

```

brijesh@brijesh-GF75-Thin-9SCSR:~$ cd Desktop
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop$ echo "MAKING ALL DIRECTORIES AND FILES"
MAKING ALL DIRECTORIES AND FILES
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop$ mkdir Departments
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop$ cd Departments
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments$ mkdir COED ELECTRICAL MECHANICAL
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments$ cd COED
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments/COED$ mkdir UnixOS DataStructure
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments/COED$ cd UnixOS
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments/COED/UnixOS$ touch m1.c m2.c m3.c m4.c
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments/COED/UnixOS$ cd ../DataStructure
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments/COED/DataStructure$ touch c1.txt c2.txt c3.txt
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments/COED/DataStructure$ cd ../../ELECTRICAL
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments/ELECTRICAL$ mkdir LM ATTE CAEE
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments/ELECTRICAL$ cd ATTE/
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments/ELECTRICAL/ATTE$ touch e1.b e2.b e3.b
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments/ELECTRICAL/ATTE$ cd ../../MECHANICAL
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments/MECHANICAL$ mkdir DM HMT MP
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments/MECHANICAL$ cd DM/
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments/MECHANICAL/DM$ touch tt1.c
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments/MECHANICAL/DM$ touch tt2.c
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments/MECHANICAL/DM$ touch tp.c
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments/MECHANICAL/DM$ cd ../HMT/
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments/MECHANICAL/HMT$ touch p1.c p2.c pp3.c
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments/MECHANICAL/HMT$ cd ../../
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments$ tree

```

```

.
├── COED
│   ├── DataStructure
│   │   ├── c1.txt
│   │   ├── c2.txt
│   │   └── c3.txt
│   └── UnixOS
│       ├── m1.c
│       ├── m2.c
│       ├── m3.c
│       └── m4.c
├── ELECTRICAL
│   ├── ATTE
│   │   ├── e1.b
│   │   ├── e2.b
│   │   └── e3.b
│   ├── CAEE
│   └── LM
└── MECHANICAL
    ├── DM
    │   ├── tt1.c
    │   ├── tp.c
    │   └── tt2.c
    ├── HMT
    │   ├── p1.c
    │   ├── p2.c
    │   └── pp3.c
    └── MP

```

11 directories, 16 files

```

brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments$ echo "QUESTION 1"

```

QUESTION 1

```

brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments$ tree

```

```

.
├── COED
│   ├── DataStructure
│   │   ├── c1.txt
│   │   ├── c2.txt
│   │   └── c3.txt
│   └── UnixOS
│       ├── m1.c
│       ├── m2.c
│       ├── m3.c
│       └── m4.c
├── ELECTRICAL
│   ├── ATTE
│   │   ├── e1.b

```

```
├── HMT
│   ├── p1.c
│   ├── p2.c
│   └── pp3.c
└── MP
```

11 directories, 16 files

```
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments$ echo "QUESTION 2"
```

QUESTION 2

```
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments$ cp COED/Unix0s/m1.c MECHANICAL/DM/m1copy.c
```

```
cp: cannot stat 'COED/Unix0s/m1.c': No such file or directory
```

```
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments$ tree
```

```
├── COED
│   ├── DataStructure
│   │   ├── c1.txt
│   │   ├── c2.txt
│   │   └── c3.txt
│   └── Unix0S
│       ├── m1.c
│       ├── m2.c
│       ├── m3.c
│       └── m4.c
├── ELECTRICAL
│   ├── ATTE
│   │   ├── e1.b
│   │   ├── e2.b
│   │   └── e3.b
│   ├── CAEE
│   └── LM
├── MECHANICAL
│   ├── DM
│   │   ├── t12.c
│   │   ├── tp.c
│   │   └── tt1.c
│   ├── HMT
│   │   ├── p1.c
│   │   ├── p2.c
│   │   └── pp3.c
│   └── MP
```

11 directories, 16 files

```
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments$ echo "QUESTION 3"
```

