

Operating System

Lab Report

Lab 04 (Sessional-1)



Group Members Name & Reg #:	<u>Muhammad Haris Irfan</u> (FA18-BCE-090)
Class	Operating System (BCE-5B)
Instructor's Name	Sir Wasif

In Lab Tasks

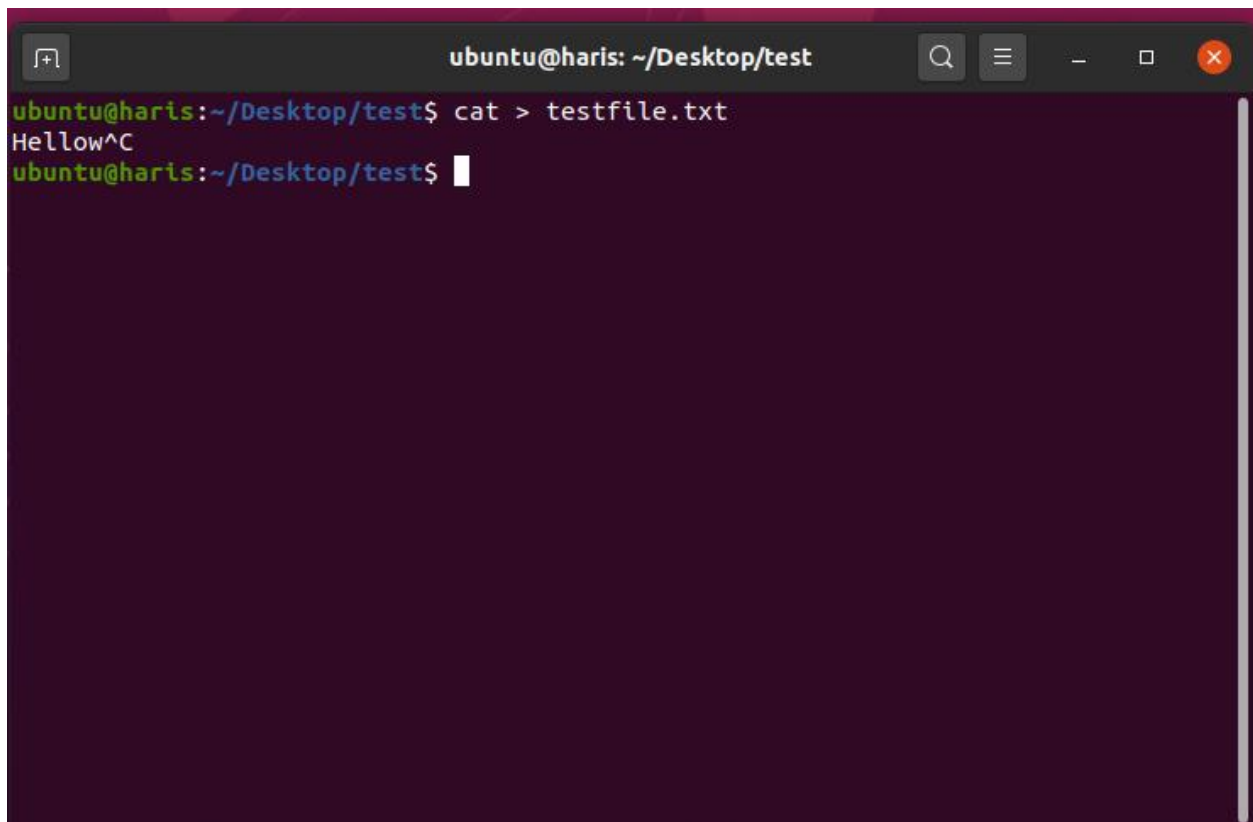
Question 1: Activity 1:

This activity is related to file permission. Perform the following tasks

1. Create a file "testfile.txt" in /test directory
2. View and read the file using Less command
3. Use wc command to print lines, words and bytes
4. Find any text pattern in the file using grep
5. Print the first 3 lines of the file using head
6. Print the last 3 lines of the file using tail

