Create Directory:

Use the mkdir

What can be done:

Check version

```
IoTdev$ mkdir --version


mkdir (GNU coreutils) 8.30
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Written by David MacKenzie.
```

details about a command etc.

```
man <commandname>

man mkdir

mkdir --help
```

```
IoTdev$ mkdir 2022-sept
IoTdev$ cd 2022-sept/
IoTdev$ mkdir practice -v
mkdir: created directory 'practice'

IoTdev$ pwd
/home/rohit/Embedded-Linux-Pro/2022-sept
IoTdev$ mkdir -p a/b/c/d -v
mkdir: created directory 'a'
mkdir: created directory 'a/b'
mkdir: created directory 'a/b/c'
mkdir: created directory 'a/b/c/d'
```

Remove a directory

use command : rmdir

```
IoTdev$ rmdir practice/
IoTdev$ rmdir -p a/b/c/d/ -v
rmdir: removing directory, 'a/b/c/d/'
rmdir: removing directory, 'a/b/c'
rmdir: removing directory, 'a/b'
rmdir: removing directory, 'a'
```

How to create an empty file --> use touch command

```
IoTdev$ touch newfile.txt
IoTdev$ ls
a  newfile.txt
```

To print the permission of a file

```
IoTdev$ ls -l newfile.txt
-rw-rw-r-- 1 rohit rohit 0 Oct 28 19:44 newfile.txt
```

- r - read
- w - write
- x - execute

A file is managed by three entities:

1. user/owner
2. Group
3. Others What can be at first place

d/-/s/p/

- d -> directory
-    o -> file
- l -> symlink/links
- p -> pipe
- s -> socket

--- (user)rwx --- (group)rwx ---(others)rwx

```
IoTdev$ ls -l
total 4
```

```
drwxrwxr-x 2 rohit rohit 4096 Oct 28 19:43 a
-rw-rw-r-- 1 rohit rohit    0 Oct 28 19:44 newfile.txt

mkdir -m a=rwx test
```

Assignment:

1. create a directory elx2022 inside home directory (~)
2. under this create a directory m/n/o/p/i [with one command]
3. under m/n create a empty file n.txt
4. create an empty file inside p as p.md
5. create a directory under p as p.1
6. from p go to m and create a dir m.1 with rwx permission to user,group and others

Create multiple empty files/dirs in one go

```
touch {1.10}.txt

mkdir {1..10}

mkdir {1..10}-diot
```

```
IoTdev$ touch {1..10}.txt
IoTdev$ ls
10.txt  2.txt  4.txt  6.txt  8.txt  a            test
1.txt   3.txt  5.txt  7.txt  9.txt  newfile.txt
IoTdev$ mkdir {1..10}
IoTdev$ ls
1       2      4      6      8      a
10      2.txt  4.txt  6.txt  8.txt  newfile.txt
10.txt  3      5      7      9      test
1.txt   3.txt  5.txt  7.txt  9.txt
IoTdev$ mkdir {1..10}-diot
IoTdev$ ls
1        2       4       6       8       a
10       2-diot  4-diot  6-diot  8-diot  newfile.txt
10-diot  2.txt   4.txt   6.txt   8.txt   test
10.txt   3       5       7       9
1-diot   3-diot  5-diot  7-diot  9-diot
1.txt    3.txt   5.txt   7.txt   9.txt
```

To remove a file -- rm filename>

rm 1.txt

Delete squence of file/dir(s)

```
IoTdev$ rmdir {1..10}
IoTdev$ ls
10-diot  2-diot  4-diot  6-diot  8-diot  a
10.txt   2.txt   4.txt   6.txt   8.txt   newfile.txt
1-diot   3-diot  5-diot  7-diot  9-diot  test
1.txt    3.txt   5.txt   7.txt   9.txt
IoTdev$ rmdir {1..10}-diot
IoTdev$ ls
10.txt  2.txt  4.txt  6.txt  8.txt  a           test
1.txt   3.txt  5.txt  7.txt  9.txt  newfile.txt
IoTdev$ rm {1..10}.txt
IoTdev$ ls
a  newfile.txt  test
```

You want prompt to ask before deleting a file

```
IoTdev$ rm -i 1.txt
rm: remove regular empty file '1.txt'? y
IoTdev$ rm -i 2.txt
rm: remove regular empty file '2.txt'? n
IoTdev$ ls
2.txt  a  newfile.txt  test
```

Change file permissions :

```
chmod
```

- 4 - read
- 2 - write
- 1 - execute

max possible value - 7

min - 0

rwx - 7
rw - 6
r - 4
rx - 5
wx - 3

```
ugo -> 777
```

Agenda: to give readwrite permission to all for file 2.txt

```
IoTdev$ ls -l 2.txt
-rw-rw-r-- 1 rohit rohit 0 Oct 28 20:43 2.txt
IoTdev$ chmod 666 2.txt
IoTdev$ ls -l 2.txt
-rw-rw-rw- 1 rohit rohit 0 Oct 28 20:43 2.txt
```

Assignment 2: [go -- group and other]

Create a file and give permisions

1. test1.txt read only to user, go no permissions

2. test2.txt read and write to user, go no permissions

3. test3.txt read only to user, rw permissions to group and o - np (no permission)

4. test4.txt np to user, rwx to g and read permissions to others

5. test5.txt rw to all

6. test6.txt rwx to all

7. test7. txt readonly to all

   touch test{1..7}.txt

```
IoTdev$ touch 7.txt && chmod 444 7.txt
IoTdev$ ls
2.txt  7.txt  a  newfile.txt  test
IoTdev$ ls -l 7.txt
-r--r--r-- 1 rohit rohit 0 Oct 28 21:07 7.txt
```

handle with care - remove forefully

```
rm -rf <filename>
rm -rf <dirname>
```

```
rm -rf test/
```

```
IoTdev$ mkdir -p 1/2/3/4/5/6/7
IoTdev$ rm -rf 1/*
IoTdev$ pwd
/home/rohit/Embedded-Linux-Pro/2022-sept
IoTdev$ ls
1  a  p
IoTdev$ rm -rf *
IoTdev$ ls
IoTdev$ pwd
/home/rohit/Embedded-Linux-Pro/2022-sept
```

Write some content to file using echo - if file doesn't exist will be created
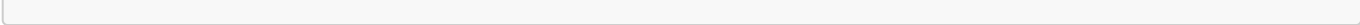
```
echo "Content" > 1.txt
```

Append

```
echo "new content" >> 1.txt
```

Display content of the file

```
cat <filename>
```

```
IoTdev$ echo "Hello from IoT" > iot.txt
IoTdev$ ls
iot.txt
IoTdev$ cat iot.txt
Hello from IoT
IoTdev$ echo "IoT is important domain" >> iot.txt
IoTdev$ cat iot.txt
Hello from IoT
IoT is important domain
IoTdev$ echo "PGDIOT-CDAC-ACTS" > iot.txt
IoTdev$ cat iot.txt
PGDIOT-CDAC-ACTS
```