

# File permissions in Linux

## Project description

I am given a scenario and must assign proper permissions to users, groups, and others in a linux system.

## Check file and directory details

```
ls -la
project_k.txt: -rw-rw-rw-
project_m.txt: -rw-r-----
project_r.txt: -rw-rw-r--
project_t.txt: -rw-rw-r--
.project_x.txt: -rw--w----
drafts: drwx--x---
```

## Describe the permissions string

First character represents a file or directory if it's a file it's a dash (-) if it's a directory it's a d.

Second through fourth characters represent user permissions read (r), write (w), executable (x), or none (-).

Fifth through seventh characters represent group permissions with the same options.

Eighth through tenth characters represent others group permissions which is anyone not a user or a group and they have the same options as well.

## Change file permissions

No write permissions for others - `chmod o-w [file]`

This command will remove write permissions for others on the file specified

## Change file permissions on a hidden file

Read only for archived file - `chmod u=r,g=r,o=- [file]`

This command will give user and group only read permissions and assign no permissions to other

## Change directory permissions

Only allow user access to directory - `chmod u=rwx,g=-,o=- [directory]`

This command will give user full permission to the directory and give no permissions to group or other

## Summary

In this scenario I had to check, remove, and add permissions to users, groups, and others for files and directories.