ScreenShots from [File Permissions Lab]

```
researcher2@6dd61e441275:~$ pwd
/home/researcher2
researcher2@6dd61e441275:~$ cd projects/
researcher2@6dd61e441275:~/projects$ ls -l
total 20
drwx--x--- 2 researcher2 research_team 4096 Jan 19 15:32 drafts
-rw-rw-rw- 1 researcher2 research_team   46 Jan 19 15:32 project_k.txt
-rw-r----- 1 researcher2 research_team   46 Jan 19 15:32 project_m.txt
-rw-rw-r-- 1 researcher2 research_team   46 Jan 19 15:32 project_r.txt
-rw-rw-r-- 1 researcher2 research_team   46 Jan 19 15:32 project_t.txt
researcher2@6dd61e441275:~/projects$ ls -la
total 32
drwxr-xr-x 3 researcher2 research_team 4096 Jan 19 15:32 .
drwxr-xr-x 3 researcher2 research_team 4096 Jan 19 16:29 ..
-rw--w---- 1 researcher2 research_team   46 Jan 19 15:32 .project_x.txt
drwx--x--- 2 researcher2 research_team 4096 Jan 19 15:32 drafts
-rw-rw-rw- 1 researcher2 research_team   46 Jan 19 15:32 project_k.txt
-rw-r----- 1 researcher2 research_team   46 Jan 19 15:32 project_m.txt
-rw-rw-r-- 1 researcher2 research_team   46 Jan 19 15:32 project_r.txt
-rw-rw-r-- 1 researcher2 research_team   46 Jan 19 15:32 project_t.txt
researcher2@6dd61e441275:~/projects$ chmod o-w project_k.txt
researcher2@6dd61e441275:~/projects$ chmod g-r project_m.txt
researcher2@6dd61e441275:~/projects$ ls -la
total 32
drwxr-xr-x 3 researcher2 research_team 4096 Jan 19 15:32 .
drwxr-xr-x 3 researcher2 research_team 4096 Jan 19 16:29 ..
-rw--w---- 1 researcher2 research_team   46 Jan 19 15:32 .project_x.txt
drwx--x--- 2 researcher2 research_team 4096 Jan 19 15:32 drafts
-rw-rw-r-- 1 researcher2 research_team   46 Jan 19 15:32 project_k.txt
-rw------- 1 researcher2 research_team   46 Jan 19 15:32 project_m.txt
-rw-rw-r-- 1 researcher2 research_team   46 Jan 19 15:32 project_r.txt
-rw-rw-r-- 1 researcher2 research_team   46 Jan 19 15:32 project_t.txt
researcher2@6dd61e441275:~/projects$ chmod u-w,g-w,g+r project_x.txt
chmod: cannot access 'project_x.txt': No such file or directory
researcher2@6dd61e441275:~/projects$ chmod u-w,g-w,g+r .project_x.txt
researcher2@6dd61e441275:~/projects$ ls -la
total 32
drwxr-xr-x 3 researcher2 research_team 4096 Jan 19 15:32 .
drwxr-xr-x 3 researcher2 research_team 4096 Jan 19 16:29 ..
-r--r----- 1 researcher2 research_team   46 Jan 19 15:32 .project_x.txt
drwx--x--- 2 researcher2 research_team 4096 Jan 19 15:32 drafts
-rw-rw-r-- 1 researcher2 research_team   46 Jan 19 15:32 project_k.txt
-rw------- 1 researcher2 research_team   46 Jan 19 15:32 project_m.txt
-rw-rw-r-- 1 researcher2 research_team   46 Jan 19 15:32 project_r.txt
-rw-rw-r-- 1 researcher2 research_team   46 Jan 19 15:32 project_t.txt
researcher2@6dd61e441275:~/projects$ chmod g-x drafts
researcher2@6dd61e441275:~/projects$ ls -la
total 32
drwxr-xr-x 3 researcher2 research_team 4096 Jan 19 15:32 .
drwxr-xr-x 3 researcher2 research_team 4096 Jan 19 16:29 ..
-r--r----- 1 researcher2 research_team   46 Jan 19 15:32 .project_x.txt
drwx------ 2 researcher2 research_team 4096 Jan 19 15:32 drafts
-rw-rw-r-- 1 researcher2 research_team   46 Jan 19 15:32 project_k.txt
-rw------- 1 researcher2 research_team   46 Jan 19 15:32 project_m.txt
-rw-rw-r-- 1 researcher2 research_team   46 Jan 19 15:32 project_r.txt
-rw-rw-r-- 1 researcher2 research_team   46 Jan 19 15:32 project_t.txt
researcher2@6dd61e441275:~/projects$ []
```

Project description

In this project I checked permissions for files in a directory, checked for incorrect file permissions and changed permissions as needed, as well as remove unauthorized access to a directory

[Describe what you accomplish through Linux commands.]

- I accomplished changing permissions depending on who has access to the file they are affecting, and what they can do with that file. For example if other user has [read/write] permissions on a file named project_k.txt but should only have read then I would input chmod o-w project_k.txt to change that permission. To further elaborate on what (change mode) does. It is a command used to change the file system permissions of files and directories. It allows users to set who can read, write, or execute a file.

[The commands I used where:]

- [cd]
- This command allowed me to get into a directory and make permission changes to several files
- [ls -l]
- This command allowed me to see all the files within that directory
- [chmod o-w project_k.txt]
- This command allowed me to change the other user permission, to remove the write ability in the project_k.txt file
- [chmod g-r project_m.txt]
- This command allowed me to change the group permission, to remove the read ability in the project_k.txt file
- [ls -la]
- This command allowed me to see not only every file within the directory but also the hidden files as well.
- [chmod u-w,g-w,g+r .project_x.txt]
- This command effectively modified the permissions for the hidden file .project_x.txt. It restricted write access for both the user and group, while granting read-only permission to the group. This selective permission setting enhances file security and control over who can modify the file's contents.
- [chmod g-x drafts]

- Allowed me to change permission on the draft file so that the group couldn't use the execute function.

[interpreting the 10 character string]

- In Linux, a 10-character permission string represents file permissions and type. The first character indicates the file type: '-' for a regular file, 'd' for a directory, and others for special file types. The next nine characters are grouped into three sets of three, each representing permissions for the user (owner), group, and others, in that order. Each set consists of 'r' (read), 'w' (write), and 'x' (execute). A dash '-' in place of these letters indicates the absence of that permission. For example, '-rwxr-xr--' means a regular file where the user has full permissions, the group has read and execute permissions, and others have only read permission.

Summary

After changing these permissions I got a good hands on understanding on how to modify them, as well as how to view hidden files.