

What is chmod?

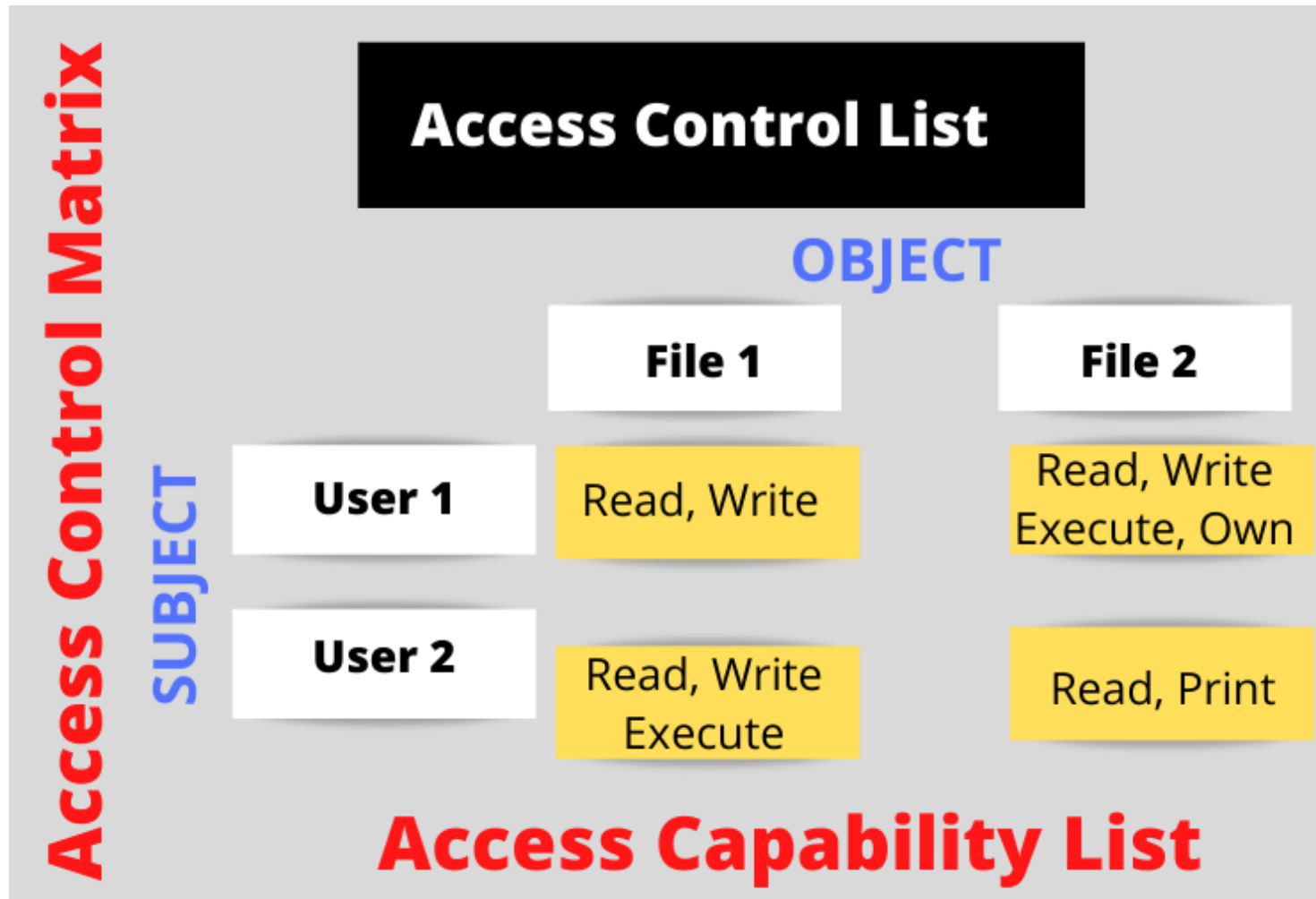
- ❑ Linux/Unix command to **change permissions** of files/directories.

Chmod

**MASTERING FILE AND DIRECTORY
PERMISSIONS IN LINUX**



Access Control Matrix



Access Control Matrix

- ❑ **Visual Clarity**: Easily see "who can do what."
- ❑ **Restrict access** to only what's necessary.
- ❑ **Audit & Track** permissions for security reviews.

