

## Week 1 Notes

### Oracle VM VirtualBox

- can run through:
  - Oracle VM VirtualBox
  - putty
  - or cmd "ssh user@localhost -p 6022"

### Shell:

- an interface to kernel
- example of shell(s):
  - Bourne Shell
  - Bourne Again Shell (bash)
  - C Shell

### Filesystem Hierarchy Standard

- Linux distribution file and directories structure
- structure like:
  - / : The root of directories
  - /bin : Contain essentials command binaries
  - /boot : Contains boot loader, files booted at startup
  - /dev : Contain device files
  - /etc : Contain system configuration files
  - /home : Contains directories for users
  - /lib : Contain libraries for the essentials command binaries
  - /media : Contain removable media's mount points
  - /mnt : Contains mounted filesystems
  - /opt : Contain application software packages
  - /proc : Contains process and kernel information in files
  - /root : Contains directories for root user.
  - /run : Contain runtime data

/sbin : Contain the essential system binaries  
/srv : Contains site-specific files  
/sys : Contains device and drivers information  
/tmp : Contains temporary files  
/usr : Contains read-only user data  
/var : Contains dynamic variable files

/proc command

- contains process and kernels info
- use it like reading files with cat

(Absolute vs Relative) Path:

- Absolute
  - The full path from root (/)
- Relative
  - Like absolute, but the root is the current working directory

(Application vs System) Programming

- Application
  - Program to bridge between User and Hardware
  - User-oriented
  - To provide a service to user
- System
  - Program to bridge between application/programmer and Hardware
  - Programs develop around hardware utility and application/programmer's needs
  - To give accessibility of hardware's utility to application/programmer