Practical 1

AIM : Study of Basic commands of Linux.

1. pwd Command

The **pwd** command is used to display the location of the current working directory.

2. mkdir Command

The **mkdir** command is used to create a new directory under any directory.
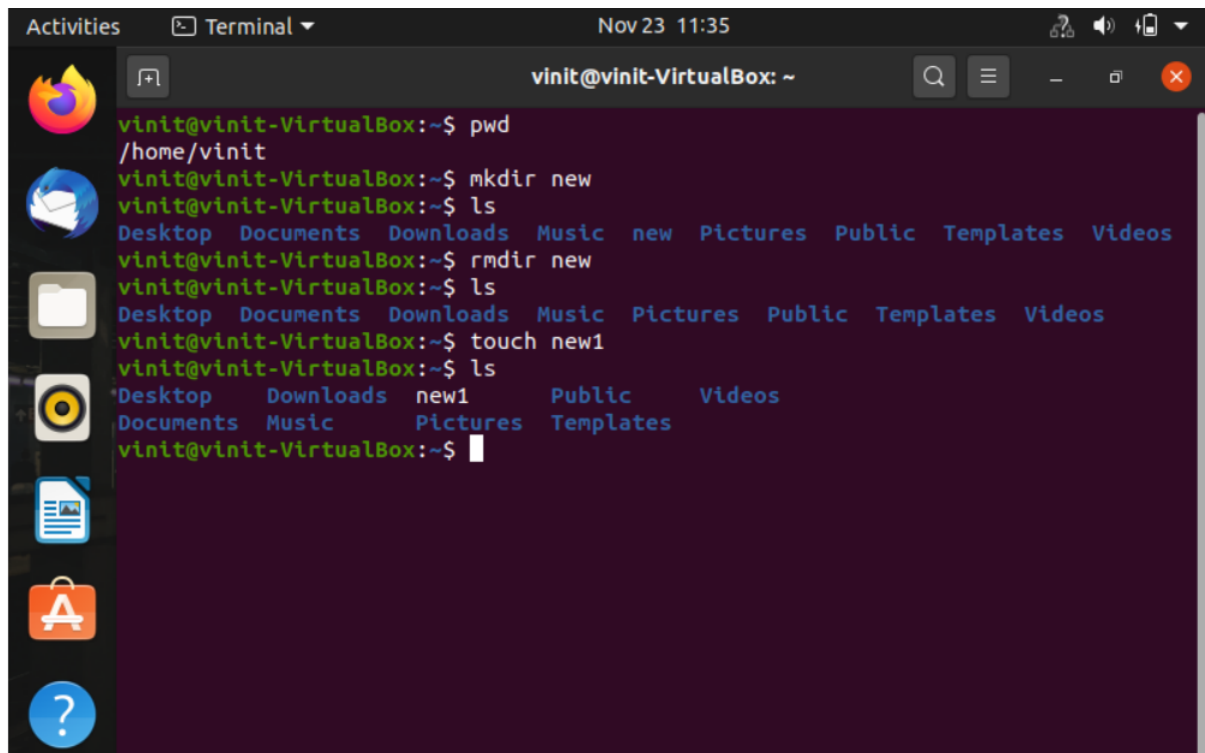
3. rmdir Command

The **rmdir** command is used to delete a directory.

4. ls Command

The **ls** command is used to display a list of content of a directory.

