**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.

Process to do this is:

Type vi network.txt into the terminal

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

Command Used🡪 :s/Netware/Novell Network/

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

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

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

system, printing and security.

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:%s/Netware/Novell Netware/g

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

first line.

Command used🡪 :1s/share resources/&(such as hard disks and printers)/

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(such as hard disks and printers) resources, and access remote hosts or other networks. Novell Netware is a computer network

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

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

system, printing and security.

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.”

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(such as hard disks and printers) resources, and access remote hosts or other networks. Novell Netware is a computer network

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point for accessing and managing most network resources

Working shell

1. Type some text on the shell separated by space

1: Move cursor one word back 🡪 ctrl + b

2: Move cursor one word forward 🡪ctrl + 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 🡪ctrl + 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.

Command: 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

8 yum update -y

9 su root

10 su -

11 cd

12 poweroff

13 ifconfig

14 exit

15 yum -y update

16 su - root

17 init 0

18 su - root

19 pwd

20 echo $HOME

21 whoami

22 ls

23 ls -a

24 cd

25 ls

26 ls -a

27 ls $home

28 ls chap[0-9a-z]\*

29 mkdir ~/c\_prog

30 ls ~

31 cd ~/c\_prog

32 pwd

33 cd

34 vi network.txt

35 This is an exmaple text for shell navigation

36 cat errorlog.txt

37 ls

38 cat data.txt 2> errorlog.txt

39 cat errorlog.txt

40 pwd

41 ls

42 ls | grep errorlog.txt

43 cat errorlog.txt

44 find ~ -name "errorlog.txt"

45 cd

46 /home/admin/errorlog.txt

47 echo "Sample error log content" > errorlog.txt

48 ls | grep errorlog.txt

49 cat errorlog.txt

50 cat err

51 cat errorlog.txt

52 history

4: Search ls command in history file

[admin@hostname01 ~]$ history | grep ls

22 ls

23 ls -a

25 ls

26 ls -a

27 ls $home

28 ls chap[0-9a-z]\*

30 ls ~

37 ls

41 ls

42 ls | grep errorlog.txt

48 ls | grep errorlog.txt

53 history | grep ls

5: Repeat the last command rd

Command used🡪[admin@hostname01 ~]$ !!

6: Execute 3 command from history file.

1.[admin@hostname01 ~]$ !3

passwd root

passwd: Only root can specify a user name.

2.[admin@hostname01 ~]$ !3

passwd root

passwd: Only root can specify a user name.

3. [admin@hostname01 ~]$ !61

pwd

/home/admin

7: What are the different shells available.

[admin@hostname01 Desktop]$ cat /etc/shells

/bin/sh

/bin/bash

/usr/bin/sh

/usr/bin/bash

You can also check which shell you are currently in by using which command and also echo $shell.

Understanding access permissions

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

[root@hostname01 ~]# touch demofile

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

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

2. Revoke write permission from owner and open using vi

editor and add some contain in it.

[root@hostname01 ~]# chmod u-w demofile

[root@hostname01 ~]# vi demofile

Warning10

1. Add read and write permission to owner.

[root@hostname01 ~]# chmod u+rw demofile

1. Revoke write and execute from other and group

[root@hostname01 ~]# chmod go-wx demofile

1. Add write permission to group only

[root@hostname01 ~]# chmod g+w demofile

1. Assign read permission to all

[root@hostname01 ~]# chmod a+r demofile

1. Revoke read permission from others

[root@hostname01 ~]# chmod o-r demofile

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

[root@hostname01 ~]# chmod u+x chap1

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

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

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

group and others for a file aa.c

[root@hostname01 ~]# chmod u-x,g+r,o+r add.c

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

single command

[root@hostname01 ~]# chmod u+x a.c kk.c nato myfile

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

1. Display contents of demo

[admin@hostname01 ~]$ ls -l demo

total 4

-rw-r--r--. 1 admin admin 2055 Jan 14 20:35 passwd

2. Revoke read permission from demo directory and use ls

command on it

[admin@hostname01 ~]$ chmod -r 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 ~]$ cp /etc/profile demo/

cp: cannot create regular file 'demo/profile': Permission denied

4. Delete passwd file from demo directory

[admin@hostname01 ~]$ chmod +w demo

[admin@hostname01 ~]$ rm demo/passwd

[admin@hostname01 ~]$ ls demo

ls: cannot open directory 'demo': Permission denied

5. Revoke execute permission from demo directory and try cd

command on demo.

[admin@hostname01 ~]$ chmod -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

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

[admin@hostname01 Desktop]$ ps aux

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

process using the PID of the same.

[admin@hostname01 ~]$ sleep 300 &

[1] 10709

1. Run a job in background

[admin@hostname01 ~]$ sleep 200 &

[2] 10738

[1] Done sleep 300

5. Bring a last background job in fore ground

[admin@hostname01 ~]$ fg

sleep 200

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

[admin@hostname01 ~]$ sleep 300 & sleep 400 & sleep 500 &

[2] 10831

[3] 10832

[4] 10833

7. Stop current job 🡪 ctrl + z

8. Start stopped job 🡪bg

9. Run a job

[admin@hostname01 ~]$ sleep 100 &

[5] 10846

10. Kill last job

[admin@hostname01 ~]$ kill %%

[5]+ Terminated sleep 100

11. Kill your shell using process id

[admin@hostname01 ~]$ kill %%

[5]+ Terminated sleep 100

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

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

nice: cannot set niceness: Permission denied

aa.c chap1 chapb demofile Downloads filea fileUNIX lsdoc nato Pictures users

a.c chap2 chapz Desktop errorlog.txt filec friends Music network.txt Public Videos

add.c chapa demo Documents exampleUNIX fileo kk.c myfile newfriend Templates

[2] Done sleep 300

13. Display a date on every hour using cron tab

[admin@hostname01 ~]$ crontab -e