# ADVANCED OPERATING SYSTEM

## ASSIGNMENT

## GROUP O MEMBERS

**PS/CSC/22/0093**

**PS/CSC/22/0063**

**PS/CSC/22/0097**

**PS/CSC/22/0177**

**PS/CSC/22/0006**

**PS/CSC/22/0101**

**PS/CSC/22/0026**

**PS/CSC/22/0103**

**PS/CSC/22/0205**

**PS/CSC/22/0164**
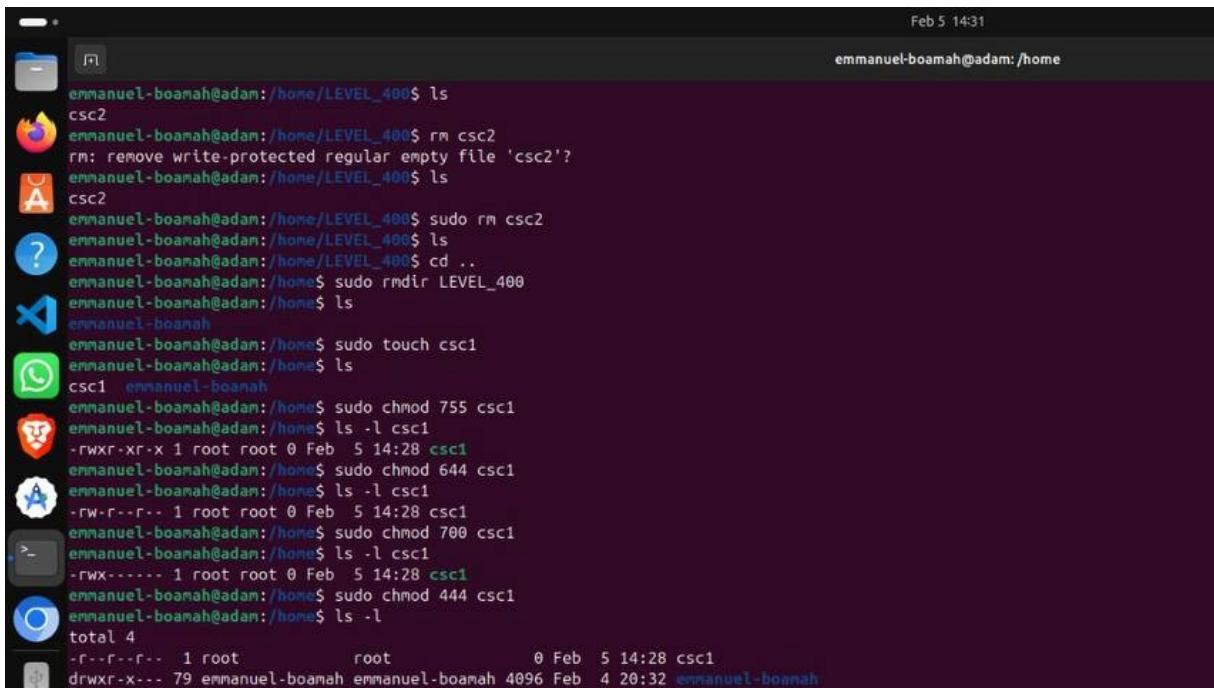
## EXERCISE ONE

## EXERCISE TWO
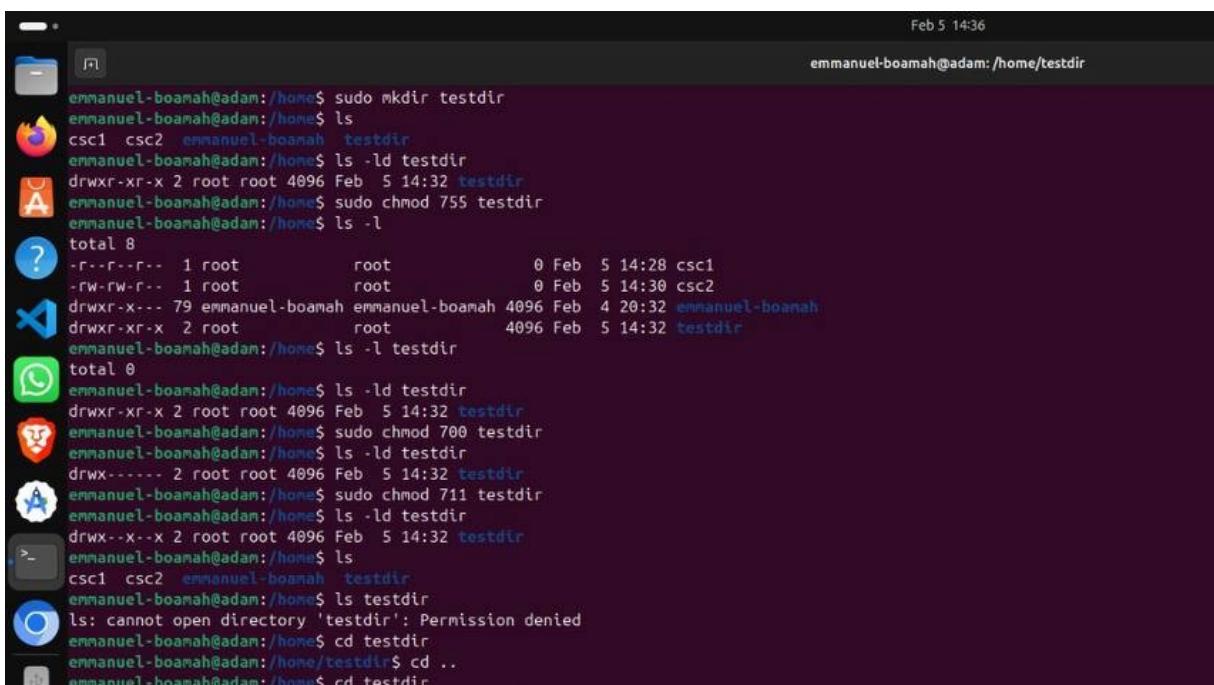
emmanuel-boamah@adam: /home

```
emmanuel-boamah@adam:/home/LEVEL_400$ ls
csc2
emmanuel-boamah@adam:/home/LEVEL_400$ rm csc2
rm: remove write-protected regular empty file 'csc2'?
emmanuel-boamah@adam:/home/LEVEL_400$ ls
csc2
emmanuel-boamah@adam:/home/LEVEL_400$ sudo rm csc2
emmanuel-boamah@adam:/home/LEVEL_400$ ls
emmanuel-boamah@adam:/home/LEVEL_400$ cd ..
emmanuel-boamah@adam:/home$ sudo rmdir LEVEL_400
emmanuel-boamah@adam:/home$ ls
emmanuel-boamah
emmanuel-boamah@adam:/home$ sudo touch csc1
emmanuel-boamah@adam:/home$ ls
csc1  emmanuel-boamah
emmanuel-boamah@adam:/home$ sudo chmod 755 csc1
emmanuel-boamah@adam:/home$ ls -l csc1
-rwxr-xr-x 1 root root 0 Feb  5 14:28 csc1
emmanuel-boamah@adam:/home$ sudo chmod 644 csc1
emmanuel-boamah@adam:/home$ ls -l csc1
-rw-r--r-- 1 root root 0 Feb  5 14:28 csc1
emmanuel-boamah@adam:/home$ sudo chmod 700 csc1
emmanuel-boamah@adam:/home$ ls -l csc1
-rwx------ 1 root root 0 Feb  5 14:28 csc1
emmanuel-boamah@adam:/home$ sudo chmod 444 csc1
emmanuel-boamah@adam:/home$ ls -l
total 4
-r--r--r--  1 root           root             0 Feb  5 14:28 csc1
drwxr-x--- 79 emmanuel-boamah emmanuel-boamah 4096 Feb  4 20:32 emmanuel-boamah
```