5. touch Command

The **touch** command is used to create empty files. We can create multiple empty files by executing it once.
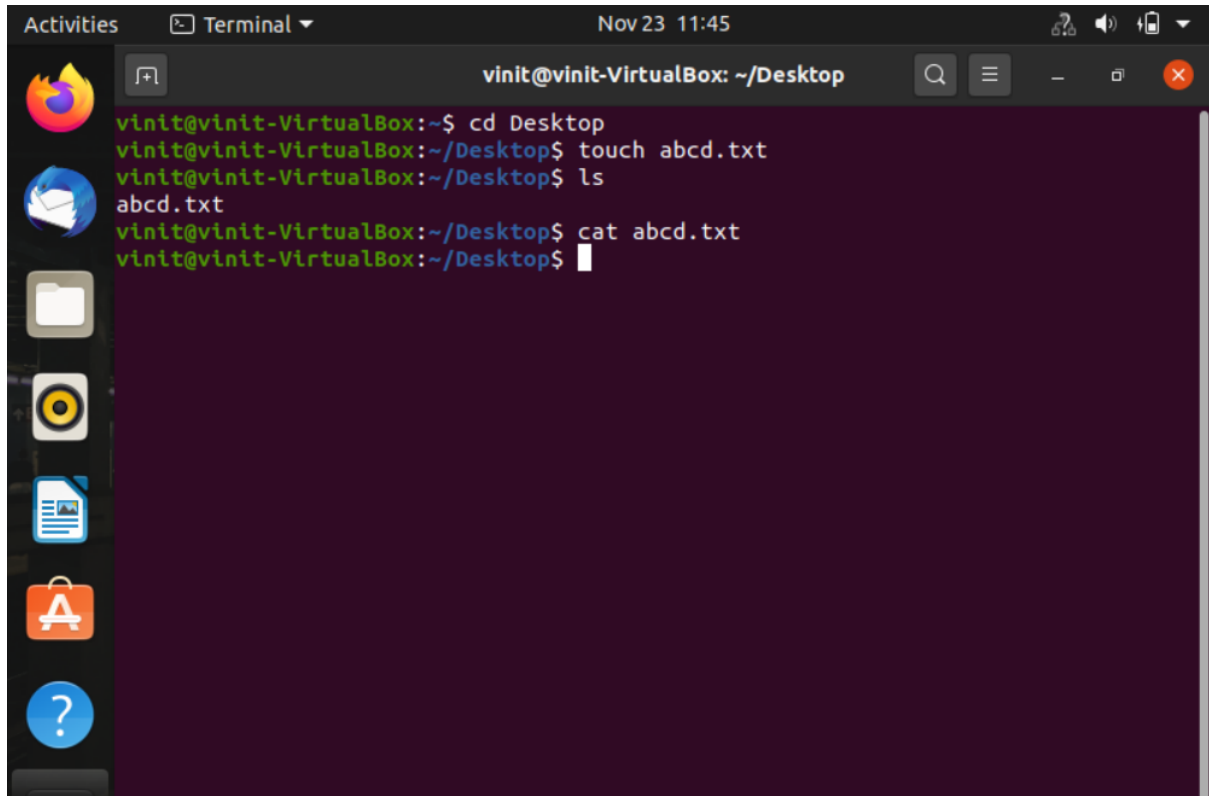
6. cd Command

The **cd** command is used to change the current directory.

7. cat Command

The **cat** command is a multi-purpose utility in the Linux system. It can be used to create a file, display content of the file, copy the content of one file to another file, and more.

8. rm Command

The **rm** command is used to remove a file.

9. tac Command

The **tac** command is the reverse of cat command, as its name specified. It displays the file content in reverse order (from the last line).