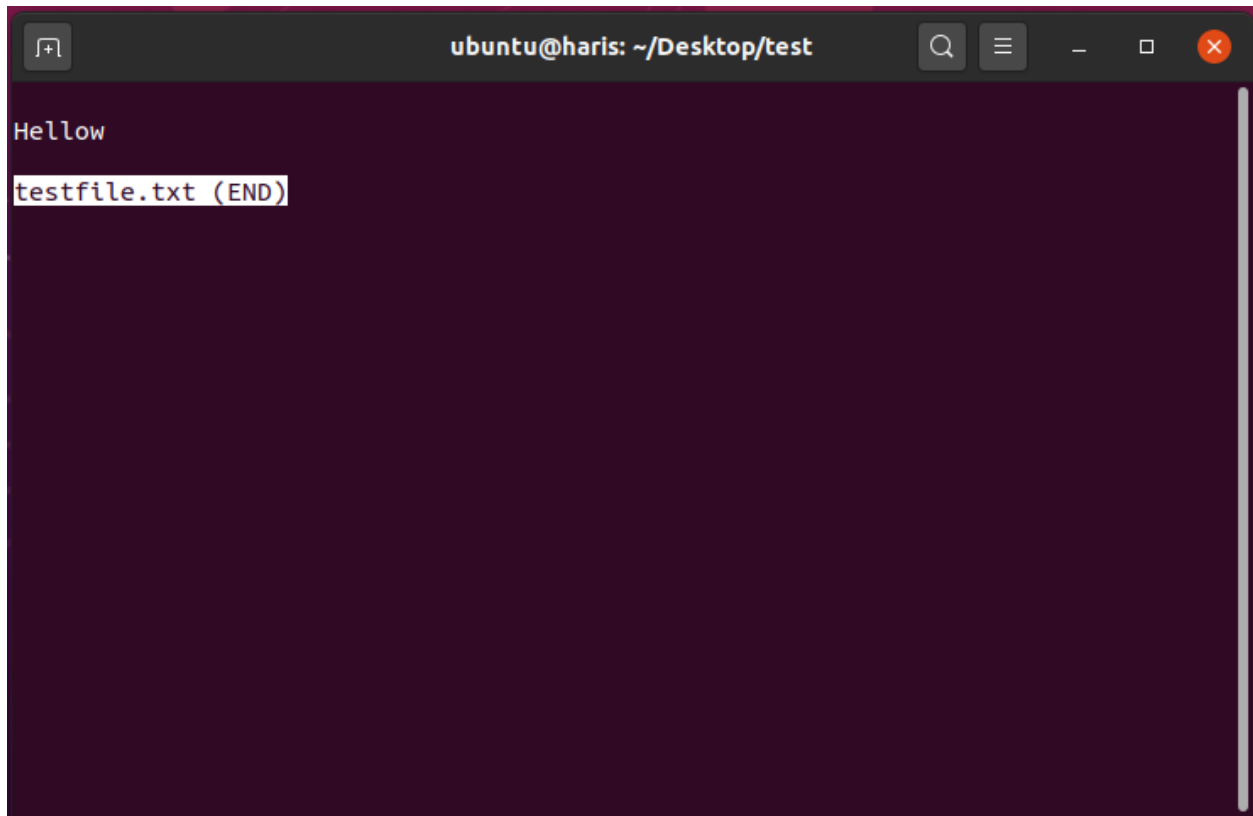
Solution:

1) The Terminal Output is given below,



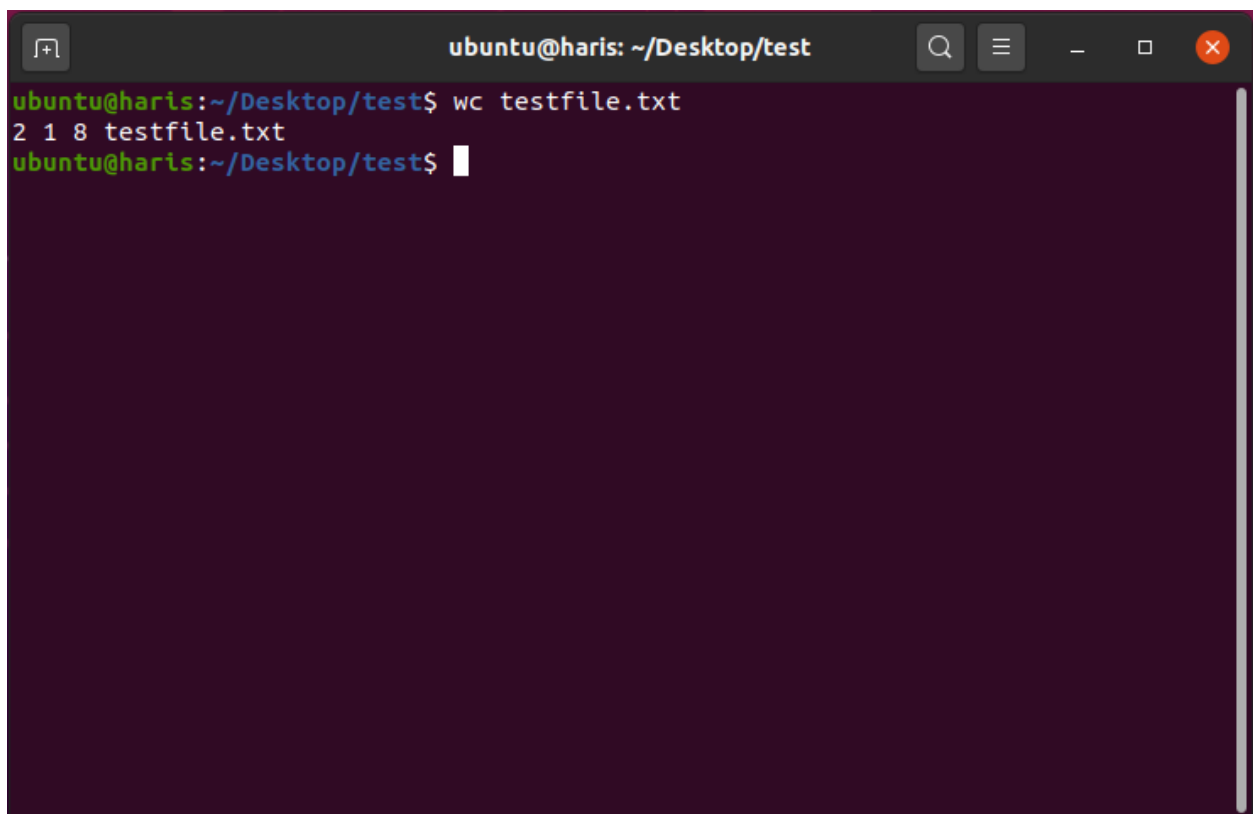
```
ubuntu@haris: ~/Desktop/test
ubuntu@haris:~/Desktop/test$ cat > testfile.txt
Hellow^C
ubuntu@haris:~/Desktop/test$
```

