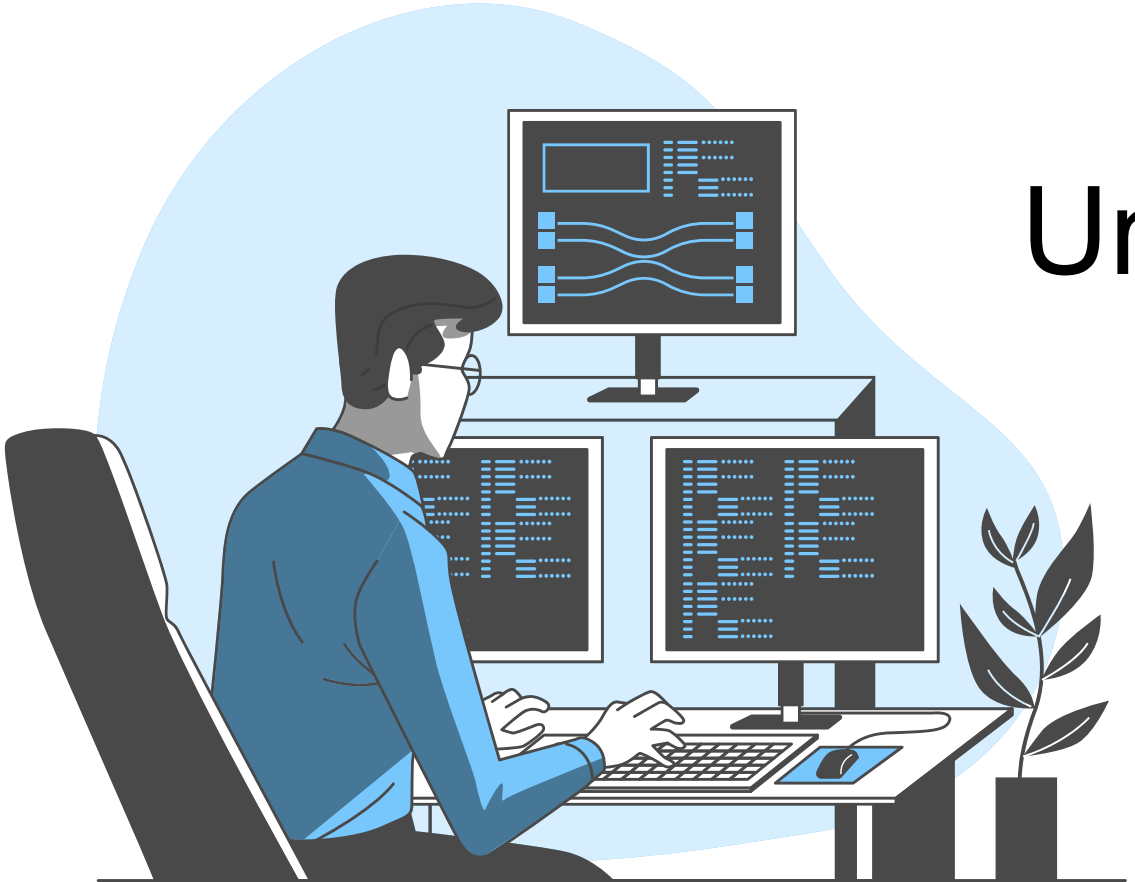


Understanding Linux Permissions

Understanding Ownership

- In Linux, every file and directory has an owner, which is usually a specific user account on the system.

- The owner is the user who created the file or directory, or the user who has been assigned ownership of the file or directory by another user who has the necessary permissions.

Understanding chown

The **"chown"** command in Linux is used to change the owner and/or group of a file or directory.

To Change the owner of file:-

chown username filename

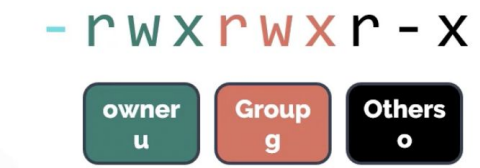
To change the owner and group of a file :-

chown username:groupname filename

To change the owner of a directory and all of its contents, including subdirectories and files

chown -R username directory

Understanding Basic Permissions



Permissions	Files	Directory
Read	Read	List
Write	Modify	Delete/Create
Execute	Run	cd

Understanding Basic Permissions

These permissions can be given to three types of users:

Owner - the person who created the file or folder

Group - a group of users who have been given access to the file or folder

Others - anyone else who is not the owner or in the group

Understanding Basic Permissions

- Read permission (r) allows a user or group to read the contents of a file or directory, including its attributes and permissions. They can also list the contents of a directory, including the names of the files and subdirectories it contains.

- Write permission (w) allows a user or group to create, modify, or delete files or subdirectories within the directory. This permission also allows a user or group to rename files or move them to another directory.

- Execute permission (x) allows a user or group to access the contents of a directory, such as listing its files or accessing its subdirectories. For a file, execute permission allows a user to execute the file as a program or script.

Understanding Basic Permissions

Bit	Purpose	Octal Value
r	Read	4
w	Write	2
x	Execute	1
-	No permission	0

Octal Number

- 0: no permissions (---)
- 1: execute only (--x)
- 2: write only (-w-)
- 3: write and execute (-wx)
- 4: read only (r--)
- 5: read and execute (r-x)
- 6: read and write (rw-)
- 7: read, write, and execute (rwx)