**Workstations VM login:**

student/student

root/redhat

**CHAPTER 1**

**WHAT is LINUX?**

is a KERNEL :)

1. Heart of an OS

2. layman term --> engine of a car

1.RHEL OS

2.Fedora OS

3.CentOS(clone of RHEL) --> end of life..... as of 2021

4.AlmaLinux or Rocky Linux

**CHAPTER 2**

**UPPERCASE and LOWERCASE IMPORTANCES!!!!**

**Command Option Argument (ie):**

**ls -l /home/student/Desktop (path)**

**ls -l /var (path)**

**date**

**Logging to Local Computer:**

1. GUI (Workstation VM) F6 (if GUI crashed doesn't mean your OS crashed)

2. Command line login with prompt of username and password

3. Virtual Console ( Ctl+ Alt + F[1-6] ) (for login into RHEL just in case your GUI crashed)

4. Putty.exe through ssh

5. GNOME-Terminal ( running above GNOME-GUI)

--> terminal use to access the RHEL OS server --> assess BASH (shell)

**COMMANDLINES is ALWAYS faster than GUI**

**Commands for today:**

ls

pwd

date

exit (Ctl + D)

w --> see which user is connect on which terminal ( also from ssh)

ps

whoami

passwd

file

more / cat / less

head / tail

echo

wc

**TAB auto completion:** --> IS YOUR COMMANDLINE BEST-FRIEND!!!!!! for all RHEL Version (7 and 8, 9)

1. no need to memorize spelling or command options

2. shows possibilities of that particular characters/commands

3. shows path

**HISTORY cmds**

1. 1000 line of commands history

2. Ctl+R (reverse history search)

**CHAPTER 3**

**touch** (create blank files or update timestamp)

**mkdir** / **rmdir** (create a new directory/folder and remove directory or folder that is empty)

**cp** (copy) (cp files/directory to destination) ie cp /home/sam/report.txt /tmp

**mv** (move or rename)

**rm** (remove files or directories)

**ln** ( creating symbolic link or hard link )

**Differences BTW “root”**

1. **root (user), root directory (/)** and **root home (/root)**

2. **man 7 hier**

3. **pathname** (absolute vs relative) --> also applicable to MS windows

/home/student/Desktop --> absolute (it begins with a "/" )

student/Desktop/spare/mine --> relative (doesn't begin with a "/" )

4. additional functionalities with the "cd" cmd.

cd pathname

cd .. one level up (cd ../../.. to go three level up)

cd - back

cd ~ sends you back to the logged in user's home directory

5. **What is an inode** --> reference from harddisk sector to the filesystem which points to directory and files

6. **Pattern matching** can be done within a file or within a directory.

strong

Strong, stRong, stronG, str\*, str???? (strong, strength, strenuous, string1)

used with cmd ls, find, locate, less, vim, man

search within a file: less

search within a folder: find

**CHAPTER 4**

1. manpages ( man subsection 1, 5, 7, 8)

2. pinfo pages

3. inbuilt documentation within RHEL /usr/share/doc

4. access.redhat.com/documentation