# File permissions in Linux

## Project description

In this small project i’ll be detailing some of the useful commands we can use to make changes into the permissions of files, hidden files and directories, as well as how to access these files and directories.

## Check file and directory details

ls -la

## Describe the permissions string

For the .project\_x.txt we can see the 10 character string that describes the permissions for the different users of linux. The first character indicates what we are accessing, this being a “-” or Hyphen, this indicates that we are accessing a file, if it was a “d” it would be a directory. Next we have the three characters for the user, these are “rw-”, this indicates that the user has read and write permissions, but isn’t able to execute. This same pattern repeats for the group, but the group has only “-w-” write permissions, and “other” has “---” which means that no permissions are given to “other”.

## Change file permissions

The file that needs changing due to the “other” having write permissions is the “project\_k.txt

To change these file permissions we would use this command.

Chmod o-w project\_k.txt

This command changes permissions on the necessary file. The syntaxis is as follows:

Chmod is the command to change permissions.

O means the group we are changing is the “other”.

The “-” means removal.

The w means the permission we are removing, which in this case is the write one.

And lastly the file we are changing permissions.

## Change file permissions on a hidden file

The file that needs changing due to the “group” having write permissions is the “project\_k.txt

To change these file permissions we would use this command.

Chmod g-w .project\_x.txt

This command changes permissions on the necessary file. The syntaxis is as follows:

Chmod is the command to change permissions.

G means the group we are changing is the “group”.

The “-” means removal.

The x means the permission we are removing, which in this case is the execute one.

And lastly the file we are changing permissions which needs to be preceded by a “.” as this is a privileged file.

## Change directory permissions

The file that needs changing due to the “group” having write permissions is the “Drafts” directory

To change these directory permissions we would use this command.

Chmod g-x drafts

This command changes permissions on the necessary file. The syntaxis is as follows:

Chmod is the command to change permissions.

G means the group we are changing is the “group”.

The “-” means removal.

The x means the permission we are removing, which in this case is the execute one.

And lastly the directory we are changing permissions.

## Summary

We saw some commands and how these can be used to change and modify the permissions in files and directories, by using the “chmod” and “ls” with “-la” we can access all hidden and non-hidden files and directories and change them according to our needs for different groups.