QUESTION 3

```
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments$ cp ../../ELECTRICAL/ATTE/e2.b ../../ELECTRICAL/L
```

```
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments$ tree
```

```
├── COED
│   ├── DataStructure
│   │   ├── c1.txt
│   │   ├── c2.txt
│   │   └── c3.txt
│   └── Unix0S
│       ├── m1.c
│       ├── m2.c
│       ├── m3.c
│       └── m4.c
├── ELECTRICAL
│   ├── ATTE
│   │   ├── e1.b
│   │   ├── e2.b
│   │   └── e3.b
│   ├── CAEE
│   └── LM
├── MECHANICAL
│   ├── DM
│   │   ├── t12.c
│   │   ├── tp.c
│   │   └── tt1.c
│   ├── HMT
│   │   ├── p1.c
│   │   ├── p2.c
│   │   └── pp3.c
│   └── MP
```

```
.
├── COED
│   ├── DataStructure
│   │   ├── c1.txt
│   │   ├── c2.txt
│   │   └── c3.txt
│   └── UnixOS
│       ├── m1.c
│       ├── m2.c
│       ├── m3.c
│       └── m4.c
├── ELECTRICAL
│   ├── ATTE
│   │   ├── e1.b
│   │   ├── e2.b
│   │   └── e3.b
│   ├── CAEE
│   │   └── LM
│   └── MECHANICAL
│       ├── DM
│       │   ├── t12.c
│       │   ├── tp.c
│       │   └── tt1.c
│       ├── HMT
│       │   ├── p1.c
│       │   ├── p2.c
│       │   └── pp3.c
│       └── MP
```

11 directories, 16 files

```
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments$ echo "QUESTION 5"
```

QUESTION 5

```
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments$ cp COED/*/c*.* ELECTRICAL/CAEE/
```

```
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments$ tree
```

```
.
├── COED
│   ├── DataStructure
│   │   ├── c1.txt
│   │   ├── c2.txt
│   │   └── c3.txt
│   └── UnixOS
│       ├── m1.c
│       ├── m2.c
│       ├── m3.c
│       └── m4.c
├── ELECTRICAL
│   ├── ATTE
│   │   ├── e1.b
│   │   ├── e2.b
│   │   └── e3.b
│   ├── CAEE
│   │   ├── c1.txt
│   │   ├── c2.txt
│   │   └── c3.txt
│   └── LM
└── MECHANICAL
    ├── DM
    │   ├── t12.c
    │   ├── tp.c
    │   └── tt1.c
    ├── HMT
    │   ├── p1.c
    │   ├── p2.c
    │   └── pp3.c
    └── MP
```

11 directories, 19 files

```
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments$ echo "QUESTION 6"
```

QUESTION 6

```
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments$ mv MECHANICAL/DM/tp.c MECHANICAL/DM/ctp.c
```

```
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments$ tree
```

```
.
├── COED
│   ├── DataStructure
│   │   ├── c1.txt
```

```
.
├── ATTE
│   ├── e1.b
│   ├── e2.b
│   └── e3.b
├── CAEE
│   ├── c1.txt
│   ├── c2.txt
│   └── c3.txt
├── LM
├── MECHANICAL
│   ├── DM
│   │   ├── ctp.c
│   │   ├── t12.c
│   │   └── ttl.c
│   ├── HMT
│   │   ├── p1.c
│   │   ├── p2.c
│   │   └── pp3.c
│   └── MP
```

11 directories, 19 files

```
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments$ echo "QUESTION 7"
```

QUESTION 7

```
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments$ mv ELECTRICAL/ATTE/e1.b ELECTRICAL/ATTE/e1.c
```

```
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments$ tree
```

```
.
├── COED
│   ├── DataStructure
│   │   ├── c1.txt
│   │   ├── c2.txt
│   │   └── c3.txt
│   └── UnixOS
│       ├── m1.c
│       ├── m2.c
│       ├── m3.c
│       └── m4.c
├── ELECTRICAL
│   ├── ATTE
│   │   ├── e1.c
│   │   ├── e2.b
│   │   └── e3.b
│   ├── CAEE
│   │   ├── c1.txt
│   │   ├── c2.txt
│   │   └── c3.txt
│   └── LM
├── MECHANICAL
│   ├── DM
│   │   ├── ctp.c
│   │   ├── t12.c
│   │   └── ttl.c
│   ├── HMT
│   │   ├── p1.c
│   │   ├── p2.c
│   │   └── pp3.c
│   └── MP
```

11 directories, 19 files

```
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments$ echo "QUESTION 8"
```