emmanuel-boamah@adam: /home/testdir

```
emmanuel-boamah@adam:/home$ sudo mkdir testdir
emmanuel-boamah@adam:/home$ ls
csc1  csc2  emmanuel-boamah  testdir
emmanuel-boamah@adam:/home$ ls -ld testdir
drwxr-xr-x 2 root root 4096 Feb  5 14:32 testdir
emmanuel-boamah@adam:/home$ sudo chmod 755 testdir
emmanuel-boamah@adam:/home$ ls -l
total 8
-r--r--r--  1 root           root             0 Feb  5 14:28 csc1
-rw-rw-r--  1 root           root             0 Feb  5 14:30 csc2
drwxr-x--- 79 emmanuel-boamah emmanuel-boamah 4096 Feb  4 20:32 emmanuel-boamah
drwxr-xr-x  2 root           root          4096 Feb  5 14:32 testdir
emmanuel-boamah@adam:/home$ ls -l testdir
total 0
emmanuel-boamah@adam:/home$ ls -ld testdir
drwxr-xr-x 2 root root 4096 Feb  5 14:32 testdir
emmanuel-boamah@adam:/home$ sudo chmod 700 testdir
emmanuel-boamah@adam:/home$ ls -ld testdir
drwx------ 2 root root 4096 Feb  5 14:32 testdir
emmanuel-boamah@adam:/home$ sudo chmod 711 testdir
emmanuel-boamah@adam:/home$ ls -ld testdir
drwx--x--x 2 root root 4096 Feb  5 14:32 testdir
emmanuel-boamah@adam:/home$ ls
csc1  csc2  emmanuel-boamah  testdir
emmanuel-boamah@adam:/home$ ls testdir
ls: cannot open directory 'testdir': Permission denied
emmanuel-boamah@adam:/home$ cd testdir
emmanuel-boamah@adam:/home/testdir$ cd ..
emmanuel-boamah@adam:/home$ cd testdir
```

```
emmanuel-boamah@adam:/home/testdir$ cat script.sh
#!/bin/bash
echo "hello this is my script"
emmanuel-boamah@adam:/home/testdir$ sudo chmod 750 script.sh
emmanuel-boamah@adam:/home/testdir$ ls -ld
drwx--x--x 2 root root 4096 Feb  5 14:37 .
emmanuel-boamah@adam:/home/testdir$ stat script.sh
  File: script.sh
  Size: 43          Blocks: 8          IO Block: 4096   regular file
Device: 8,4    Inode: 786437    Links: 1
Access: (0750/-rwxr-x---) Uid: (    0/    root)  Gid: (    0/    root)
Access: 2026-02-05 14:37:37.861917684 +0000
Modify: 2026-02-05 14:37:31.887918131 +0000
Change: 2026-02-05 14:38:35.111913399 +0000
 Birth: 2026-02-05 14:35:35.944926809 +0000
emmanuel-boamah@adam:/home/testdir$ .script.sh
.script.sh: command not found
emmanuel-boamah@adam:/home/testdir$ cd ..
emmanuel-boamah@adam:/home$ ./testdir/script.sh
bash: ./testdir/script.sh: Permission denied
emmanuel-boamah@adam:/home$ sudo ./testdir/script.sh
hello this is my script
emmanuel-boamah@adam:/home$ sudo chmod 754 testdir/script.sh
emmanuel-boamah@adam:/home$ ls -ld
drwxr-xr-x 4 root root 4096 Feb  5 14:32 .
emmanuel-boamah@adam:/home$ ls -l testdir/script.sh
-rwxr-xr-- 1 root root 43 Feb  5 14:37 testdir/script.sh
emmanuel-boamah@adam:/home$ sudo chmod 755 testdir/script.sh
emmanuel-boamah@adam:/home$ ls -l testdir/script.sh
```

```
 Birth: 2026-02-05 14:35:35.944926809 +0000
emmanuel-boamah@adam:/home/testdir$ .script.sh
.script.sh: command not found
emmanuel-boamah@adam:/home/testdir$ cd ..
emmanuel-boamah@adam:/home$ ./testdir/script.sh
bash: ./testdir/script.sh: Permission denied
emmanuel-boamah@adam:/home$ sudo ./testdir/script.sh
hello this is my script
emmanuel-boamah@adam:/home$ sudo chmod 754 testdir/script.sh
emmanuel-boamah@adam:/home$ ls -ld
drwxr-xr-x 4 root root 4096 Feb  5 14:32 .
emmanuel-boamah@adam:/home$ ls -l testdir/script.sh
-rwxr-xr-- 1 root root 43 Feb  5 14:37 testdir/script.sh
emmanuel-boamah@adam:/home$ sudo chmod 755 testdir/script.sh
emmanuel-boamah@adam:/home$ ls -l testdir/script.sh
-rwxr-xr-x 1 root root 43 Feb  5 14:37 testdir/script.sh
emmanuel-boamah@adam:/home$ find testdir --executable
find: unknown predicate `--executable'
emmanuel-boamah@adam:/home$ find testdir -executable
testdir
find: 'testdir': Permission denied
emmanuel-boamah@adam:/home$ sudo find testdir -executable
testdir
testdir/script.sh
emmanuel-boamah@adam:/home$ sudo find testdir -executable | wc -l
2
emmanuel-boamah@adam:/home$ ls -l testdir | grep "^[-d]" | awk '{print $l}'
ls: cannot open directory 'testdir': Permission denied
emmanuel-boamah@adam:/home$ sudo ls -l testdir | grep "^[-d]" | awk '{print $l}'
```