10. more command

The **more** command is quite similar to the cat command, as it is used to display the file content in the same way that the cat command does. The only difference between both commands is that, in case of larger files, the more command displays screenful output at a time.
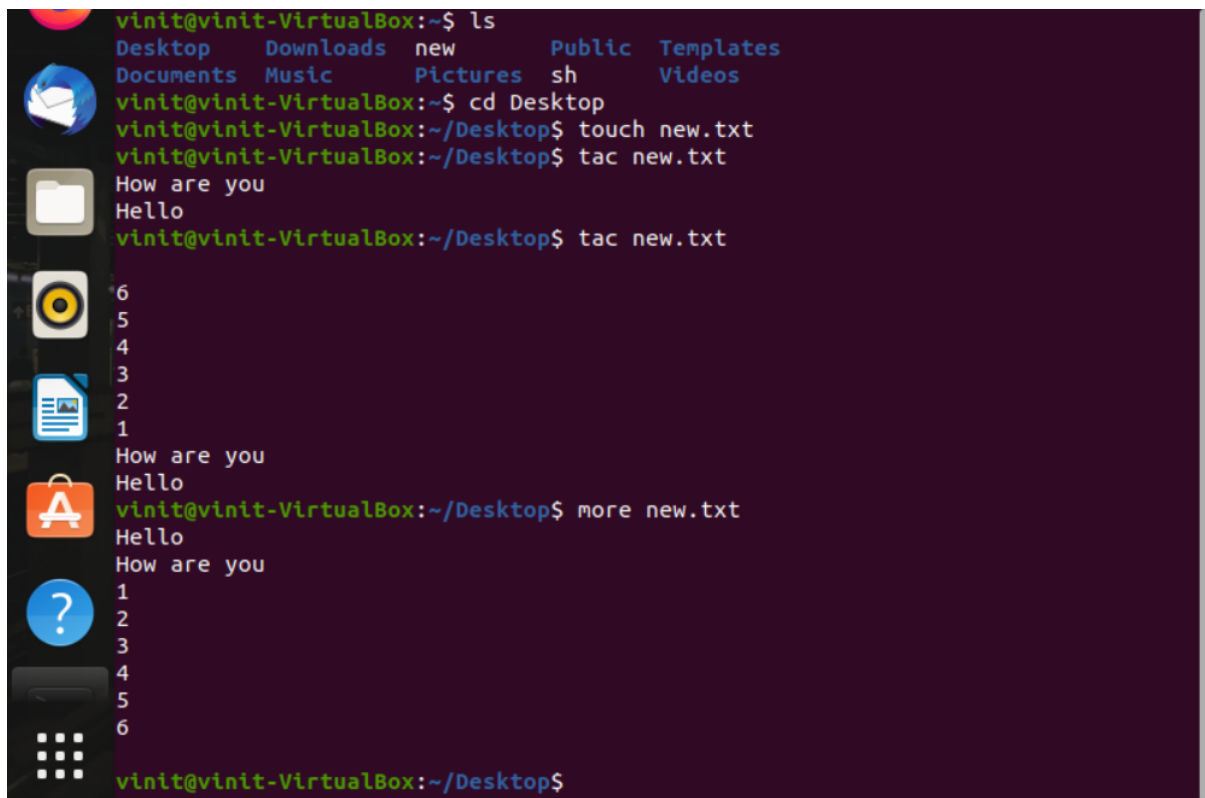
In more command, the following keys are used to scroll the page:

ENTER key : To scroll down page by line.

Space bar : To move to the next page.

b key : To move to the previous page.