QUESTION 8

```
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments$ rm MECHANICAL/HMT/?p*.*
```

```
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments$ tree
```

```
.
├── COED
│   ├── DataStructure
│   │   ├── c1.txt
│   │   ├── c2.txt
│   │   └── c3.txt
│   └── UnixOS
│       ├── m1.c
│       ├── m2.c
│       ├── m3.c
│       └── m4.c
├── ELECTRICAL
```

```
├── LM
└── MECHANICAL
    ├── DM
    │   ├── ctp.c
    │   ├── t12.c
    │   └── tt1.c
    ├── HMT
    │   ├── p1.c
    │   └── p2.c
    └── MP
```

11 directories, 18 files

```
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments$ echo "QUESTION 9"
```

QUESTION 9

```
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments$ cd ELECTRICAL
```

```
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments/ELECTRICAL$ rm ../MECHANICAL/DM/m1.c
```

```
rm: cannot remove '../MECHANICAL/DM/m1.c': No such file or directory
```

```
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments/ELECTRICAL$ cd ../
```

```
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments$ tree
```

```
├── COED
│   ├── DataStructure
│   │   ├── c1.txt
│   │   ├── c2.txt
│   │   └── c3.txt
│   └── UnixOS
│       ├── m1.c
│       ├── m2.c
│       ├── m3.c
│       └── m4.c
├── ELECTRICAL
│   ├── ATTE
│   │   ├── e1.c
│   │   ├── e2.b
│   │   └── e3.b
│   ├── CAEE
│   │   ├── c1.txt
│   │   ├── c2.txt
│   │   └── c3.txt
│   ├── LM
│   └── MECHANICAL
│       ├── DM
│       │   ├── ctp.c
│       │   ├── t12.c
│       │   └── tt1.c
│       ├── HMT
│       │   ├── p1.c
│       │   └── p2.c
│       └── MP
```

11 directories, 18 files

```
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments$ echo "QUESTION 10"
```

QUESTION 10

```
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments$ cd MECHANICAL
```

```
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments/MECHANICAL$ rm ../COED/UnixOS/??.*
```

```
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments/MECHANICAL$ cd ../
```

```
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments$ tree
```

```
├── COED
│   ├── DataStructure
│   │   ├── c1.txt
│   │   ├── c2.txt
│   │   └── c3.txt
│   └── UnixOS
├── ELECTRICAL
│   ├── ATTE
│   │   ├── e1.c
│   │   ├── e2.b
│   │   └── e3.b
│   ├── CAEE
│   │   ├── c1.txt
│   │   ├── c2.txt
│   │   └── c3.txt
│   ├── LM
│   └── MECHANICAL
```

└─ MP

11 directories, 14 files

brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments\$ echo "QUESTION 11"

QUESTION 11

brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments\$ cd MECHANICAL/MP

brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments/MECHANICAL/MP\$ pwd

/home/brijesh/Desktop/Departments/MECHANICAL/MP

brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments/MECHANICAL/MP\$ cd ../../

brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments\$ echo "QUESTION 13"

QUESTION 13

brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments\$ rm -r COED/UnixOS

brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments\$ tree

```
.
├── COED
│   └── DataStructure
│       ├── c1.txt
│       ├── c2.txt
│       └── c3.txt
├── ELECTRICAL
│   ├── ATTE
│   │   ├── e1.c
│   │   ├── e2.b
│   │   └── e3.b
│   ├── CAEE
│   │   ├── c1.txt
│   │   ├── c2.txt
│   │   └── c3.txt
│   └── LM
├── MECHANICAL
│   ├── DM
│   │   ├── ctp.c
│   │   ├── t12.c
│   │   └── ttl.c
│   ├── HMT
│   │   ├── p1.c
│   │   └── p2.c
│   └── MP
```

10 directories, 14 files

brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments\$ echo "QUESTION 14"

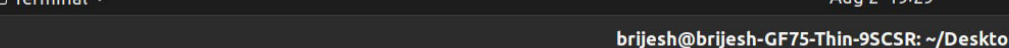
QUESTION 14

brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments\$ date +"DATE : %F and TIME : %T"

DATE : 2021-08-03 and TIME : 23:38:00

brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments\$

QUESTION 15:



The screenshot shows a terminal window with a dark background. The title bar at the top reads "Activities" and "Terminal". The top right corner displays the date and time "Aug 2 19:29". The terminal prompt is "brijesh@brijesh-GF75-Thin-9SCSR: ~/Desktop/Departments". The user has entered the command "less COED/DataStructure/c3.txt". The terminal output shows the first line of the file: "brijesh@brijesh-GF75-Thin-9SCSR: ~/Desktop/Departments\$ shift + z + z to end". The terminal window has a sidebar on the left with icons for Activities, Terminal, and a file manager.