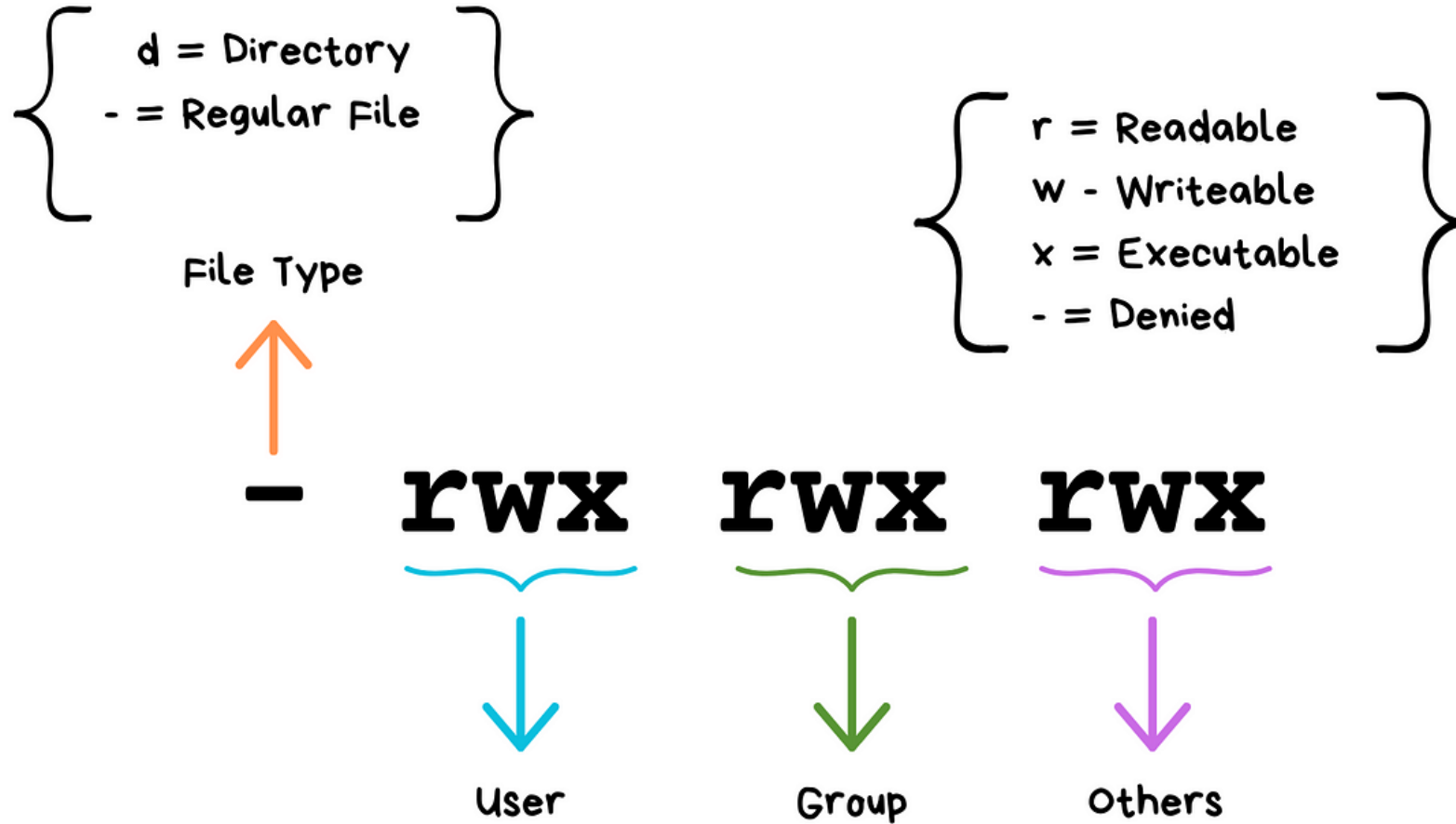


What is chmod?

- ❑ Controls who can:
 - Read (**r**), Write (**w**), Execute (**x**).
- ❑ Three categories:
 - User (**u**): Owner.
 - Group (**g**): Members of the file's group.
 - Others (**o**): Everyone else.



Permission Types



Symbolic Method

❑ `chmod [u/g/o] [+/-/=] [r/w/x] [file/folder]`

❑ Examples:

➤ `chmod u+x script.sh`

➤ `chmod go-w file.txt`

➤ `chmod u=rwx,g=rx,o=r myfile`



Numeric (Octal) Method

- ❑ 4 = Read, 2 = Write, 1 = Execute.
- ❑ Three digits: User, Group, Others.
- ❑ Examples:
 - `chmod 755 file`
 - `chmod 644 file`



Practical Examples

- ❑ Executable script:

```
chmod +x script.sh
```

- ❑ Secure a file:

```
chmod 600 secret.txt
```

- ❑ Shared folder:

```
chmod 774 shared/
```

