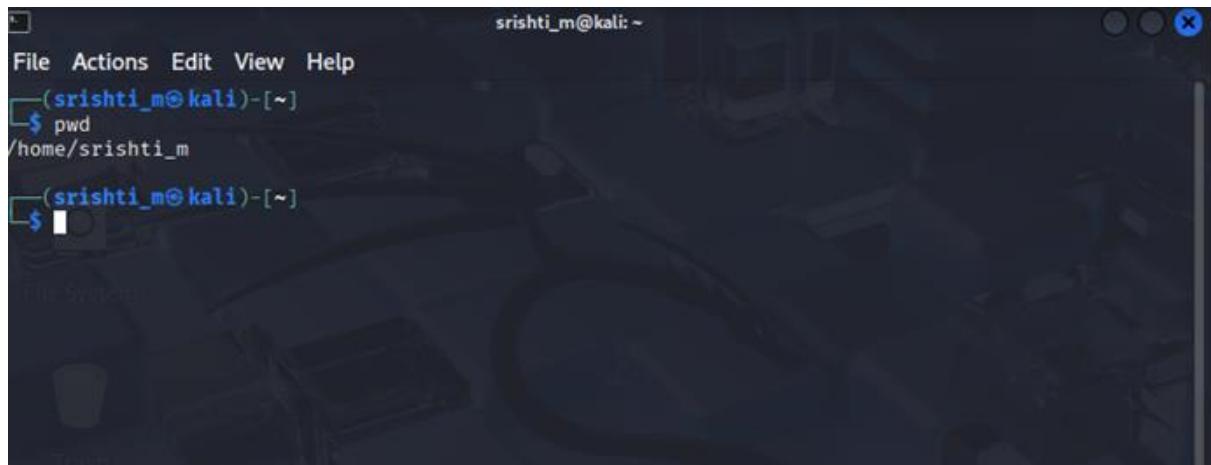


Experiment:- 2

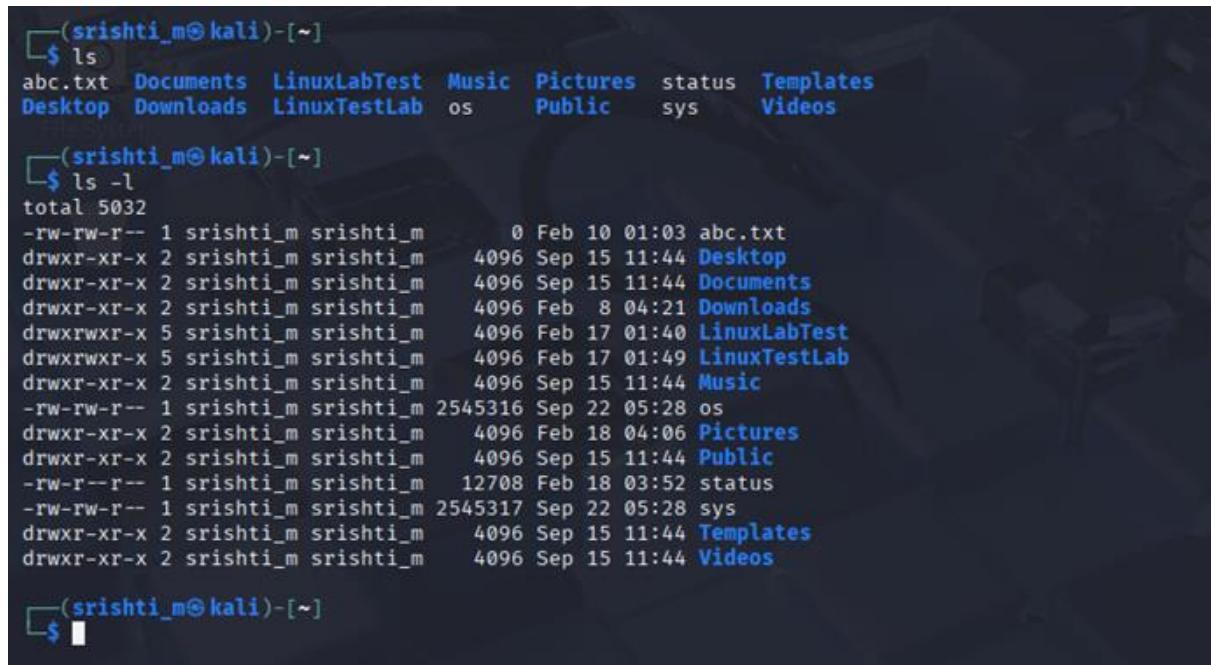
Aim:- working with files and directories in linux