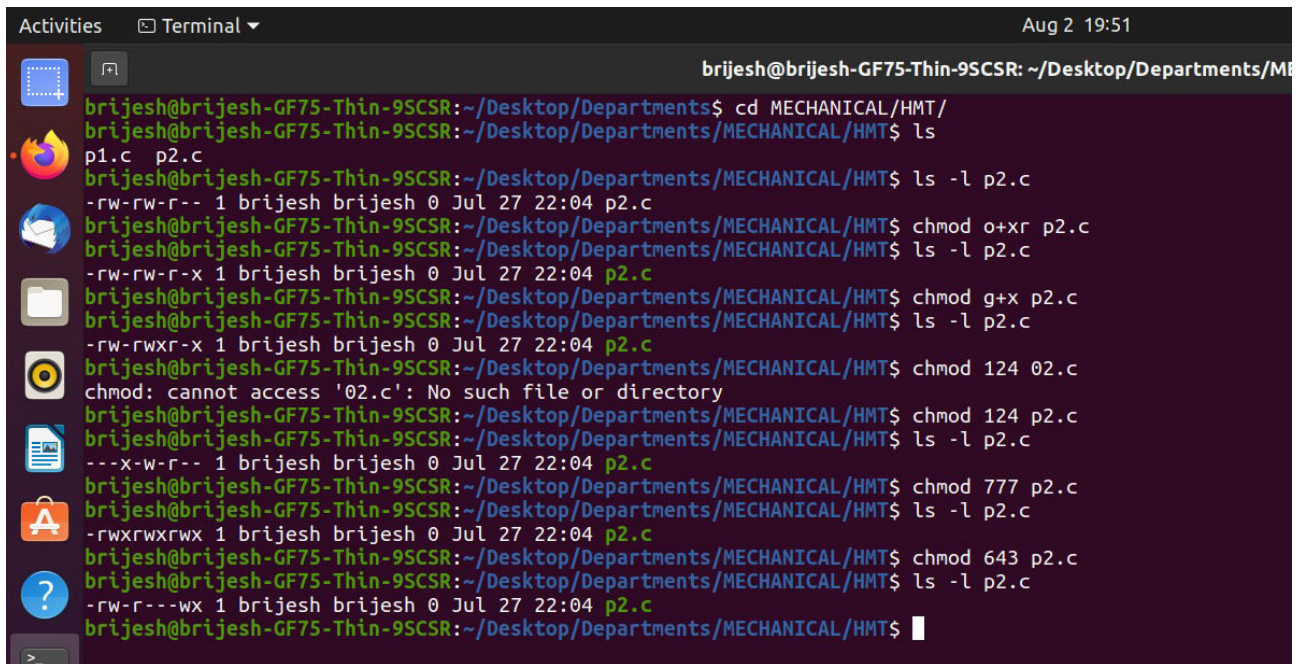
```
Activities Terminal Aug 2 19:29
brijesh@brijesh-GF75-Thin-9SCSR: ~/Desktop/Departments
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments$ less COED/DataStructure/c3.txt
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments$ shift + z + z to end
```



The screenshot shows a terminal window with a dark purple background. The title bar at the top reads "Activities" on the left and "Aug 2 19:30" on the right. Below the title bar, the terminal prompt shows the user "brijesh" at host "brijesh-GF75-Thin-9SCSR" in the directory "~/Desktop/Departments". The main content of the terminal is a single line of text: "COED/DataStructure/c3.txt (END)", which is highlighted with a white selection box. On the left side of the terminal window, there is a vertical dock containing icons for the Dash application, a file manager, Firefox, and a mail client.