/ key : To search the string.
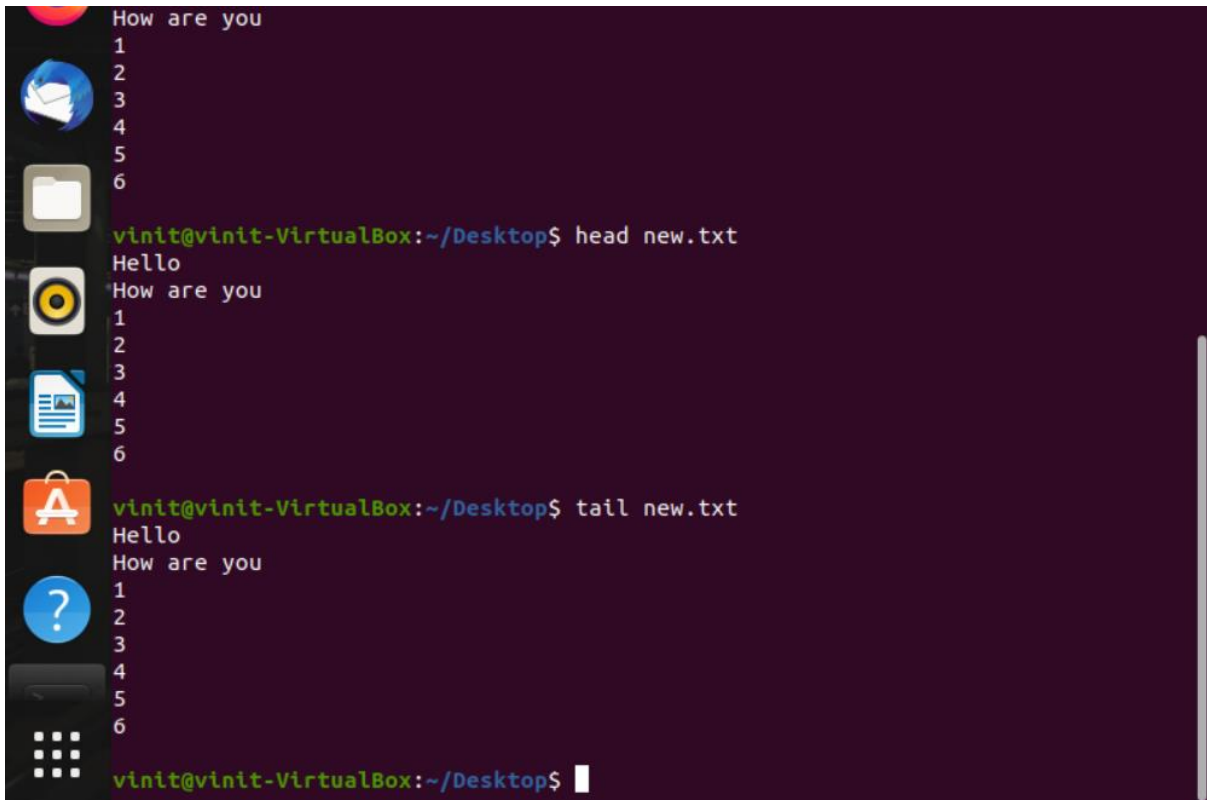
```
vinit@vinit-VirtualBox:~$ ls
Desktop    Downloads  new       Public    Templates
Documents  Music      Pictures  sh        Videos
vinit@vinit-VirtualBox:~$ cd Desktop
vinit@vinit-VirtualBox:~/Desktop$ touch new.txt
vinit@vinit-VirtualBox:~/Desktop$ tac new.txt
How are you
Hello
vinit@vinit-VirtualBox:~/Desktop$ tac new.txt

6
5
4
3
2
1
How are you
Hello
vinit@vinit-VirtualBox:~/Desktop$ more new.txt
Hello
How are you
1
2
3
4
5
6

vinit@vinit-VirtualBox:~/Desktop$
```

11. head Command

The **head** command is used to display the content of a file. It displays the first 10 lines of a file .

