



### 1. TYPES OF PERMISSIONS

### 2. WHO HAS THESE PERMISSIONS

### 3. HOW TO CHECK THE PERMISSION

### 4. HOW TO CHANGE PERMISSIONS

- can give the access as diff. users  
 - add the users into a group, & give the permissions to the group

#### 1. TYPES OF PERMISSIONS



(Alphabetical Representation)

##### 1. read

-- viewing the content of the file.  
 -- denoted by 'r'.

##### 2. write

-- edit/modify the content of the file.  
 -- denoted by 'w'.

##### 3. execute

-- running the files as a program.  
 -- denoted by 'x'.

#### a.java

read, write & execute → rwx  
 read, write → rw-  
 read → r--  
 write, execute → -wx  
 write → -w-

(Numerical Representation)

1. Read → r → 4
2. Write → w → 2
3. Execute → x → 1

#### a.java

read, write & execute → rwx → 421 → 7  
 read, write → rw- → 420 → 6  
 read → r-- → 400 → 4  
 write, execute → -wx → 021 → 3  
 write → -w- → 020 → 2

read, write & execute → rwx → 421 → 7

r w x

4+2+1 → 7

specify the permission

read → r--

400 → 4

write, execute → -wx

021 → 3

read, write → rw-

420 → 6

specify the permission

5 → 401 → r-x

#### 2. WHO HAS THESE PERMISSIONS

-- Classifies the types of users for permissions/access to a particular file.  
 -- Users have 3 categories:

##### i. Owner/User:

-- The user who has created the file.  
 -- Has the ownership of the file.  
 -- denoted by 'u'.

##### ii. Group:

-- All the users with common file permissions.  
 -- denoted by 'g'.

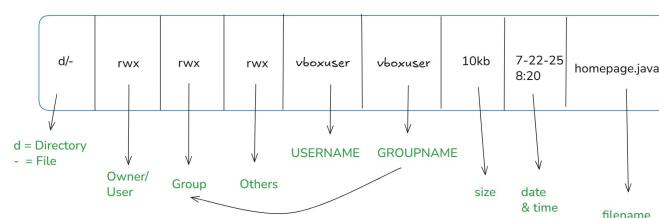
##### iii. Others:

-- All the users who does not belong to the 'OWNER' or 'GROUP'.  
 -- denoted by 'o'.

→ Any file/directory will have all the permissions available for all kind of user category.

#### 3. HOW TO CHECK PERMISSIONS:

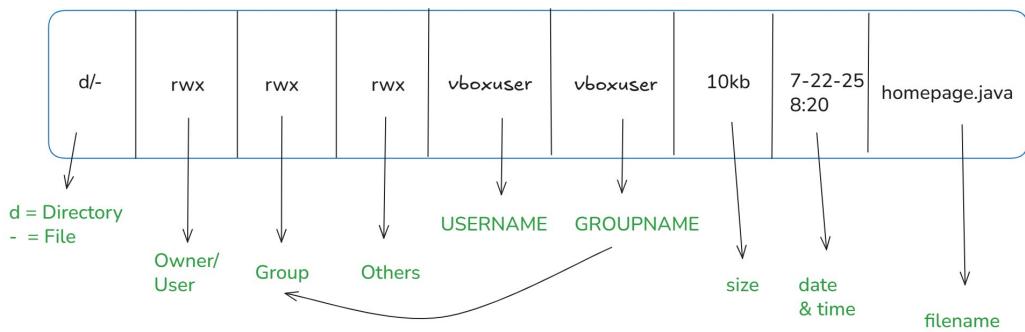
>> ls -l (long listing format)



-- Default permission for a file: r w|r w|r--

### 3. HOW TO CHECK PERMISSIONS:

>> ls -l (long listing format)



-- Default permission for a file: r w- | r w- | r--

### 4. HOW TO CHANGE PERMISSIONS:

Add  
(+)  
Remove  
(-)

>> chmod permission filename

demo.txt

Default ← [r w- r w- r--]  
permission of a file

-> To give/add execute permission to owner/user: chmod utx demo.txt

↓  
r w x r w - r --

- Type of user
- Action
- Type of permission

-> To take away/remove execute permission from owner/user: chmod u-x demo.txt

↓  
r w x r w - r --

-> To give write & execute permission to others: chmod otx demo.txt

↓  
r w x r w - r w x

-> To give write permission to group: chmod gtx demo.txt

↓  
r w x r w x r w x

-> To change it back to default permission of the file: chmod u-x,g-x,o-wx demo.txt

↓  
r w - r w - r --