Class notes

Wednesday, 1.15.25

Hre's a summary you may want to include in your notes:

- use the wifi icon to get IP address and wifi speed (option)
- use command-space to find terminal
- use **ifconfig** to verify your IP address (more on this next)
- **ping** to see if others are awake
- **ctrl-c** to cancel
- **ctrl-z** to halt
- **ssh admin@10.14.254.xyz** for secure shell
- **sudo shutdown -r now** to reboot
- say some clever stuff to say some clever stuff
- **traceroute** to determine path to servers or others
- **sudo**: super user do (later you can try su, or "make me root")

Friday, 1.17.25

- home/pi directory structure
- **sudo nano:** create a file
- ctrl-o: overwrite
- ctro-x: exit
- **ls:** list files (list)
- **ls -la:** list even invisible, hidden files (list, long, all)
- **pwd**: where am I? (print working directory)
- cd: change directory
- cd .. or cd up: cd up one level
- **nslookup**
- file browser
- Herobrine game
- more, less
- install dnsutils: sudo apt install dnsutils -y

Wednesday, 1.22.25

- **note pages on weblog for terminal commands**

Challenges:

1. challenge #1: find herobrine on your machine
2. challenge #2: create a new folder (**mkdir**) inside your Documents folder
3. challenge #3: create a visible and and a hidden file inside this folder
4. challenge #4: create a document inside a folder on the pi-alpha machine

5. challenge #5: find the missing documents in your partner's machine
6. challenge #6: create a folder and a document WITH PERMISSION in your partner's machine
7. challenge #7: edit the file your partner has created on your machine

New commands:

- **mkdir**: create a directory
- shortcut: up arrow means repeat last command...
- **ls -la** permissions: rwx, 777 format, 4-2-1
- install apps: **sudo apt install hardinfo -y**
- **who** also whoami
- **last** last command, also the up arrow
- **top** lists all processes, useful with kill (see later) (ctrl-x to quit)
- **ps**: processes
- **ps -ax**
- **kill**: just what it sounds like
- **grep**: ps -ax | grep chess (on the mac)
- **history**: shows recent commands like this, useful for retracing your steps or seeing who might have been in your machine

Network commands:

- **ifconfig**
- **ip addr show**
- **sudo raspi-config**: enable ssh
- **chmod**: change permissions
- **chmod +x:** makes something executable
- **cat /proc/cpuinfo**
- **traceroute (install)**
- **netstat or ss**
- **wavemon**
- **speedtest-cli** (install)
- **nmap -sP 10.14.88.0/24**
- **sudo arp-scan 10.14.88.0/24**
- **sudo iftop**
- DNS part 2: **nslookup** servers
- IP addresses, subnet mask, gateways
- cat6 cables, wifi, security, html, www, servers
- nomachine
- Mac network utility
- install apache: **sudo apt install apache2 -y**

2.18.25: Wednesday----
Check these pi apps out:
Geany (inside your programming folder)
pi-apps (will show up in your accessories folder):

wget -qO- https://raw.githubusercontent.com/Botspot/pi-apps/master/install | bash

install sublime text
install angry IP scanner
visual code (editor): sudo apt install code

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