week8
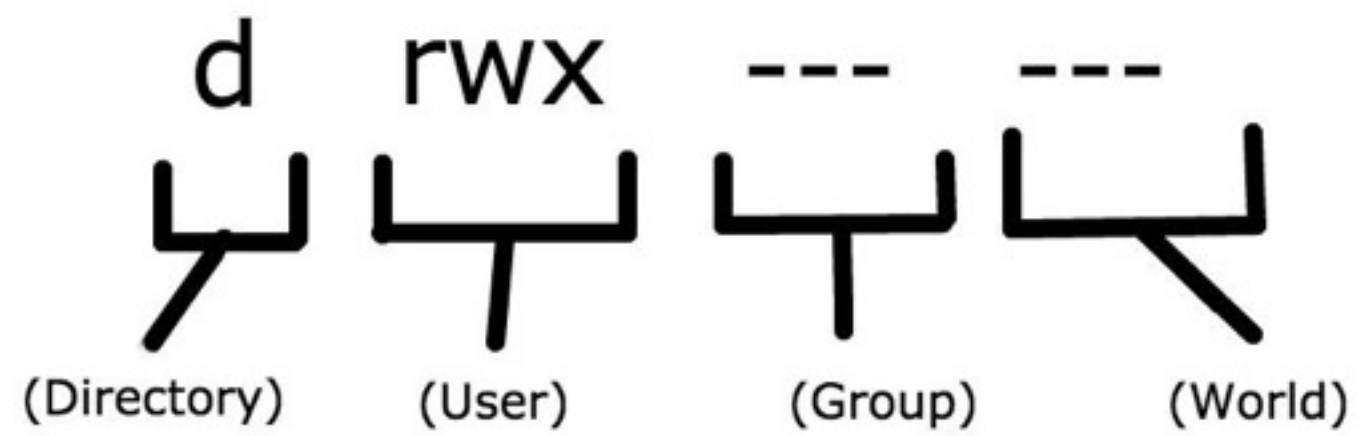
chmod

- unix system call to change file permissions

- you can check permissions by running ls -l

- chmod - - - (each - is a number from 0 -7)

- r: readable = 4

- w: writeable = 2

- x: executable = 1

Another way to write it:

- chmod group+permissions

  - + adds permissions

  - - takes away permissions

- u: user/owner

- g: group

- o: others

- a: all

Practice

- chmod 555

- chmod u+x

- chmod 640

Common cases

- `chmod 711 directory` (for any directory)

- `chmod 644 file.txt` (for non-PHP files)

- `chmod 600 file.php` (for PHP files)

TCP/IP

- Tranmission Control Protocol / Internet Protocol

- Gives a set of standards that govern how data should be packetized, transmitted, routed, and received

  - Goal is to increase the chance that the data we send will end up where we want it to

  - Let's you know if something goes wrong with transmission

Ports

- Tells you what type of data is being transmitted (just put these on your sheet for quiz1, don't memorize them)

- 21: FTP: File transfer protocol

- 25: SMTP: Email

- 53: DNS: Domain Name System

  - Answers the question: "What is the IP address of a domain name"?

- 80: HTTP: Webpage

- 443: HTTPS: Secure webpage

HTTP

- HyperText Transfer Protocol

- HyperText:

  - Text that gives us more information than regular text

  - Check out this cool website

- Transfer protocols: set of rules for requests and responses

Example Request

- GET / HTTP/1.1

- User-Agent: curl/7.24.0

- Host: www.apple.com

- <name>: <value>

Example Response:

```
HTTP/1.1 200 OK
Server: Apache
Content-Type: text/html; charset=UTF-8;
Content-Length: 16286
Connection: keep-alive
```

Status Codes

- 2xx = Success (ex. 200 OK)

- 3xx = Redirection (ex. 301 Moved Permanently)

- 4xx = Client Error (ex. 404 Not Found, 418 I'm a teapot)

- 5xx = Server error (e.x. 500 Internal Server Error)

HTML & CSS

- Practice and experiment – W3Schools is a good resource

- This isn't a web design course, so our focus isn't on making really "pretty" websites

- Advice:

  - Close your tags ()

  - Use the W3 Validator (think of it as the new style50)

  - Separate your markup from you style sheets

CSS

- Instead of tags, CSS uses "selectors"

- CSS maps attributes to selectors

- id's (#) are unique, classes are not (.)