**CHAPTER 5** **--editing and creating text file** (all about text file)

1. **IO redirection** (stdin, stdout, stderr)

2. introduction to **vim** **editor** (nano vs vim)

3. **.bashrc, env, .bash\_profile, bash environment**

**Redirection symbol:**

1. **>** (redirect to file)

2. **>>** (append entry at the bottom of the file)

3. **&>** (capture everything to file)

4. **2>** (capture error to file)

5. **<** (getting output from stdin ie from another file)

6. **2>&1** (redirect stderr to stdout to be used across pipe | )

7. **2> /dev/null** ( not capture to file. straight away delete)

8. **|** ( pipe is used to combine multiple commands in a single line)

9. **tee** ( capture into text with while using pipe | )

**introduction to VIM ( vi Improved)** Command line text Editor:

--> colors (syntax checking)

--> split screen ( Ctl + w + s)(Ctl + w + v)(use :edit -> to open another file)

--> copy and paste (**visual mode** --> "v", then highlight, then "yy" to copy, then "p" to paste)

**3 Modes of VIM:**

1. Command mode (visual mode --> "v")

2. Insert mode (allow for editing)

3. Save and exit mode (ESC + : + wq!)

4. To exit without saving (ESC + : + q!)

**CHAPTER 6** **User and Group Management**

**COMMANDS to cover:**

useradd notable files (/etc/passwd, /etc/shadow, /etc/group, /home/\*.\*)

userdel -r

usermod

groupadd

groupdel

passwd

chage --> password expiry command

**RESPECTIVE** config files that is related to the above command:

**/etc/passwd**

**/etc/shadow**

**/etc/group**

**UID, GID (userid, groupdID):**

root (0)

system users (1-999)

normal user (1000 -->)

can use the **"id"** command to view this information

**Primary Group vs Supplementary Group:**

1. Primary Group --> gets created when using useradd

2. Supplementary Group --> extra group that we can create afterwards

3. system-group --> built in system group

**PREVILLAGE escalations:**

sudo (superuser do)

"**su -**" vs "**su**" (switch user)

**RELATED config file to sudo:**

/etc/sudoers

**CHAPTER 7** **Files and Directory Access/Permission/Ownership**

**COMMANDS to cover:**

chmod --> change permission --> rwx (numeric vs symbolic)

--> numberic method, r=4, w=2, x=1 (chmod 777 file1.txt)

--> symbolic method, u=user, g=group, o=others, r,w,x (chmod ugo+rwx dir) "+-="

chown

chgrp

**SPECIAL Permission:**

suid (setuserID) --> mainly use for scripts or exec files

sgid (setgroupID) (chmod 2777 dir)

sticky-bit (chmod 1777 dir)

**Special Permission(sgid and sticky-bit) is commonly used for Folders/Directory mainly!**

**CHAPTER 8** **Managing Linux Process** (similar concept to MS-Windows Task-Manager)

**WHAT IS a Process?**

1. Can be services/daemon/programs/apps

2. All process runs from Memory

3. Every process has a parent process id

4. Every process has a process id

5. We can pause and resume a process

--> what is zombie process (we don't WANT!!)

--> process respawn (process can come back to life, only some system process, ie tty)

--> process parent-child relationship (SIGNALS)

**COMMANDS to cover:**

ps (use appropriate options ie -ef, -auwx, etc) --> refer to man page

top

kill

System-Monitor (GUI)