2) The Terminal Output is given below,

A terminal window titled 'ubuntu@haris: ~/Desktop/test' with search, menu, and window control icons. The terminal has a dark purple background. It displays the text 'Hellow' on the first line. The second line contains 'testfile.txt (END)', which is highlighted with a white selection box. A vertical scrollbar is visible on the right side of the terminal pane.

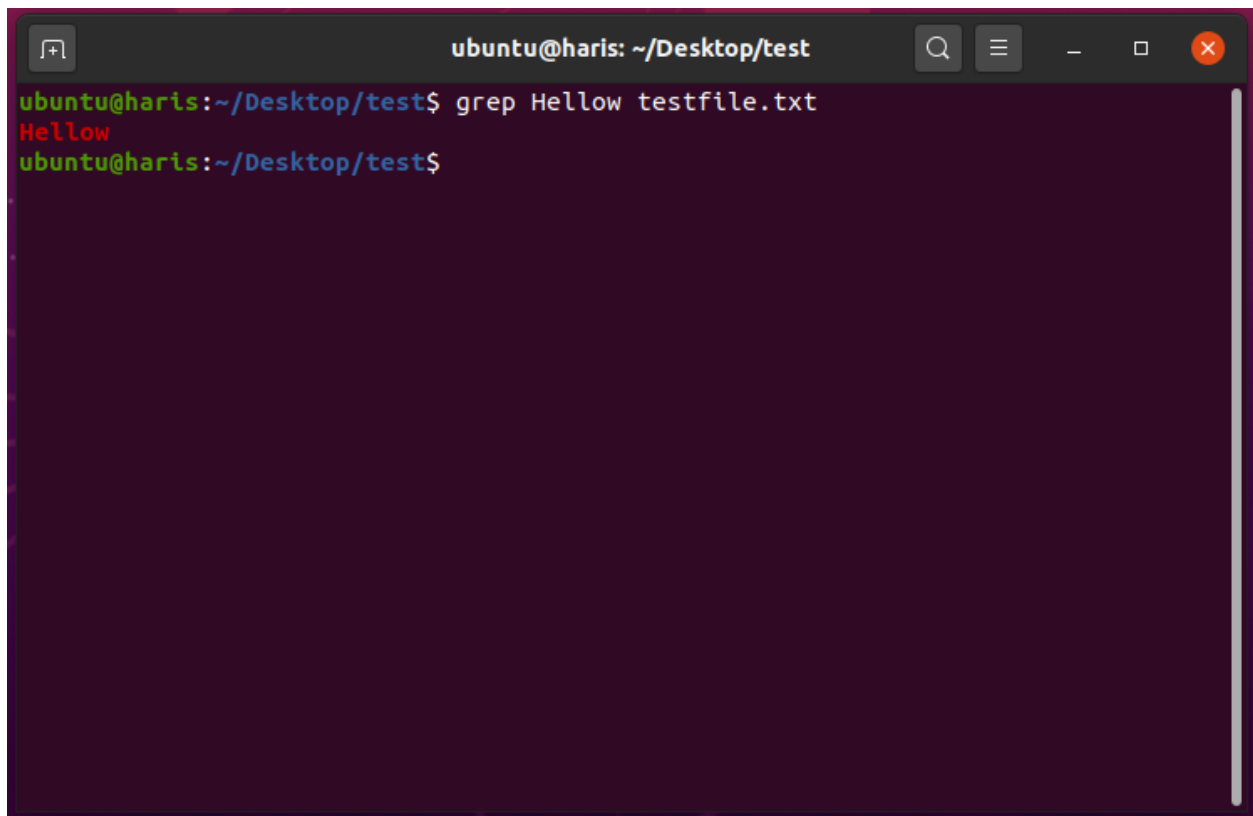
```
ubuntu@haris: ~/Desktop/test
Hellow
testfile.txt (END)
```

