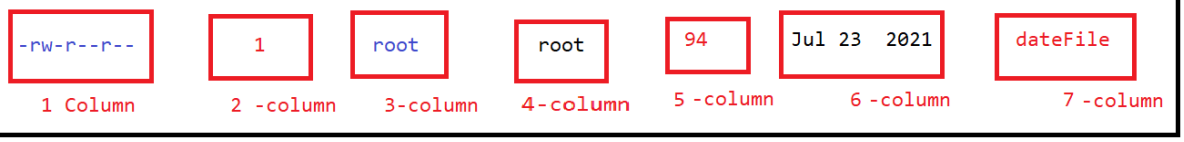
chmod command

when we execute ls -l command then we will get list of files with long information



1 column -> This column give information about file type and file permission

2 column -> This column give information about number of blocks allocated to the file

3 column -> This column give information about owner (Who has created file?)

4 column -> This cloumn give information about group (File belongs which group)

5 column -> This column give information about file size

6 column -> This column gives information about created/modified time of file

7 column -> File name

in column 1 we have total 10 characters

-rw-r--r--

Out of 10 characters first character give information about file type

i) - indicate it is a normal file

ii) d indicate it is a directory

iii) c indicate it is a character file

iv) l indicate it is a soft link file

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remaining 9 characters give information about file permission

-> We have 3 types of permission and to denote the permission we have characters

r -> indicate read permission

w -> indicate write permission

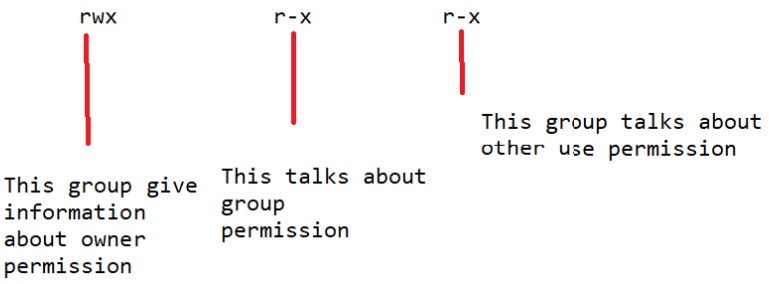
x -> indicate execute permission

rwxr-xr-x These total 9 characters are divided into group of 3 characters

rwx r-x r-x

in every group these characters has sequence rwx and we have to follow this sequence compulsory

if particular position character is absent then system use hypen (-)



How to change file permission?

To change file permission we have to use **chmod** command

chmod stands for change mode

As we know that we have 3 permission like read , write and execute

Operation	symbol	Numeric value
Read	r	4
Write	w	2
Execute	x	1

To change permission we need to below syntax

chmod numeric_value file_name

Here we have to specify numeric value in 3 digit

First digit is for owner permission

Second digit is for group permission

Third digit is for other user permission

Suppose we have to give read , write and execute permission for owner

4+2+1 => 7

Suppose we have to give read, write and execute permission for group

4+2+1 => 7

Suppose we have to give read, write and execute permission for other user

4+2+1 => 7

ones we get digit for owner, group and other user then use them in command syntax

```
chmod 777 File_name
```

Example 2:

suppose owner has to give read and execute permission
4+0+1 => 5

Suppose group has to give read and write permission

4+2 => 6

suppose other user has to give only write permission

0+2+0 => 2

then chmod command will become

chmod 562 File_name

Example 3:

chomd 175 F1.txt

175 indicate
owner has only execute permission
group has read ,write and execute permission
other user has read and execute permission

Example 4

chmod 345 F1.txt

Here 345 indicate
write and execute permission are for owner
only read permission for group
read and execute permission for other users

Example 5

```
chmod 605 F1.txt
```

owner -> read and write permission
other -> read and execute permission
group -> no permission permission

Example

```
chmod 834 F1.txt
```

when we try to execute above command we will get an error because 8 is not valid permission number