1. Log in to the Linux virtual machine.
2. Open the terminal.
3. Display the current directory.



The screenshot shows a terminal window titled "srishthi_m@kali: ~". The window has a menu bar with "File", "Actions", "Edit", "View", and "Help". The terminal prompt is "(srishthi_m@kali)-[~]". The user has run the command "pwd" which outputs the path "/home/srishthi_m". The terminal is currently empty, with only the cursor visible at the prompt.

4. List files and directories.



The screenshot shows a terminal window titled "(srishthi_m@kali)-[~]". The user has run the command "ls" which lists the contents of the current directory: abc.txt, Documents, LinuxLabTest, Music, Pictures, status, Templates, Desktop, Downloads, LinuxTestLab, os, Public, sys, and Videos. The user then runs the command "ls -l" which provides a detailed listing of each file and directory, including permissions, owner, group, size, modification date, and name. The output is as follows:

```
total 5032
-rw-rw-r-- 1 srishti_m srishti_m      0 Feb 10 01:03 abc.txt
drwxr-xr-x  2 srishti_m srishti_m  4096 Sep 15 11:44 Desktop
drwxr-xr-x  2 srishti_m srishti_m  4096 Sep 15 11:44 Documents
drwxr-xr-x  2 srishti_m srishti_m  4096 Feb  8 04:21 Downloads
drwxrwxr-x  5 srishti_m srishti_m  4096 Feb 17 01:40 LinuxLabTest
drwxrwxr-x  5 srishti_m srishti_m  4096 Feb 17 01:49 LinuxTestLab
drwxr-xr-x  2 srishti_m srishti_m  4096 Sep 15 11:44 Music
-rw-rw-r--  1 srishti_m srishti_m 2545316 Sep 22 05:28 os
drwxr-xr-x  2 srishti_m srishti_m  4096 Feb 18 04:06 Pictures
drwxr-xr-x  2 srishti_m srishti_m  4096 Sep 15 11:44 Public
-rw-r--r--  1 srishti_m srishti_m 12708 Feb 18 03:52 status
-rw-rw-r--  1 srishti_m srishti_m 2545317 Sep 22 05:28 sys
drwxr-xr-x  2 srishti_m srishti_m  4096 Sep 15 11:44 Templates
drwxr-xr-x  2 srishti_m srishti_m  4096 Sep 15 11:44 Videos
```

5. Create a new directory.

```
(srishti_m㉿kali)-[~]
└─$ mkdir linux_lab

(srishti_m㉿kali)-[~]
└─$ cd linux_lab

(srishti_m㉿kali)-[~/linux_lab]
└─$ █
```