3) The Terminal Output is given below,

A terminal window titled 'ubuntu@haris: ~/Desktop/test' with search, menu, and window control icons. The terminal has a dark purple background. It shows the command 'wc testfile.txt' being executed, followed by the output '2 1 8 testfile.txt'. The prompt 'ubuntu@haris:~/Desktop/test\$' is visible at the end of the line.

```
ubuntu@haris:~/Desktop/test$ wc testfile.txt
2 1 8 testfile.txt
ubuntu@haris:~/Desktop/test$
```

4) The Terminal Output is given below,

A terminal window titled 'ubuntu@haris: ~/Desktop/test' with search, menu, and window control icons in the title bar. The terminal shows the command 'grep Hellow testfile.txt' being executed, which outputs 'Hellow' in red text. The prompt 'ubuntu@haris:~/Desktop/test\$' is visible on the next line.

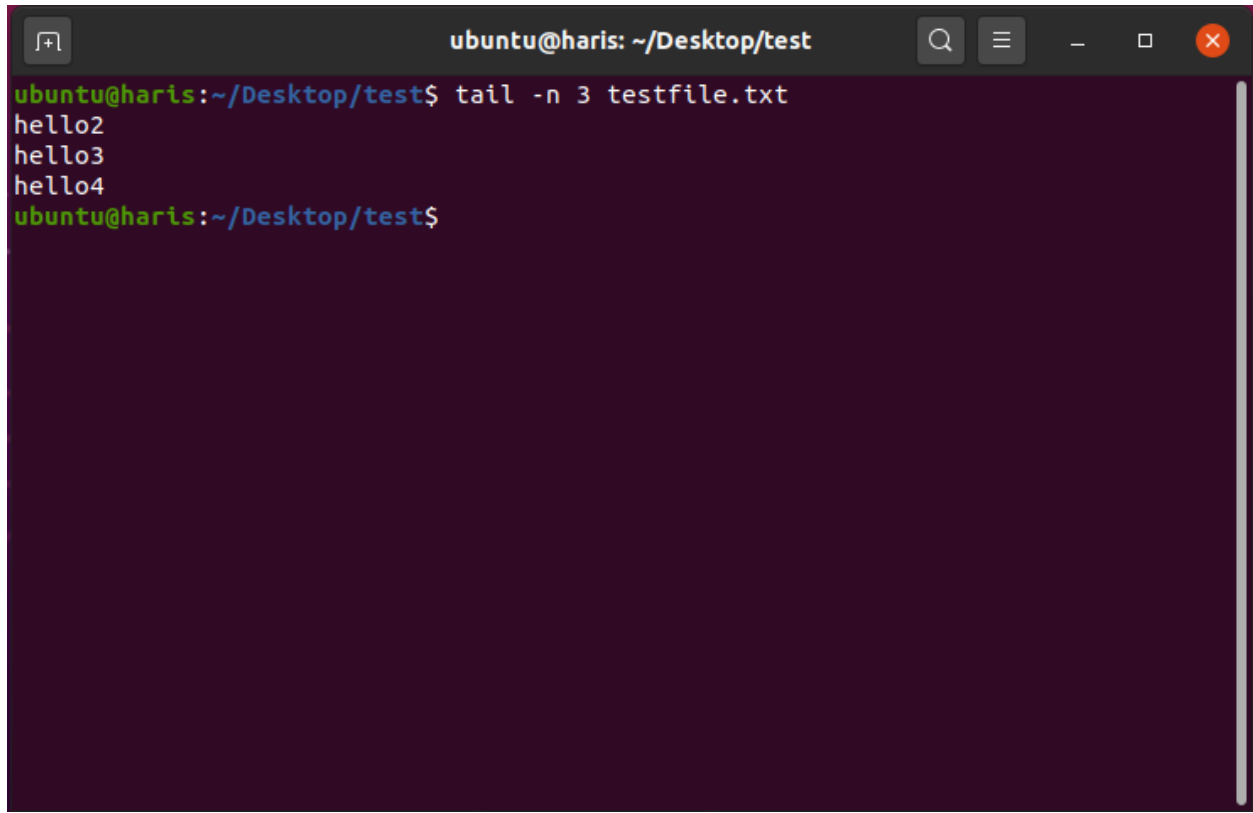
```
ubuntu@haris: ~/Desktop/test
ubuntu@haris:~/Desktop/test$ grep Hellow testfile.txt
Hellow
ubuntu@haris:~/Desktop/test$
```