A screenshot of a Linux desktop environment. At the top, a dark grey header bar contains the text "Activities" on the left, "Terminal" with a dropdown arrow in the center, and the date and time "Aug 2 19:30" on the right. Below the header, a dark purple desktop background is visible. On the left side, there is a vertical sidebar with several application icons: a blue square icon with a white grid, a Firefox icon, a blue circular icon with a white document, a file manager icon, a yellow circular icon with a black center, a blue document icon, an orange application icon, a blue circular icon with a white question mark, a blue document icon, and a terminal icon. The terminal window is open, showing a black background with a white prompt character and a cursor. The terminal's title bar reads "brijesh@brijesh-GF75-Thin-9SCSR: ~/Desktop/Departments". At the bottom left, there is a small grid of icons and a button labeled "(END)".

QUESTION 16:

A terminal window titled 'brijesh@brijesh-GF75-Thin-9SCSR: ~/Desktop/Departments/M...' displays a series of commands and their outputs. The user navigates to the directory ~/Desktop/Departments/MECHANICAL/HMT and lists the file p2.c. They then use 'ls -l' to view its permissions (-rw-rw-r--), followed by 'chmod o+rx p2.c' to add execute permissions for others. Subsequent 'ls -l' shows the permissions as -rw-rw-r-x. Then, 'chmod g+x p2.c' is used to add execute permissions for the group, resulting in -rw-rwxr-x. An attempt to run 'chmod 124 02.c' fails with an error. Finally, 'chmod 777 p2.c' is used to grant all permissions, and a final 'ls -l' shows the permissions as -rwxrwxrwx.

```
brijesh@brijesh-GF75-Thin-9SCSR: ~/Desktop/Departments/M...
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments$ cd MECHANICAL/HMT/
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments/MECHANICAL/HMT$ ls
p1.c  p2.c
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments/MECHANICAL/HMT$ ls -l p2.c
-rw-rw-r-- 1 brijesh brijesh 0 Jul 27 22:04 p2.c
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments/MECHANICAL/HMT$ chmod o+rx p2.c
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments/MECHANICAL/HMT$ ls -l p2.c
-rw-rw-r-x 1 brijesh brijesh 0 Jul 27 22:04 p2.c
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments/MECHANICAL/HMT$ chmod g+x p2.c
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments/MECHANICAL/HMT$ ls -l p2.c
-rw-rwxr-x 1 brijesh brijesh 0 Jul 27 22:04 p2.c
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments/MECHANICAL/HMT$ chmod 124 02.c
chmod: cannot access '02.c': No such file or directory
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments/MECHANICAL/HMT$ chmod 124 p2.c
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments/MECHANICAL/HMT$ ls -l p2.c
---x-w-r-- 1 brijesh brijesh 0 Jul 27 22:04 p2.c
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments/MECHANICAL/HMT$ chmod 777 p2.c
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments/MECHANICAL/HMT$ ls -l p2.c
-rwxrwxrwx 1 brijesh brijesh 0 Jul 27 22:04 p2.c
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments/MECHANICAL/HMT$ chmod 643 p2.c
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments/MECHANICAL/HMT$ ls -l p2.c
-rw-r---wx 1 brijesh brijesh 0 Jul 27 22:04 p2.c
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments/MECHANICAL/HMT$
```


QUESTION 17 AND 18:

```
Activities Terminal Aug 3 23:53
brijesh@brijesh-GF75-Thin-9SCSR: ~/Desktop/Departments

brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments$ echo "QUESTION 17"
QUESTION 17
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments$ ls MECHANICAL/MP/
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments$ echo "no files in MP directory as shown below"
no files in MP directory as shown below
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments$ tree
.
├── COED
│   └── DataStructure
│       ├── c1.txt
│       ├── c2.txt
│       └── c3.txt
├── ELECTRICAL
│   ├── ATTE
│   │   ├── e1.c
│   │   ├── e2.b
│   │   └── e3.b
│   ├── CAEE
│   │   ├── c1.txt
│   │   ├── c2.txt
│   │   └── c3.txt
│   └── LM
├── MECHANICAL
│   ├── DM
│   │   ├── ctp.c
│   │   ├── t12.c
│   │   └── tt1.c
│   ├── HMT
│   │   ├── p1.c
│   │   └── p2.c
│   └── MP
└── 10 directories, 14 files

brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments$ echo "QUESTION 18"
QUESTION 18
brijesh@brijesh-GF75-Thin-9SCSR:~/Desktop/Departments$ clear
```