12. tail Command

The **tail** command is similar to the head command. The difference between both commands is that it displays the last ten lines of the file content. It is useful for reading the error message.
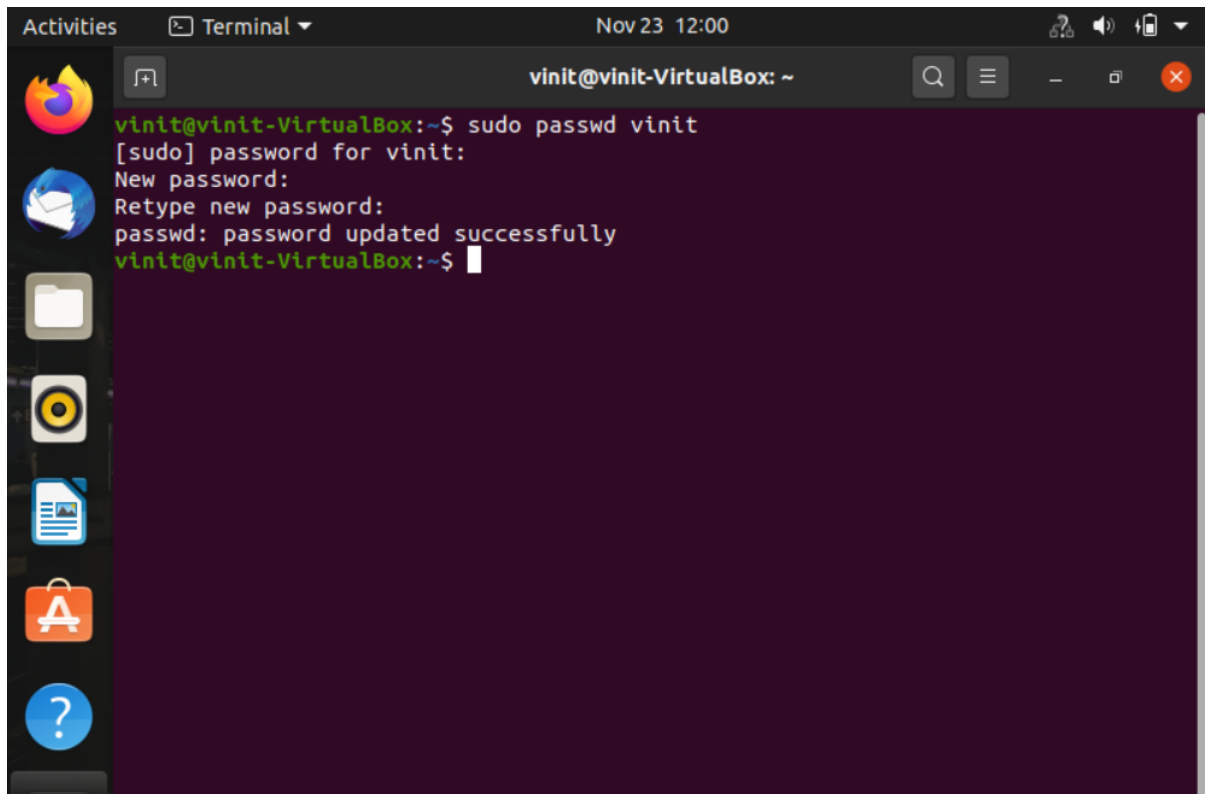

13. **passwd Command**

The **passwd** command is used to create and change the password for a user.

14. id Command

The **id** command is used to display the user ID (UID) and group ID (GID).

15. su Command

The **su** command provides administrative access to another user. In other words, it allows access of the Linux shell to another user.

16. less Command

The **less** command is similar to the more command. It also includes some extra features such as 'adjustment in width and height of the terminal.'

Comparatively, the more command cuts the output in the width of the terminal.

17. cp Command

The **cp** command is used to copy a file or directory.

```
Activities     Terminal ▼                    Nov 23 12:11

                          vinit@vinit-VirtualBox: ~/os

vinit@vinit-VirtualBox:~$ id
uid=1000(vinit) gid=1000(vinit) groups=1000(vinit),4(adm),24(cdrom),27(sudo),30
(dip),46(plugdev),120(lpadmin),131(lxd),132(sambashare)
vinit@vinit-VirtualBox:~$ su vinit
Password:
vinit@vinit-VirtualBox:~$
vinit@vinit-VirtualBox:~$ less os
os is a directory
vinit@vinit-VirtualBox:~$ cd os
vinit@vinit-VirtualBox:~/os$ cat xyz.txt
cat: xyz.txt: No such file or directory
vinit@vinit-VirtualBox:~/os$ touch xyz.txt
vinit@vinit-VirtualBox:~/os$ cat xyz.txt
1
2
3
4
5
6
vinit@vinit-VirtualBox:~/os$
```

Practical 2

AIM: Study basics of shell programming.

SHELL SCRIPT

A shell script is a text file that contains a sequence of commands for a UNIX-based operating system. It is called a shell script because it combines a sequence of commands, that would otherwise have to be typed into the keyboard one at a time, into a single script.