5) The Terminal Output is given below,

A terminal window titled 'ubuntu@haris: ~/Desktop/test' with search, menu, and window control icons in the title bar. The terminal shows the command 'cat >> testfile.txt' being executed, followed by four lines of input: 'hello1', 'hello2', 'hello3', and 'hello4'. After a '^C^C' (Ctrl-C) signal, the command 'head -n 3 testfile.txt' is executed, outputting the first three lines: 'hello1', 'hello2', and 'hello3'. The prompt 'ubuntu@haris:~/Desktop/test\$' is visible at the end.

```
ubuntu@haris:~/Desktop/test$ cat >> testfile.txt
hello1
hello2
hello3
hello4
^C^C
ubuntu@haris:~/Desktop/test$ head -n 3 testfile.txt
hello1
hello2
hello3
ubuntu@haris:~/Desktop/test$
```

6) The Terminal Output is given below,

A terminal window titled 'ubuntu@haris: ~/Desktop/test' with standard window controls. The prompt is 'ubuntu@haris:~/Desktop/test\$'. The command 'tail -n 3 testfile.txt' has been executed, resulting in the output 'hello2', 'hello3', and 'hello4'. The prompt is now 'ubuntu@haris:~/Desktop/test\$'.

```
ubuntu@haris:~/Desktop/test$ tail -n 3 testfile.txt
hello2
hello3
hello4
ubuntu@haris:~/Desktop/test$
```

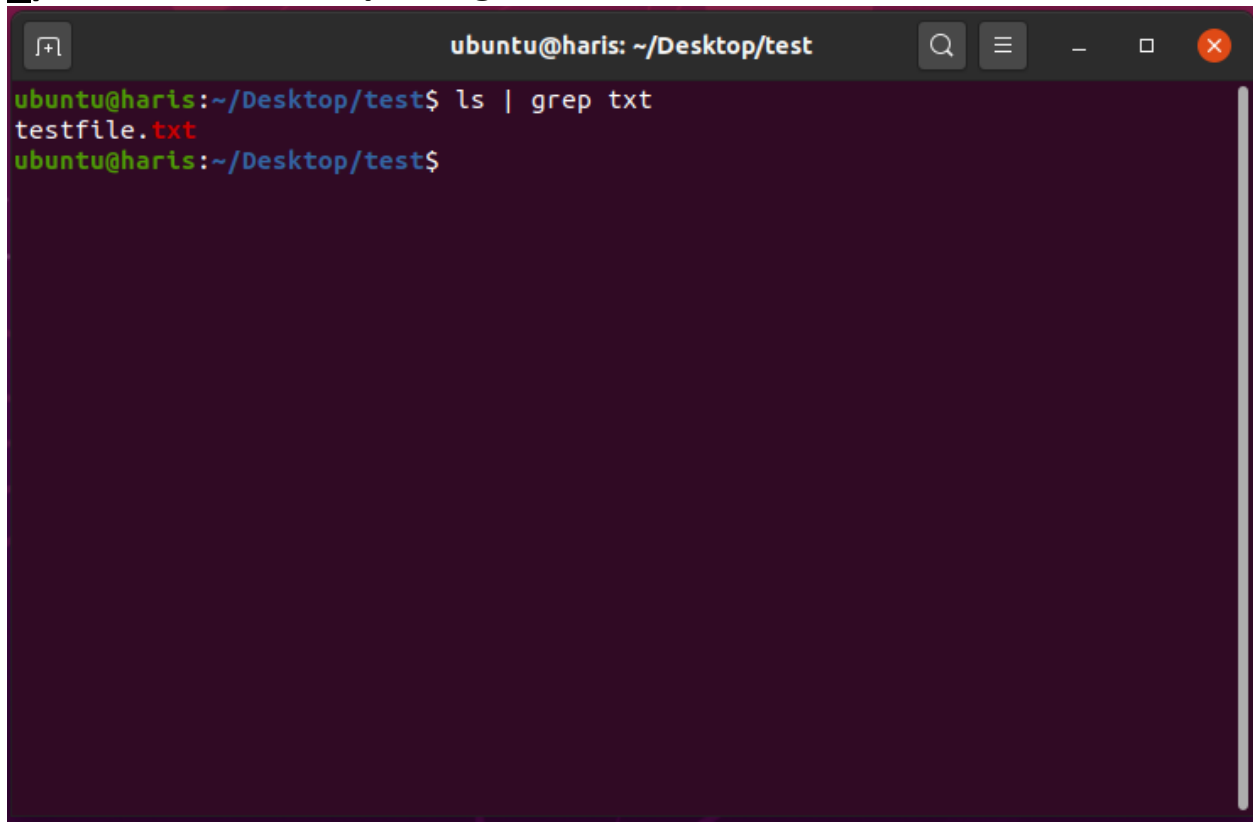
Question 2: Activity 2:

Perform the following tasks:

1. Find all the files with extension txt in the /test directory
2. Find the first line of the list of files in the /test directory
3. Find the last line of the list of files in the /test directory
4. Produce and view a single sorted list of files by combining two directories: /Desktop and /bin

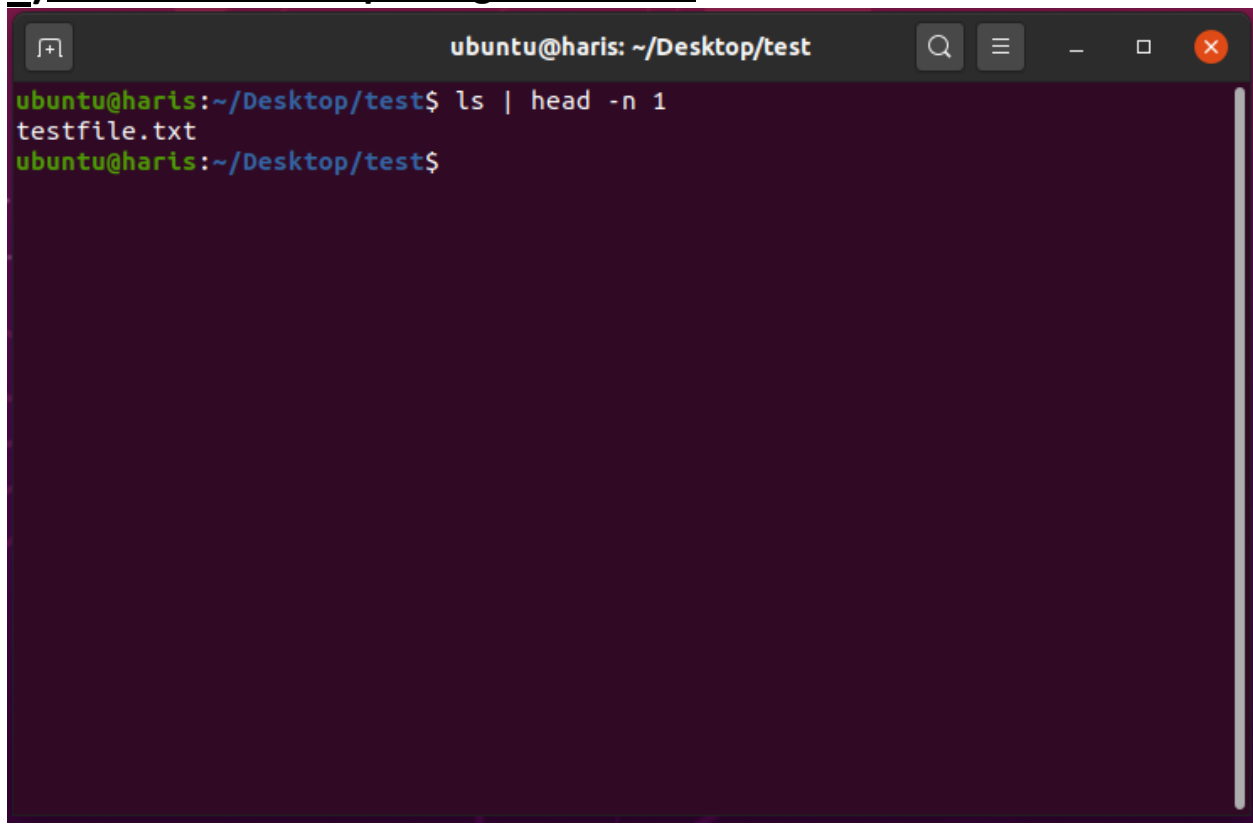
Solution:

1) The Terminal Output is given below,



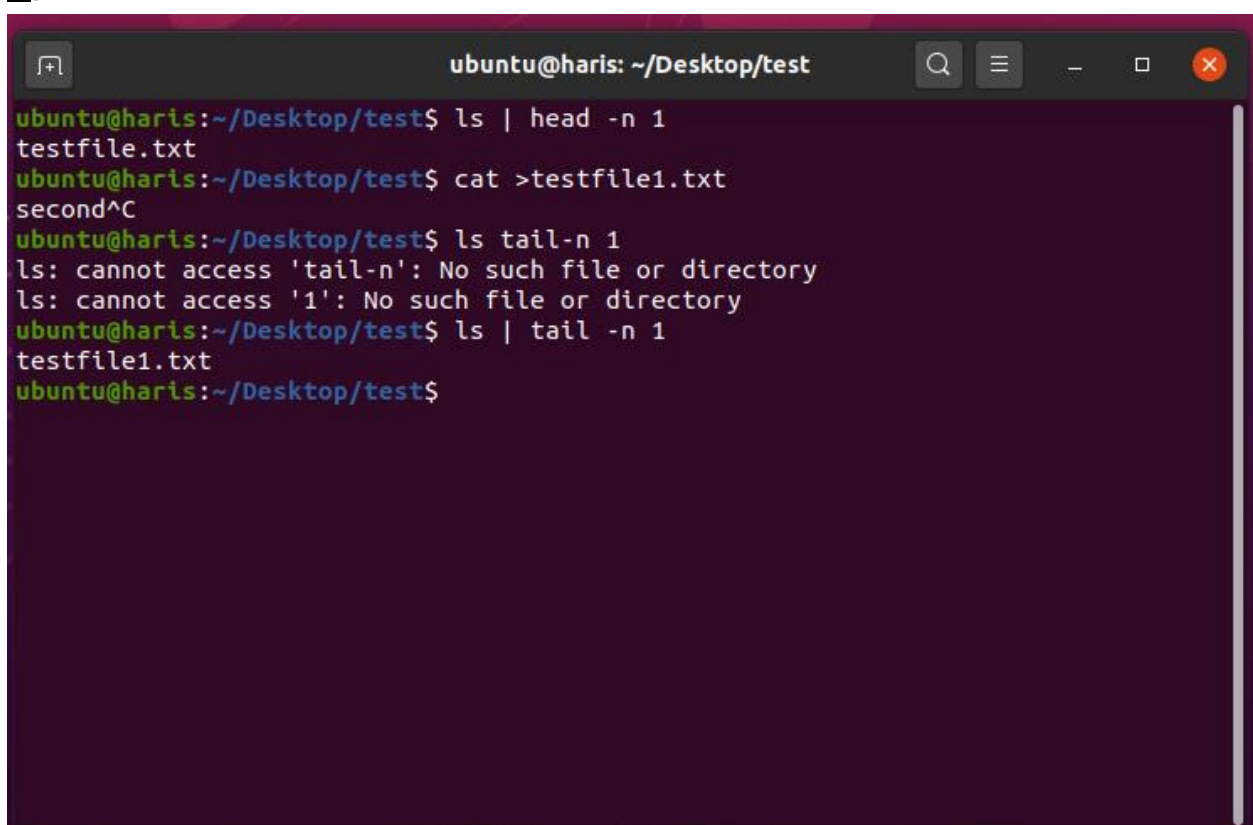
```
ubuntu@haris: ~/Desktop/test
ubuntu@haris:~/Desktop/test$ ls | grep txt
testfile.txt
ubuntu@haris:~/Desktop/test$
```

2) The Terminal Output is given below,



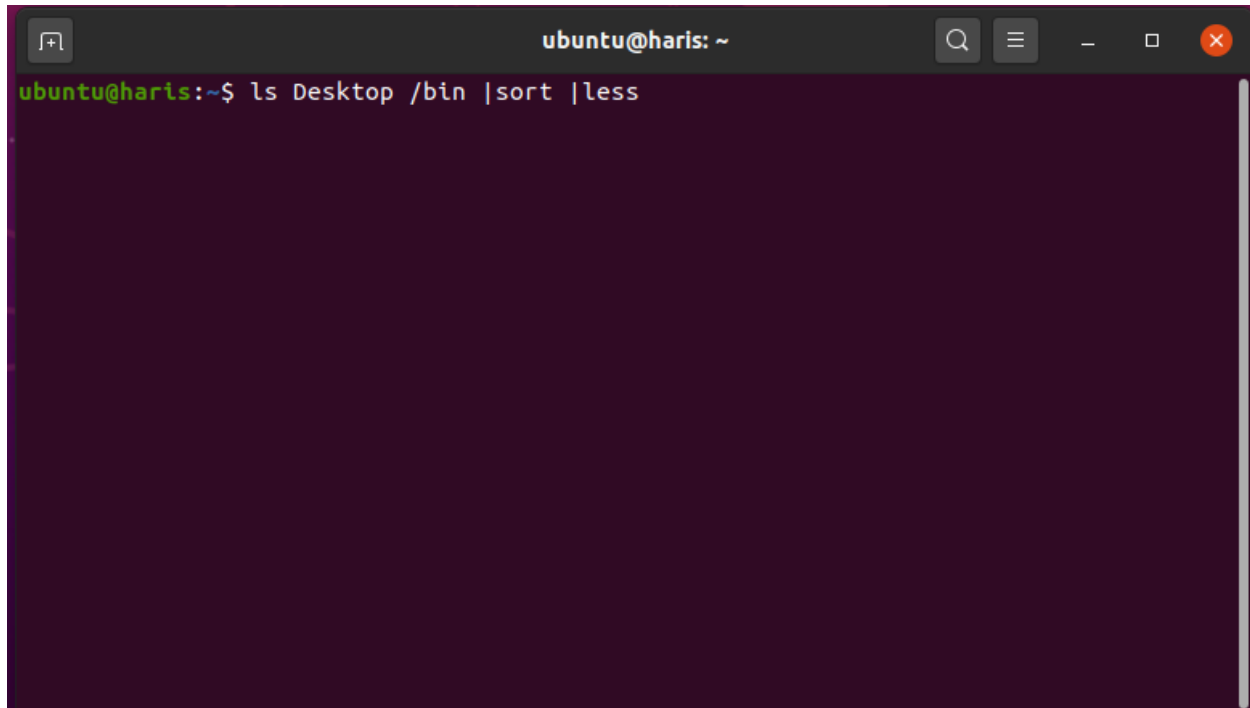
```
ubuntu@haris: ~/Desktop/test
ubuntu@haris:~/Desktop/test$ ls | head -n 1
testfile.txt
ubuntu@haris:~/Desktop/test$
```