6. Create files inside the directory.

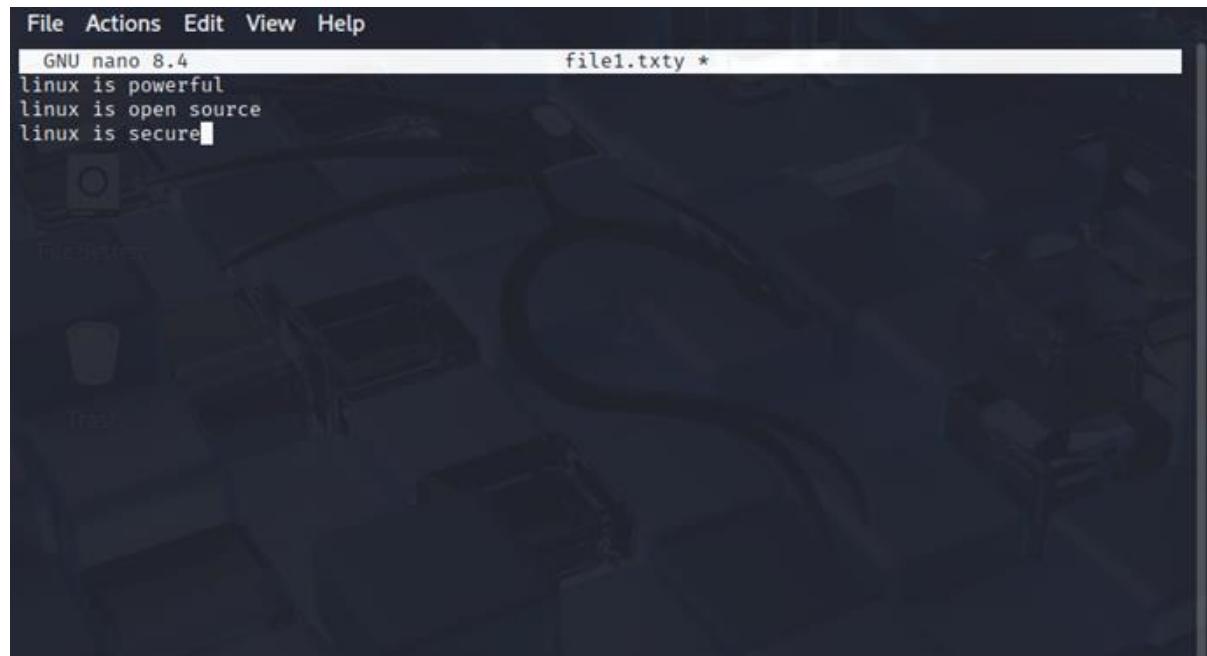
```
(srishti_m㉿kali)-[~/linux_lab]
└─$ touch file1.txt file2.txt

(srishti_m㉿kali)-[~/linux_lab]
└─$ █
```

7. Edit a file using nano.

```
(srishti_m㉿kali)-[~/linux_lab]
└─$ nano file1.txt

(srishti_m㉿kali)-[~/linux_lab]
└─$ █
```



- Vi file2.txt

```
(srishti_m㉿kali)-[~]
└─$ mkdir linux_lab2

(srishti_m㉿kali)-[~]
└─$ cd linux_lab2

(srishti_m㉿kali)-[~/linux_lab2]
└─$ touch file1.txt file2.txt

(srishti_m㉿kali)-[~/linux_lab2]
└─$ nano file1.txt

(srishti_m㉿kali)-[~/linux_lab2]
└─$ vi file2.txt
```



- Display file contents: cat file1.txt

```
(srishti_m㉿kali)-[~/linux_lab2]
└─$ cat file1.txt

(srishti_m㉿kali)-[~/linux_lab2]
└─$
```

- Check file permissions:ls -l

```
(srishti_m㉿kali)-[~/linux_lab2]
└─$ cat file1.txt

(srishti_m㉿kali)-[~/linux_lab2]
└─$ ls -l
total 8
-rw-rw-r-- 1 srishti_m srishti_m 0 Feb 20 02:59 file1.txt
-rw-rw-r-- 1 srishti_m srishti_m 55 Feb 20 03:01 file1.txtn
-rw-rw-r-- 1 srishti_m srishti_m 51 Feb 20 03:07 file2.txt

(srishti_m㉿kali)-[~/linux_lab2]
└─$
```

- Change file permissions: chmod 755 file1.txt

```
(srishti_m㉿kali)-[~/linux_lab2]
└─$ ls -l
total 8
-rw-rw-r-- 1 srishti_m srishti_m 0 Feb 20 02:59 file1.txt
-rw-rw-r-- 1 srishti_m srishti_m 55 Feb 20 03:01 file1.txtn
-rw-rw-r-- 1 srishti_m srishti_m 51 Feb 20 03:07 file2.txt

(srishti_m㉿kali)-[~/linux_lab2]
└─$ chmod 755 file1.txt
```

- Verify updated permissions: ls -l file1.txt

```
(srishti_m㉿kali)-[~/linux_lab2]
└─$ chmod 755 file1.txt

(srishti_m㉿kali)-[~/linux_lab2]
└─$ ls -l file1.txt
-rwxr-xr-x 1 srishti_m srishti_m 0 Feb 20 02:59 file1.txt

(srishti_m㉿kali)-[~/linux_lab2]
└─$ █
```

Expected Output • Successful execution of basic Linux commands.

- Display of manual pages and help documentation.
- Identification of current system run level / target.
- Improved familiarity with Linux command usage.

Result Basic Linux system commands, run levels, and help utilities were successfully explored and executed. The student gained practical understanding of Linux command-line interaction and documentation mechanisms.