Announcements
→ HW 2 in progress.
→ Office Hours!

Office Hours:	Monday,	2:30pm - 3:30pm
	Wednesday,	2:00pm - 3:00pm
	Thursday,	10:30am - 11:30am
Cudahy Hall 307		and by appointment

Lecture #4 — Unix Command line

File System

On my mac:

"root directory"

Windows "C:\"

Applications   Library System   Users   · · · · · ·

Guest   Shared   jay *

Desktop   Downloads   Dropbox

| |

five_letter_words.txt   Teaching
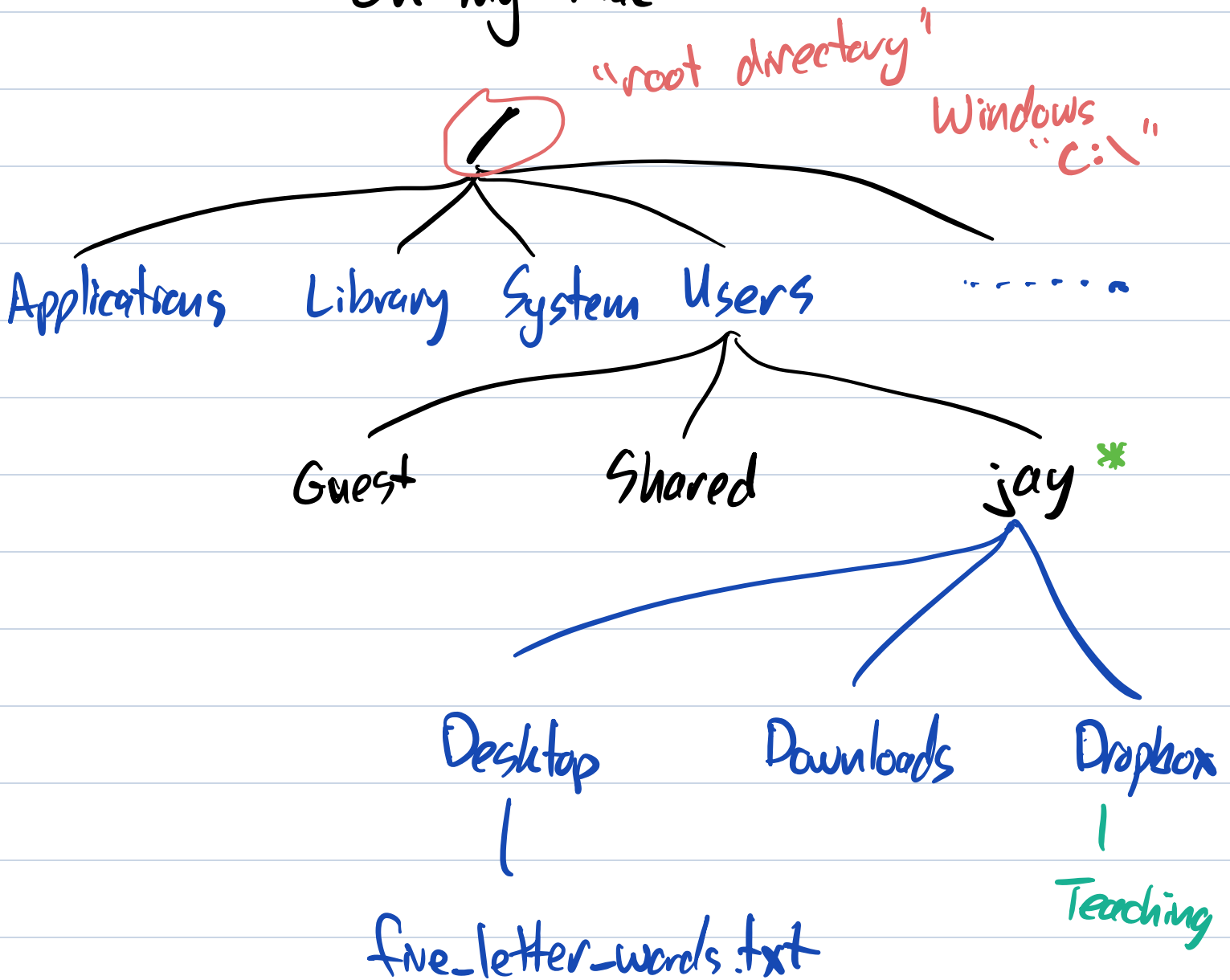
Every file has a "full address"
/Users/jay/Desktop/five_letter_words.txt

Windows: "Git Bash" / "Git for Windows"
Mac/Linux: "Terminal"

(1) pwd "present working directory"
     says which folder in the filesystem
     the terminal is currently active in

(2) ls "list" displays the files
     in the current folder

Most commands have extra arguments
"flags" that you can pass to change
the behavior.

"ls ⌴ -l" lists the files but with
      ↑   extra information
    space

"manual page" = "man page" for every
command that tells you all of the
optional arguments
     ↳ "q" to exit

You can also tell ls and many other commands to focus on certain files.

* = wildcard = matches any symbol

ls⎵-l⎵ *.txt   list full info for all files in the current folder that end with ".txt"

ls -l p*   ls *.txt

(3) cd - "change directory"
        moves to a different place in the file structure
        cd⎵[directory]

If your directory starts with a "/", you are specifying an "absolute path"
                                    full path from the root

cd /Users/jay/Desktop

If it doesn't start with a "/" it's
a "relative path" - file address based
on the current active folder.
   cd   Desktop

Shortcuts: "." - current folder you're in
                        (not helpful for cd)
             ".." - go up one folder
             "~" - user's home folder
                        (/Users/[username])
                        /home/   ...

> cd (~)/Dropbox/Teaching
> pwd
       /Users/jay/Dropbox/Teaching
> cd ../../Desktop
> pwd /Users/jay/Desktop

"Tab Completion" ~ if you write part of a
                file or folder name and
           hit tab, it will try to finish it

(4) mkdir _ [name]   makes a folder

  mkdir hello — makes a folder
                called "hello" in
                the p.w.d.

  mkdir /Users /jay /Desktop /hello

(5) mv _ [current location] _ [new location]

  Relocate a file / folder
  Rename a file / folder

(6) cp _ [current location] _ [new location]
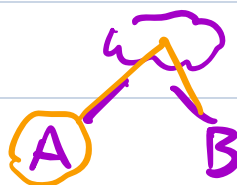   copies a file or folder
                                    ↖ need "-R"
  cp hello.txt world.txt   flag
  cp -R my_folder new_folder
[copy all the files in folder "A" to folder "B"
  cp A/* B   [cp * ../B]
                              Ⓐ   B

(7) rm [file or folder]
   "remove" / delete files or folders

↑ -R flag

⚠ This is a dangerous command.
"rm -rf /" will delete every file
on your computer, with no recycle bin.