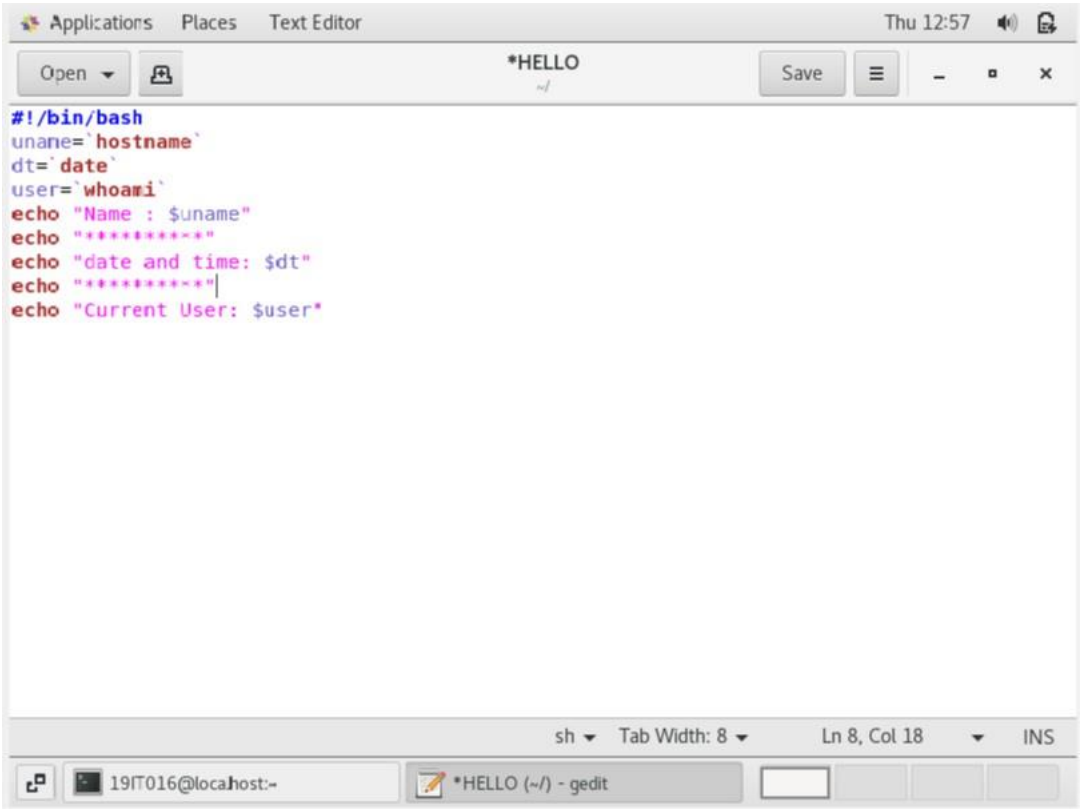
# PRACTICAL-5

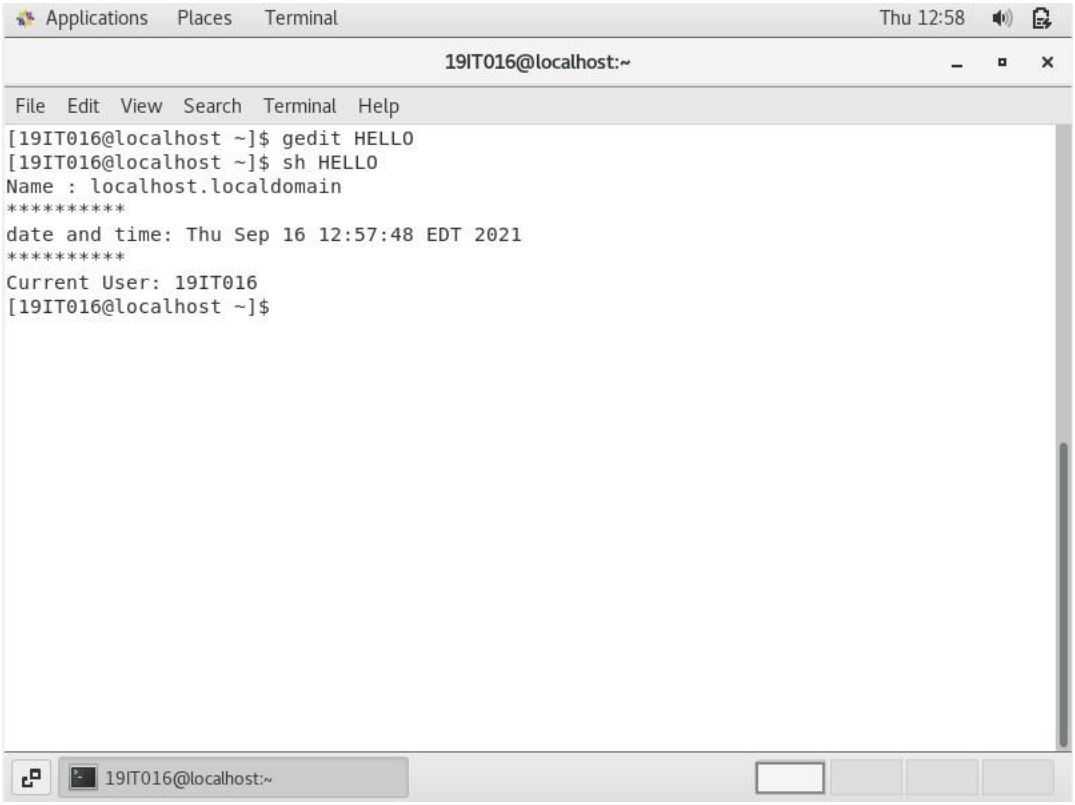
**Aim: To perform various shell programming tasks.**

