

# Discretionary Access Control

# Unix protection on files

Each process has a User ID & one or more group IDs

System stores with each file

- User who owns the file and group file is in
- Permissions for user, any one in file group, and other

Shown by output of "ls -l" command

- Each group of three letters specifies a subset of **r**ead, **w**rite, and **e**xecute permissions
- User permissions apply to processes with same user ID
- Else, group permissions apply to processes in same group
- Else, other permissions apply

```

    user group other owner  group
   └─┬──┴─┬──┴─┬──┴─┬──┴─┬──┘
- rw- rw- r--  dm  cs140 ... index.html
```