**Working with a Vi Editor:**

1: Create a file using vi. Enter the following text:

A network is a group of computers that can communicate with each other, share

resources, and access remote hosts or other networks. Netware is a computer network

operating system designed to connect, manage, and maintain a network and its

services. Some of the network services are Netware Directory Services (NDS), file

system, printing and security.

🡪 admin@hostname01 ~]$ vi networrk.txt

1. Change the word “Netware” in the second line to “Novell Netware”.

🡪 :%s/Netware/Novell

b. Insert the text “(such as hard disks and printers)” after “share resources” in the

first line.

🡪/share resources

🡪 a to append text and type “such as hard disks and printers”

c. Append the following text to the file:

“Managing NDS is a fundamental administrator role because NDS provides a single

point for accessing and managing most network resources.”

* Vi.network
* G and type text and save

Working shell

1. Type some text on the shell separated by space

* This is a test sentence

1: Move cursor one word back

🡪alt+b

2: Move cursor one word forward

🡪alt+f

3: Move cursor to the first character

🡪ctrl +a

4: Move cursor to the end

🡪ctrl + e

5: Delete test from second word to last character

🡪 alt + b then Ctr l+ k

6: Delete the current line

* Ctrl + u

2: In lab 4 we have created a file errorlog.txt. Display it using cat command using

command completion.

* Cat errorlog.txt

3: Display history of command used so far.

🡪[admin@hostname01 ~]$ history

1 ifconfig

2 exit

3 passwd root

4 cd /root/

5 exit

6 hostname host01

7 su - root

4: Search ls command in history file

* [admin@hostname01 ~]$ history | grep ls

19 ls

20 cd ls

5: Repeat the last command rd

* [admin@hostname01 ~]$ history | grep rd

256 history | grep rd

!! for last command repeat

6: Execute 3 command from history file.

* [admin@hostname01 ~]$ !3

7: What are the different shells available.

🡪[admin@hostname01 ~]$ cat /etc/shells

/bin/sh

/bin/bash

/usr/bin/sh

/usr/bin/bash

Understanding access permissions

7.1: Create an empty file “demofile” and perform following instruction

🡪 [admin@hostname01 ~]$ touch demofile

[admin@hostname01 ~]$ ls

demofile

1. Revoke read permission from owner and use cat command.

🡪 [admin@hostname01 ~]$ chmod u-r demofile

[admin@hostname01 ~]$ cat demofile

cat: demofile: Permission denied

2. Revoke write permission from owner and open using vi

editor and add some contain in it.

🡪 [admin@hostname01 ~]$ chmod u-w demofile

[admin@hostname01 ~]$ vi demofile

3. Add read and write permission to owner.

🡪[admin@hostname01 ~]$ chmod u-rw demofile

4. Revoke write and execute from other and group

🡪 [admin@hostname01 ~]$ chmod go-wx demofile

5. Add write permission to group only

🡪 [admin@hostname01 ~]$ chmod g+w demofile

6. Assign read permission to all

🡪[admin@hostname01 ~]$ chmod a+r demofile

7. Revoke read permission from others

🡪[admin@hostname01 ~]$ chmod o-r demofile

8. Give the execute permission for the user for a file chap1

🡪[admin@hostname01 Desktop]$ chmod u+x chap1

9. Give the execute permission for user, group and others for a file add.c

🡪 [admin@hostname01 Desktop]$ touch add.c

[admin@hostname01 Desktop]$ chmod a+x add.c

10. Remove the execute permission from user, give read permission to

group and others for a file aa.c

🡪 [admin@hostname01 Desktop]$ chmod u-x,g+r,o+r aa.c

11. Give execute permission for users for a.c, kk.c, nato and myfile using

single command

🡪[admin@hostname01 Desktop]$ chmod u+x a.c kk.c nato myfile

7.2: Create an directory “demo” and copy /etc/passwd file in it

[admin@hostname01 ~]$ sudo mkdir demo

[sudo] password for admin:

[admin@hostname01 ~]$ ls

Demo

[admin@hostname01 ~]$ sudo cp /etc/passwd demo/

1. Display contents of demo

🡪[admin@hostname01 ~]$ ls demo

2. Revoke read permission from demo directory and use ls

command on it

🡪 [admin@hostname01 ~]$ sudo chmod go-rx demo

[admin@hostname01 ~]$ ls demo

ls: cannot open directory 'demo': Permission denied

3. Revoke write permission from demo directory and try to copy

/etc/profile file in it

🡪admin@hostname01 ~]$ sudo chmod u-w demo

[admin@hostname01 ~]$ sudo cp /etc/profile demo/

4. Delete passwd file from demo directory

🡪[admin@hostname01 ~]$ sudo rm demo/passwd

5. Revoke execute permission from demo directory and try cd

command on demo.

🡪[admin@hostname01 ~]$ sudo chmod u-x demo

[admin@hostname01 ~]$ cd demo

bash: cd: demo: Permission denied

**Using Process-Related Commands**

1. Find out the PID of the processes that are activated by you

🡪 [admin@hostname01 ~]$ ps -u $USER

PID TTY TIME CMD

3957 pts/2 00:00:00 bash

6817 pts/0 00:00:00 bash

7089 pts/1 00:00:00 bash

7119 pts/1 00:00:00 ps

1. Find out the information about all the processes that are currently active

🡪[admin@hostname01 ~]$ ps -ef

UID PID PPID C STIME TTY TIME CMD

root 1 0 0 Jan11 ? 00:00:04 /usr/lib

root 2 0 0 Jan11 ? 00:00:00 [kthread

root 3 2 0 Jan11 ? 00:00:00 [pool\_wo]

3. Start a different process in the background. Find out the status of the background

process using the PID of the same.

🡪[admin@hostname01 ~]$ sleep 100 &

[1] 7131

[admin@hostname01 ~]$ ps -p $!

PID TTY TIME CMD

1. /1 00:00:00 sleep
2. Run a job in background

🡪[admin@hostname01 ~]$ sleep 100 &

[1] 7131

5. Bring a last background job in fore ground

🡪[admin@hostname01 ~]$ fg

bash: fg: job has terminated

[1]+ Done sleep 100

6. Run 3 jobs in background and bring first job in foreground

🡪[admin@hostname01 ~]$ sleep 100 &

[1] 7156

[admin@hostname01 ~]$ sleep 200 &

[2] 7161

[admin@hostname01 ~]$ sleep 300 &

[3] 7166

[admin@hostname01 ~]$ fg %1

sleep 100

7. Stop current job

🡪 [admin@hostname01 ~]$ kill -SIGSTOP %1

bash: kill: %1: no such job

[2]- Done sleep 200

8. Start stopped job

🡪 admin@hostname01 ~]$ jobs

[1]+ Running sleep 240 &

[admin@hostname01 ~]$ bg %1 9. Run a job

10. Kill last job

🡪 [admin@hostname01 ~]$ kill %1

[1]+ Terminated sleep 450

11. Kill your shell using process id

🡪 kill -9 $$

12. Execute a ls command by setting priority as -10 using nice command

🡪 [admin@hostname01 ~]$ sudo nice -n -10 ls

13. Display a date on every hour using cron tab

🡪 admin@hostname01 ~]$ crontab -e

no crontab for admin - using an empty one

crontab: installing new crontab

[admin@hostname01 ~]$ crontab -l

0 \* \* \* \* date