

File permissions in Linux

Project description

This project is to manage the authorization and permissions of users within my organization.

Check file and directory details

```
researcher2@79c5c7ef0a9d:~$ cd projects
researcher2@79c5c7ef0a9d:~/projects$ ls -l
total 20
drwx--x--- 2 researcher2 research_team 4096 Dec 26 17:23 drafts
-rw-rw-rw- 1 researcher2 research_team  46 Dec 26 17:23 project_k.txt
-rw-r----- 1 researcher2 research_team  46 Dec 26 17:23 project_m.txt
-rw-rw-r-- 1 researcher2 research_team  46 Dec 26 17:23 project_r.txt
-rw-rw-r-- 1 researcher2 research_team  46 Dec 26 17:23 project_t.txt
researcher2@79c5c7ef0a9d:~/projects$ ls -a
.  ..  .project_x.txt  drafts  project_k.txt  project_m.txt  project_r.txt  project_t.txt
researcher2@79c5c7ef0a9d:~/projects$
```

Describe the permissions string

If you take a look at drafts, it shows it's a directory permission. Here it shows 'drwx' indicating that the user "researcher2" has read, write, and execute permissions. The next 3 characters '--x' shows that the group-type user has execute permissions for the 'drafts' directory. The others-type user has no permissions at all to this directory.

Change file permissions

```
researcher2@79c5c7ef0a9d:~$ cd projects
researcher2@79c5c7ef0a9d:~/projects$ ls -l
total 20
drwx--x--- 2 researcher2 research_team 4096 Dec 26 17:23 drafts
-rw-rw-rw- 1 researcher2 research_team  46 Dec 26 17:23 project_k.txt
-rw-r----- 1 researcher2 research_team  46 Dec 26 17:23 project_m.txt
-rw-rw-r-- 1 researcher2 research_team  46 Dec 26 17:23 project_r.txt
-rw-rw-r-- 1 researcher2 research_team  46 Dec 26 17:23 project_t.txt
researcher2@79c5c7ef0a9d:~/projects$ ls -a
.  ..  .project_x.txt  drafts  project_k.txt  project_m.txt  project_r.txt  project_t.txt
researcher2@79c5c7ef0a9d:~/projects$ chmod o-w project_k.txt
researcher2@79c5c7ef0a9d:~/projects$ ls -l
total 20
drwx--x--- 2 researcher2 research_team 4096 Dec 26 17:23 drafts
-rw-rw-r-- 1 researcher2 research_team  46 Dec 26 17:23 project_k.txt
-rw-r----- 1 researcher2 research_team  46 Dec 26 17:23 project_m.txt
-rw-rw-r-- 1 researcher2 research_team  46 Dec 26 17:23 project_r.txt
-rw-rw-r-- 1 researcher2 research_team  46 Dec 26 17:23 project_t.txt
researcher2@79c5c7ef0a9d:~/projects$
```

Change file permissions on a hidden file

```
researcher2@79c5c7ef0a9d:~/projects$ ls -la
total 32
drwxr-xr-x 3 researcher2 research_team 4096 Dec 26 17:23 .
drwxr-xr-x 3 researcher2 research_team 4096 Dec 26 17:51 ..
-rw--w---- 1 researcher2 research_team  46 Dec 26 17:23 .project_x.txt
drwx--x--- 2 researcher2 research_team 4096 Dec 26 17:23 drafts
-rw-rw-r-- 1 researcher2 research_team  46 Dec 26 17:23 project_k.txt
-rw----- 1 researcher2 research_team  46 Dec 26 17:23 project_m.txt
-rw-rw-r-- 1 researcher2 research_team  46 Dec 26 17:23 project_r.txt
-rw-rw-r-- 1 researcher2 research_team  46 Dec 26 17:23 project_t.txt
researcher2@79c5c7ef0a9d:~/projects$ chmod u-w,g-w,g+r .project_x.txt
researcher2@79c5c7ef0a9d:~/projects$ ls -la
total 32
drwxr-xr-x 3 researcher2 research_team 4096 Dec 26 17:23 .
drwxr-xr-x 3 researcher2 research_team 4096 Dec 26 17:51 ..
-r--r----- 1 researcher2 research_team  46 Dec 26 17:23 .project_x.txt
drwx--x--- 2 researcher2 research_team 4096 Dec 26 17:23 drafts
-rw-rw-r-- 1 researcher2 research_team  46 Dec 26 17:23 project_k.txt
-rw----- 1 researcher2 research_team  46 Dec 26 17:23 project_m.txt
-rw-rw-r-- 1 researcher2 research_team  46 Dec 26 17:23 project_r.txt
-rw-rw-r-- 1 researcher2 research_team  46 Dec 26 17:23 project_t.txt
researcher2@79c5c7ef0a9d:~/projects$
```

Change directory permissions

```
researcher2@79c5c7ef0a9d:~/projects$ ls -la
total 32
drwxr-xr-x 3 researcher2 research_team 4096 Dec 26 17:23 .
drwxr-xr-x 3 researcher2 research_team 4096 Dec 26 17:51 ..
-r--r----- 1 researcher2 research_team  46 Dec 26 17:23 .project_x.txt
drwx--x--- 2 researcher2 research_team 4096 Dec 26 17:23 drafts
-rw-rw-r-- 1 researcher2 research_team  46 Dec 26 17:23 project_k.txt
-rw----- 1 researcher2 research_team  46 Dec 26 17:23 project_m.txt
-rw-rw-r-- 1 researcher2 research_team  46 Dec 26 17:23 project_r.txt
-rw-rw-r-- 1 researcher2 research_team  46 Dec 26 17:23 project_t.txt
researcher2@79c5c7ef0a9d:~/projects$ chmod g-x drafts
researcher2@79c5c7ef0a9d:~/projects$ ls -l
total 20
drwx----- 2 researcher2 research_team 4096 Dec 26 17:23 drafts
-rw-rw-r-- 1 researcher2 research_team  46 Dec 26 17:23 project_k.txt
-rw----- 1 researcher2 research_team  46 Dec 26 17:23 project_m.txt
-rw-rw-r-- 1 researcher2 research_team  46 Dec 26 17:23 project_r.txt
-rw-rw-r-- 1 researcher2 research_team  46 Dec 26 17:23 project_t.txt
researcher2@79c5c7ef0a9d:~/projects$
```

Summary

This is a summary of my skills in managing the authorization and permissions for a select linux user, group, and other users within my organization. If given the opportunity to review access management using CLI commands for a company's file system, this is to show samples of my work.