# File permissions in Linux

## Project description

[Describe what you accomplish through Linux commands.]

## Check file and directory details

`ls -l` lists files and directories in the current folder along with details like permissions, ownership, file size, and modification date.  
  
To include hidden files, use:  
`ls -la`

## Describe the permissions string

Example output:  
`-rw-r--r-- 1 murtaza users 1024 Apr 22 12:00 example.txt`  
  
Explanation of the permissions string:  
- `-` : Regular file (can also be `d` for directory)  
- `rw-` : Owner (murtaza) can read and write  
- `r--` : Group (users) can read only  
- `r--` : Others can read only  
  
Structure:  
[File Type][Owner][Group][Others]

## Change file permissions

Make a file executable by everyone:  
`chmod +x filename.sh`  
  
Give read, write, and execute permissions to the owner, and read-only to group and others:  
`chmod 744 script.sh`  
  
Remove write permission from others:  
`chmod o-w notes.txt`

## Change file permissions on a hidden file

Assuming a hidden file `.secret.txt`:  
  
Give the owner full permissions, remove all for others:  
`chmod 700 .secret.txt`  
  
Make it read-only for everyone:  
`chmod 444 .secret.txt`

## Change directory permissions

Make a directory accessible to everyone:  
`chmod 755 myfolder`  
  
Make a directory private (only accessible by the owner):  
`chmod 700 privatefolder`

## Summary

In this project, I explored how to use Linux commands to view and modify file and directory permissions. I learned how to:  
- View permission details using `ls -l` and `ls -la`  
- Interpret permission strings  
- Use `chmod` to change permissions on both regular and hidden files  
- Secure or expose directories depending on user needs  
  
This knowledge is crucial for maintaining system security and proper access control in Linux environments.