3) The Terminal Output is given below,

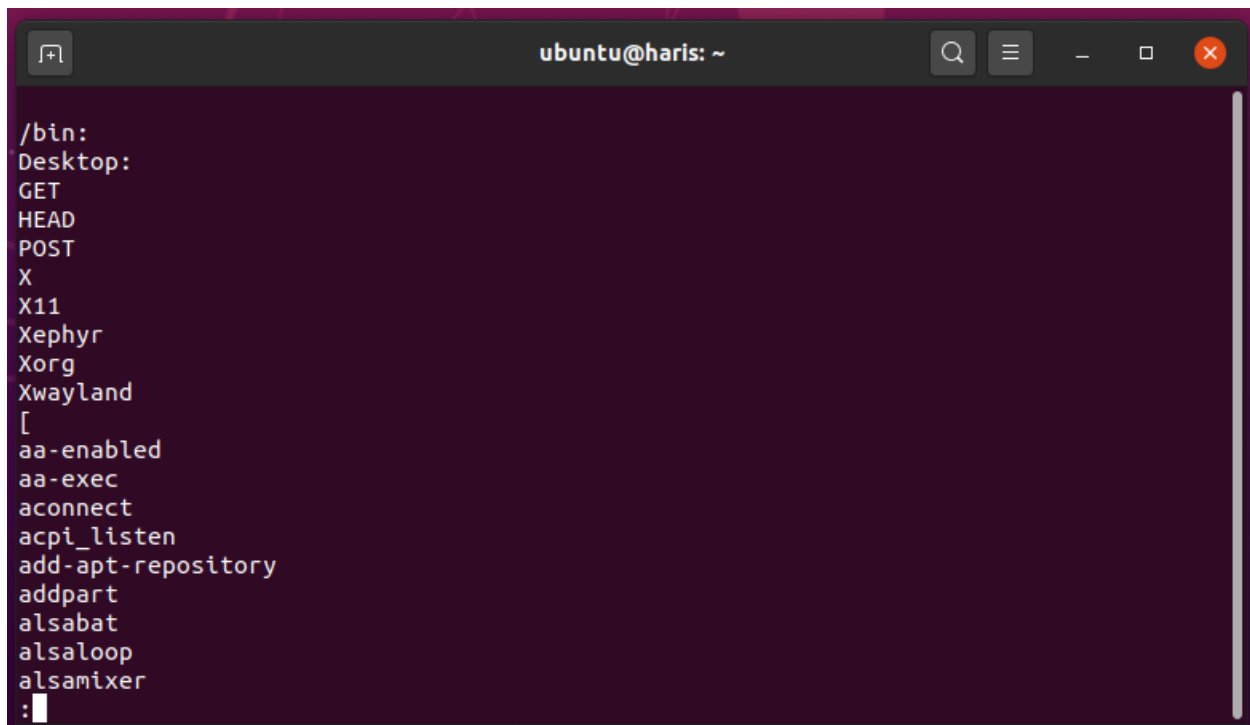


```
ubuntu@haris: ~/Desktop/test
ubuntu@haris:~/Desktop/test$ ls | head -n 1
testfile.txt
ubuntu@haris:~/Desktop/test$ cat >testfile1.txt
second^C
ubuntu@haris:~/Desktop/test$ ls tail-n 1
ls: cannot access 'tail-n': No such file or directory
ls: cannot access '1': No such file or directory
ubuntu@haris:~/Desktop/test$ ls | tail -n 1
testfile1.txt
ubuntu@haris:~/Desktop/test$
```

4) The Terminal Output is given below,



```
ubuntu@haris: ~  
ubuntu@haris:~$ ls Desktop /bin | sort | less
```



```
ubuntu@haris: ~  
/bin:  
Desktop:  
GET  
HEAD  
POST  
X  
X11  
Xephyr  
Xorg  
Xwayland  
[  
aa-enabled  
aa-exec  
aconnect  
acpi_listen  
add-apt-repository  
addpart  
alsabat  
alsaloop  
alsamixer  
:
```

THE END