ ls -l stock
-rw-rwxr-x 1 mahnoor mahnoor 8 Sep  8 13:42 stock
mahnoor@mahnoor-VMware-Virtual-Platform:~$
```

```
-rw-rwxr-x 1 mahnoor mahnoor 8 Sep  8 13:42 stock
mahnoor@mahnoor-VMware-Virtual-Platform:~$ chmod g=rx myfile
mahnoor@mahnoor-VMware-Virtual-Platform:~$ ls -l myfile
-rw-r-xr-- 1 mahnoor mahnoor 8 Sep  8 13:43 myfile
mahnoor@mahnoor-VMware-Virtual-Platform:~$
```



#### Task 4:

```
mahnoor@mahnoor-VMware-Virtual-Platform:~$ mkdir lab4
mahnoor@mahnoor-VMware-Virtual-Platform:~$ ls
books    Documents  lab4      myfile    Public    snap      Templates
Desktop  Downloads  Music     Pictures  result.comp stock      Videos
mahnoor@mahnoor-VMware-Virtual-Platform:~$
```

```
mahnoor@mahnoor-VMware-Virtual-Platform:~$ ls
books    Documents  lab4      myfile    Public    snap      Templates
Desktop  Downloads  Music     Pictures  result.comp stock      Videos
mahnoor@mahnoor-VMware-Virtual-Platform:~$ cd lab4
mahnoor@mahnoor-VMware-Virtual-Platform:~/lab4$ cat > quiz
mahnoor@mahnoor-VMware-Virtual-Platform:~/lab4$ cat > report
mahnoor@mahnoor-VMware-Virtual-Platform:~/lab4$ cat > viva
mahnoor@mahnoor-VMware-Virtual-Platform:~/lab4$
```

```
mahnoor@mahnoor-VMware-Virtual-Platform:~/lab4$ cat > report
mahnoor@mahnoor-VMware-Virtual-Platform:~/lab4$ cat > viva
mahnoor@mahnoor-VMware-Virtual-Platform:~/lab4$ chmod 644 quiz
mahnoor@mahnoor-VMware-Virtual-Platform:~/lab4$ chmod 426 report
mahnoor@mahnoor-VMware-Virtual-Platform:~/lab4$ chmod 775 viva
mahnoor@mahnoor-VMware-Virtual-Platform:~/lab4$ ls -l
total 0
-rw-r--r-- 1 mahnoor mahnoor 0 Sep  8 14:17 quiz
-r---w-rw- 1 mahnoor mahnoor 0 Sep  8 14:17 report
-rwxrwxr-x 1 mahnoor mahnoor 0 Sep  8 14:17 viva
mahnoor@mahnoor-VMware-Virtual-Platform:~/lab4$ chmod 624 report
mahnoor@mahnoor-VMware-Virtual-Platform:~/lab4$ ls -l
total 0
-rw-r--r-- 1 mahnoor mahnoor 0 Sep  8 14:17 quiz
-rw--w-r-- 1 mahnoor mahnoor 0 Sep  8 14:17 report
-rwxrwxr-x 1 mahnoor mahnoor 0 Sep  8 14:17 viva
mahnoor@mahnoor-VMware-Virtual-Platform:~/lab4$
```

Also try to change access permission of **lab4** directory as well and see how it affects.

```
mahnoor@mahnoor-VMware-Virtual-Platform:~$ ls -ld lab4
drwxrwxr-x 2 mahnoor mahnoor 4096 Sep  8 14:17 lab4
mahnoor@mahnoor-VMware-Virtual-Platform:~$ chmod 555 lab4
mahnoor@mahnoor-VMware-Virtual-Platform:~$ ls -ld lab4
dr-xr-xr-x 2 mahnoor mahnoor 4096 Sep  8 14:17 lab4
mahnoor@mahnoor-VMware-Virtual-Platform:~$ cd lab4
mahnoor@mahnoor-VMware-Virtual-Platform:~/lab4$ cat > test
bash: test: Permission denied
mahnoor@mahnoor-VMware-Virtual-Platform:~/lab4$
```