File permissions in Linux

Project description

Due to my organization needing to update the file permissions for certain directories and files, I can use the command line to safely make these changes and view the changes that I have made.

Check file and directory details

In order to check the file/directory details, you can use ls -la. This will show all of the permissions of each file and uncover any hidden files as well. Any file marked with a '.' as its prefix, is a hidden file or directory

Describe the permissions string

It is a 10 character string that describes the permissions on a specific file or directory.

The first character describes if it is a "d" for directory or "-" for a file.

The second to fourth characters indicate the permissions for the user. The permissions go as follows: "r" for read, "w" for write, "x" for execute. If all permissions exist, all three letters will appear. If one or more do not, the letter will be replaced with a "-".

The fifth to seventh characters are the same as above but for the category of "groups".

The eighth to tenth character are the same as well but for "other".

Change file permissions

To change file permissions, you can use the command chmod. You can use this command with arguments to make changes on permissions.

For example, chmod o-w project_k.txt

This command will remove the write permissions from the "other" group from the project_k.txt file. The "-" is to remove a permission while the "+" adds it. "o" is for other, "u" is for user, and "g" is for group,

Change file permissions on a hidden file

The same goes for hidden files, however, you must remember to include the “.” in front of the file name to access the hidden file.

Change directory permissions

Changing directory permissions is also the same as changing file permissions.

Summary

These commands can be used to quickly and securely change the permissions according to the standards/needs of an organization. It is easy to change and view the changes that were made using the command line.