# File permissions in Linux

## Project description

create a new portfolio document to demonstrate your experience using Linux commands to manage file permissions. You can add this document to your cybersecurity portfolio, which you can share with prospective employers or recruiters.

## Check file and directory details

After navigating to the projects directory, using ls -la command, I identified the permissions assigned to each txt.file. I found a hidden file named .project\_x.txt, and an additional directory labeled ‘drafts’.

## Describe the permissions string

Comprised of a 10 character string where each character indicates authorization or specific permissions, or file type.

1st Character: Indicates the file type.

* d for a directory.
* - for a regular file.

2nd-4th Characters: Indicate the read (r), write (w), and execute (x) permissions for the user.

* A hyphen (-) instead of a character means the permission is not granted to the user.

5th-7th Characters: Indicate the read (r), write (w), and execute (x) permissions for the group.

* A hyphen (-) instead of a character means the permission is not granted to the group.

8th-10th Characters: Indicate the read (r), write (w), and execute (x) permissions for others.

* This refers to all other users on the system apart from the user and the group.
* A hyphen (-) instead of a character means the permission is not granted to others.
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## Change file permissions

I made a change to file project\_k.txt because it was ruled that others should not be able to access said file. I used the chmod command to change permissions in the directories, I removed writing permissions from others to write in the project\_k.txt file.

## Change file permissions on a hidden file

I identified the hidden file project\_x.txt, then I removed write permissions from the user with u-w. Then, I removed write permissions from the group with g-w, and added read

permissions to the group with g+r.

## Change directory permissions

I gave researcher2 user to have access to the drafts directory

and its contents. This means that no one other than researcher2 should have execute

Permissions. After further investigation, I found out that in the hidden file project\_x.txt had group execution access so I used the chmod command to remove them. The researcher2 user already had execute permissions, so they did not need to be added.

## Summary

I changed the permissions given to specific files to only be given the exact permissions that is required for someones role or needed accessibility in the projects directory. Using ls -la I was quickly able to identify permissions in the directory as well as hidden files. Using chmod, I was able to remove certain permissions and access to certain files that was deemed necessary.