Kernel / Linux Questions

1. Ways to exit VIM session?

A: Shift ZZ, :x or :wq

2. File Permissions: Owner Group Other

RWX R-X R-X

421 401 401

7 5 5

3. What does the top command do?

It allows for a process to be given a lower priority and it can kill a process by it’s ID.

4. Splitting a network into two separate subnets can be completed with the ifconfig command.

5. Two IP addresses RFC1918 reserves for private intranets: 192.168.0.0 and 10.0.0.0

6. what is the kernel?

The kernel talks to the hardware and software to effieciently manage the system’s resources as best as possible.

7. A few bullet points on the kernel in Linux.

* A process is a program in execution.
* A process includes: (open files, pending signals, internal kernel data, global variables, processor state, memory address spaces).
* They also contain one or more threads of execution.
* Modern Operating systems provide two virtualizations (Processor and memory). The virtual CPU fools the process into believing it has a monopoly over the resources of the system.

8. Daemons are services that may not be available under the base operating system. The daemon awaits for new services and completes them. (need more info)

To do list

* Set up the room for the quiz tomorrow.
* Open up the the shell terminal and practice practice practice.
* Create more notes.
* Look over processes and threads and all OS fundamentals notes.
* Write 50 bash scripts.
* Explore awk commands
* <https://ss64.com/bash/>

Algorithms and further topics to explore

* Time complexity and optimization
* Combinational sum
* Regex string matching
* Coordinates
* Subsets of a given set
* Deep copy of a linked list
* Lots of list/array functions and questions.
* Watch videos on Big O, Algorithms, Sorts, Linked lists, BST, BS, Stacks
* Binary notation