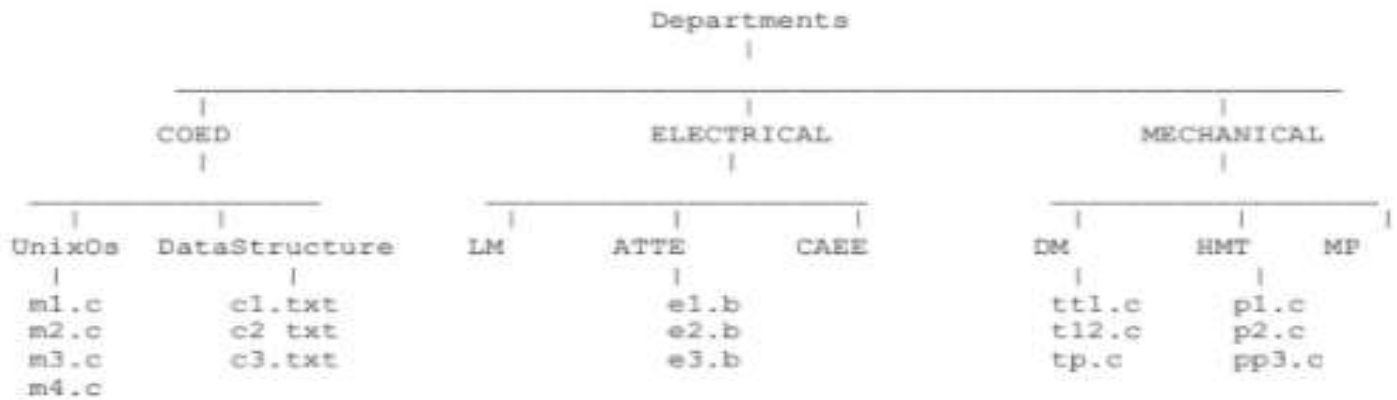# OPERATING SYSTEMS
## Assignment 1
## SOURABH PATEL
## U19CS082

1. Create the directory and files for the following structure and write single Unix command for each given instruction:

```
                                  Departments
                                       |
         _____
         |                             |                              |
       COED                        ELECTRICAL                     MECHANICAL
         |                             |                              |
    _____            _____            _____
    |           |            |         |         |            |       |       |
 UnixOs  DataStructure      LM       ATTE      CAEE          DM      HMT     MP
    |           |                      |                      |       |
  m1.c       c1.txt                  e1.b                   tt1.c   p1.c
  m2.c       c2 txt                  e2.b                   t12.c   p2.c
  m3.c       c3.txt                  e3.b                   tp.c    pp3.c
  m4.c
```

**mkdir departments**
**cd departments**
**mkdir code**
**mkdir electrical**
**mkdir mechanical**
**cd code**
**mkdir unixos**
**mkdir datastructure**
**cd unixos**
**touch m1.c**
**touch m2.c**
**touch m3.c**
**cd ..**
**cd datastructure**
**touch c1.txt**
**touch c2.txt**
**touch c3.txt**
**cd ../..**
**cd electrical**
**mkdir lm**
**mkdir atte**
**mkdir caee**
**cd atte**
**touch e1.c**
**touch e2.c**
**touch e3.c**
**cd ../../mechanical**

```
mkdir dm
mkdir hmt
mkdir mp
cd dm
touch tt1.c
touch t12.c
touch tp.c
cd ../hmt
touch p1.c
touch p2.c
touch pp3.c
```

**1. Display the entire structure.**

```
ls -R
```

**OUTPUT:-**

```
departments

./departments:
code
electrical
mechanical

./departments/code:
datastructure
unixos

./departments/code/datastructure:
c1.txt
c2.txt
c3.txt

./departments/code/unixos:
m1.c
m2.c
m3.c

./departments/electrical:
atte
caee
```

```
lm

./departments/electrical/atte:
e1.c
e2.c
e3.c

./departments/electrical/caee:

./departments/electrical/lm:

./departments/mechanical:
dm
hmt
mp

./departments/mechanical/dm:
t12.c
tp.c
tt1.c

./departments/mechanical/hmt:
p1.c
p2.c
pp3.c

./departments/mechanical/mp:
```

**2. Assume that you are in Departments directory. Write a command to copy m1.c of UnixOs directory to DM directory.**

```
cp ./code/unixos/m1.c mechanical/dm/
```

```
 ./mechanical/dm:
 m1.c
 t12.c
 tp.c
 tt1.c
```

**3. Assume that you are in Data Structure directory. Write a command to copy file e2 from ATTE to LM .**

```
cp ././../electrical/atte/e2.c ../../electrical/lm/
```

```
./departments/electrical/lm:
e2.c
```

**4. Assume that you are in HMT directory. Copy all files of HMT directory, having 3 characters filename, to MP directory.**

```
cp ./???*.* ../mp/
```

```
$ ls ../mp
pp3.c
```

**5. Assume that you are in Departments directory. Copy all files of COED directory having first character "c" in name to CAEE directory.**

```
cp ./code/*/c*.* ./electrical/caee
```

```
./electrical/caee:
c1.txt   c2.txt   c3.txt
```

**6. Change the name of file tp.c of to ctp.c.**

```
$ mv dm/ctp.c dm/tp.c
```

```
$ ls dm
ctp.c   t12.c   tt1.c
```

**7. Rename e1.b to e1.c.**

```
$ mv e1.c e1.b

$ ls
e1.b   e2.c   e3.c
```

**8. Delete file having second char. p of HMT directory.**

```
$ rm ?p*.*

$ ls
p1.c   p2.c
```

**9. Assume that you are in ELECTRICAL directory delete m1.c of DM directory.**

```
$ rm ./../mechanical/dm/m1.c

$ ls ./../mechanical/dm/
t12.c   tp.c   tt1.c
```

**10.Assume that you are in MECHANICAL directory. Delete all files of Unix Os**

**directory having 2 characters in filename.**

```
$ rm ./../code/unixos/??.*
$ ls ./../code/unixos/
```

**11.You are in MP. Directory, display the current directory path.**

```
$ pwd
$ pwd
/home/karan/departments/mechanical/mp
```

**13.Remove UnixOs directory**

```
$ rmdir unixos/
$ ls
datastructure
```

**14.Display current date and time.**

```
$ date
```

```
$ date
Mon Jul 26 22:31:53 IST 2021
```

**15. Display content of file c3 with page break.**

```
$ cat c3.txt|more
```

```
$ cat c3.txt|more
 Hello sir/mam
I am karan raj jayswal
thank you
```

**16. Change the permissions of file p2.c to different modes possible.**

```
$ chmod a+x p2.c
```

```
$ ls -l
total 0
-rw-r--r-- 1 karan karan 0 Jul 26 20:48 p1.c
-rwxr--r-- 1 karan karan 0 Jul 26 20:48 p2.c

$ chmod a+x p2.c
```

```
$ ls -l
total 0
-rw-r--r-- 1 karan karan 0 Jul 26 20:48 p1.c
-rwxr-xr-x 1 karan karan 0 Jul 26 20:48 p2.c
```

**17.You are in root directory, display the all filename of MP directory.**

```
$ ls departments/mechanical/mp/
```

```
$ ls departments/mechanical/mp/
pp3.c
```

**18.Clear all the screen on which u work**

```
$ clear
```

```
$
```