Chapter 7 - Controlling Access To Files

Owner	Add or Remove permission	Permission Specification
-u [User owner]	+ or -	-rwx or +rwx (read,write,execute)
-g [Group owner]	+ or -	-rwx or +rwx (read,write,execute)
-o [Other]	+ or -	-rwx or +rwx (read,write,execute)

ls -ld dir1 -> show the directory Permission

rwx rwx rwx
user group other

Command	Description
ls -ld dir1	show the directory Permission
chmod u-rwx dir1	change the directory permission for the user
chmod g-rwx dir1	change the directory permission for the group
chmod a+w file.txt	change the file permission for all [user-group-other]
chmod 754 file2	numerical permission changed to binary 7->111 [user] 5-> 101[group] 4 -> 100[other]
chown user1 file1	change the user owner

Set user ID

SUID is a special permission on **executable files** that lets a **user run the file with the permissions of the file's owner**, *usually root*
chmod u+s filename
chmod u-s filename (to remove it)

Set Group ID for files and directories

SGID is set on an **executable file**, the **process runs with the group permissions of the file's group**, *not the user's group*.

chmod g+s myapp

SGID is set on a **directory**, **new files created inside the directory's group** — not the group of the user creating them.
chmod g+s shared
OR:
any file or directory that is created inside this directory will have the group owner specified