

Linux AI Lab3 Ahmed Abd-Elsalam Muhammed Afify

Report about what I have experienced in this assignment:

1) *To create a directory and set read only permission for owner:*

```
[ahmed@localhost ~]$ mkdir -m 400 myteam
```

Output:

```
dr-----. 2 ahmed ahmed  6 May 7 10:04 myteam
```

2) *Changing the user:*

```
[ahmed@localhost ~]$ sudo su islam
```

3) *Trying to access the folder:*

```
[islam@localhost ahmed]$ cd myteam
```

Output:

```
bash: cd: myteam: Permission denied
```

4)

a) Changing directory permissions:

```
[ahmed@localhost ~]$ chmod u+w,g+wx,o+x myteam
```

Output:

```
drw--wx--x. 2 ahmed ahmed  6 May 7 10:04 myteam
```

second way:

```
[ahmed@localhost ~]$ chmod 631 myteam
```

Output:

```
drw--wx--x. 2 ahmed ahmed  6 May 7 10:04 myteam
```

b) To change the default permissions:

```
[ahmed@localhost ~]$ umask 631
```

c) The max permission:

- File: (666)
- Directory: (777)

They are reached by using: [ahmed@localhost ~]\$ umask 000

5) *Execute:*

- **Folder:** Actually enter that folder but not be able to read its contents, see what files are located there.
- **File:** if it's script like (index.exe) run it to get data from it

6) *Write:*

- **Folder:** Edit folders data, delete or create new files/folders inside it and etc.
- **File:** ability to change its data.

7) *Read:*

- **Folder:** be able to read folder contents
- **File:** if it's text file like index.html or index.php be able to read it.

8)

- source directory: execute permission.
target directory: execute and write permission.
- source directory: execute and read permission.
source file: read permission.
target directory: execute and write permission.
- Delete a file: read permission.
- cd directory: execute permission
- list directory: execute and read permission.
- View file content: read permission.
- Modify file content: write permission.

9) *We created the file using:*

```
[ahmed@localhost ~]$ touch myfil.txt  
[ahmed@localhost ~]$ chmod 444 myfile.txt
```

When trying to delete it:

```
[ahmed@localhost ~]$ rm myfile.txt
```

rm: remove write-protected regular empty file 'myfile.txt'? y

➔ Shows me a message telling me that it has a read only permission so I had to be sure deleting it.

When Trying to write in it:

```
[ahmed@localhost ~]$ cat oldpassword >> myfile.txt
```

bash: myfile.txt: Permission denied

It tells me that I have no permission to write In this file.

10) Permission of / directory recursively:

```
[ahmed@localhost ~]$ namei -l /
```

Output:

```
f: /  
dr-xr-xr-x root root /  
drwxrwxr-x. 2 ahmed ahmed  6 May 7 12:15 myclass  
Owner: ahmed  
Group: ahmed
```

11) Changing the primary group for islam to be pgroup:

```
[ahmed@localhost ~]$ sudo usermod -g pgroup islam  
[ahmed@localhost ~]$ getent passwd | grep ^is  
islam:x:1001:30000::/home/islam:/bin/bash
```

12) We can change the file owner by:

```
[ahmed@localhost ~]$ chgrp pgroup myclass  
[ahmed@localhost ~]$ ls -ld myclass  
drwxrwxr-x. 2 ahmed pgroup 6 May 7 12:15 myclass
```

or using:

```
[ahmed@localhost ~]$ chmod :pgroup myclass
```

➔ but both of these methods only change the directory group owner not the user owner, so it still the same.

I don't know if this is right or not but I tried many things to make the owner of the file changes when changing the group owing the file.