Types of script

- The Bourne Shell
- The C Shell
- The Korn Shell
- The GNU Bourne-Again Shell
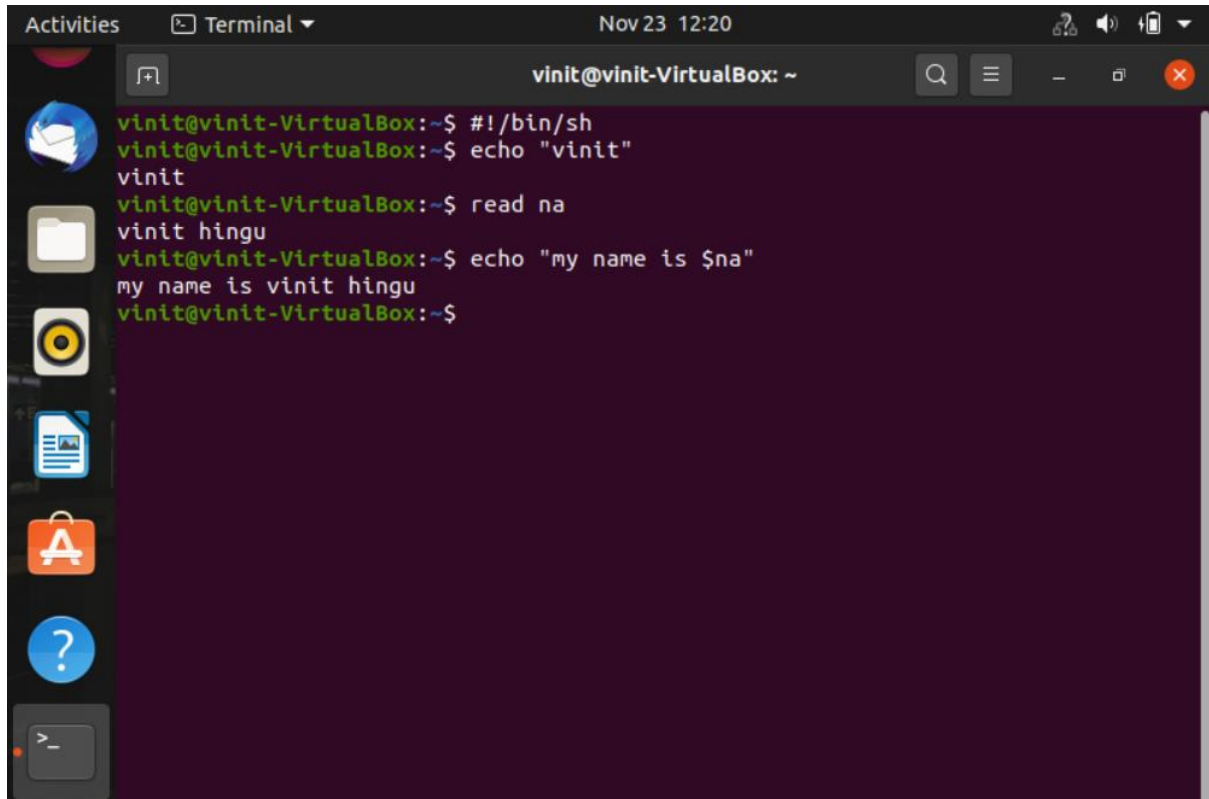
Create shell script files

create a file " file.sh". command for create file "cat > file.sh"

- **Echo** function is use for output the statement.
- **Read** function use for input the data.

There is 3 types to create file

1. Touch
2. Cat command
3. Text editor

Shell script example

```
Activities        Terminal ▾                     Nov 23 12:59

                                    vinit@vinit-VirtualBox: ~

vinit@vinit-VirtualBox:~$ #!/bin/sh
vinit@vinit-VirtualBox:~$ read name
vinit
vinit@vinit-VirtualBox:~$ echo my name is $name
my name is vinit
vinit@vinit-VirtualBox:~$ cat > new.sh
echo "what is your name: "
read name
echo "your name is $name."vinit@vinit-VirtualBox:~$
vinit@vinit-VirtualBox:~$ bash new.sh
what is your name:
vinit hingu
your name is vinit hingu.
vinit@vinit-VirtualBox:~$ S
```

```
Activities        Text Editor ▾                  Nov 23 12:25

Open    ▾                            vinit.sh                    Save
                                    ~/Documents
  1 echo "what is your name"
  2 read name
  3 echo "my name is $name"
  4
  5
  6
  7
  8
  9
 10
 11
```