1. **Write a script called hello which outputs the following:**
   a. **your username**
   b. **the time and date**
   c. **who is logged on?**
   d. **Also, output a line of asterisks (*********) after each section.**

**CODE:**

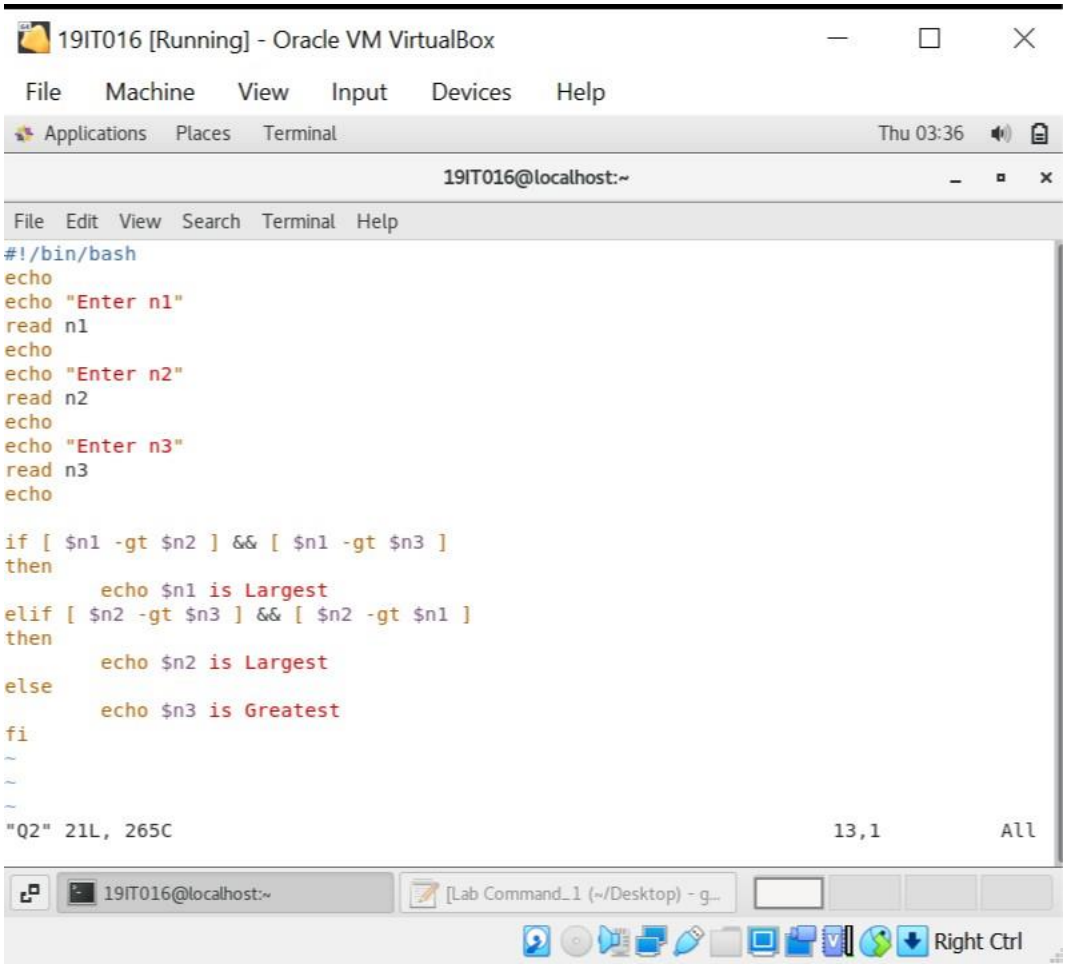


**OUTPUT:**

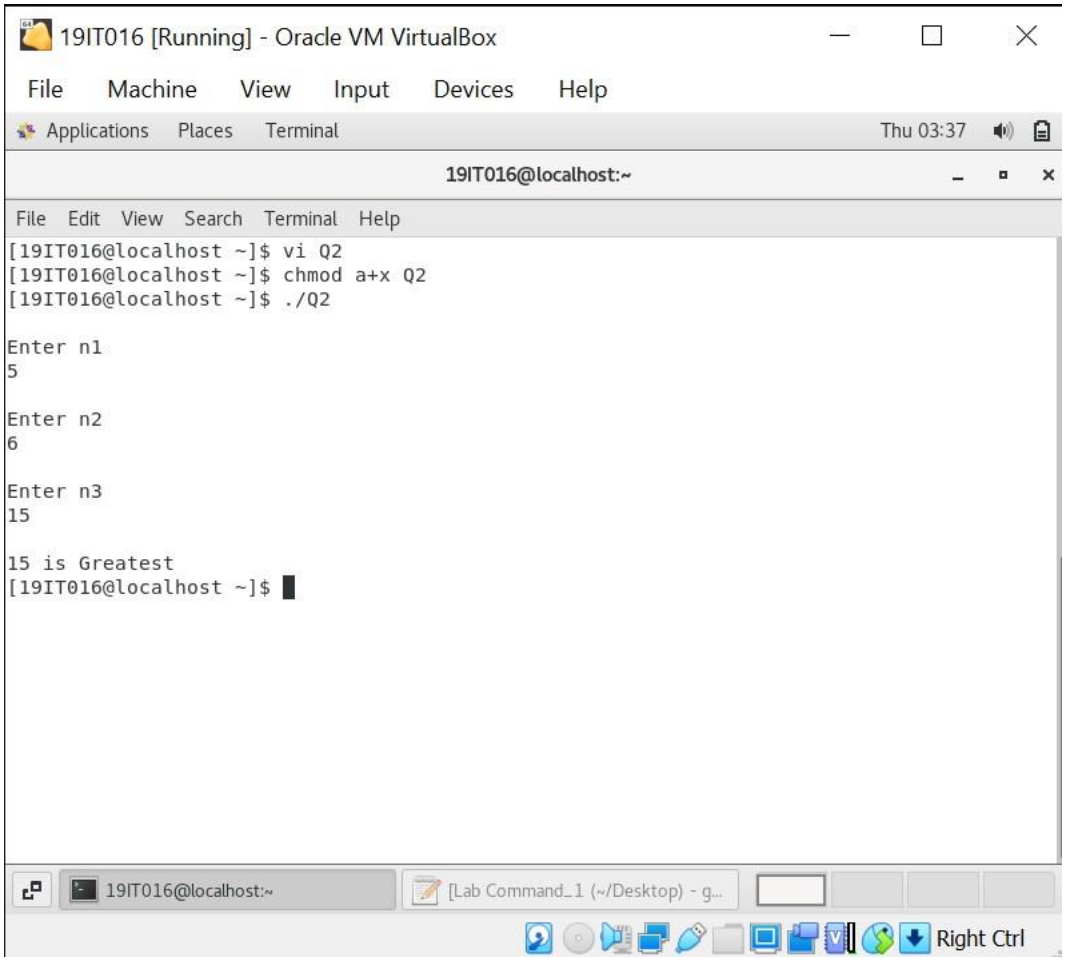

Applications
Places
Terminal
Thu 12:58
19IT016@localhost:~
File Edit View Search Terminal Help
[19IT016@localhost ~]$ gedit HELLO
[19IT016@localhost ~]$ sh HELLO
Name : localhost.localdomain
**********
date and time: Thu Sep 16 12:57:48 EDT 2021
**********
Current User: 19IT016
[19IT016@localhost ~]$
19IT016@localhost:~

2. **Write a shell program to find the largest integer among the three integers given as arguments.**

**CODE:**

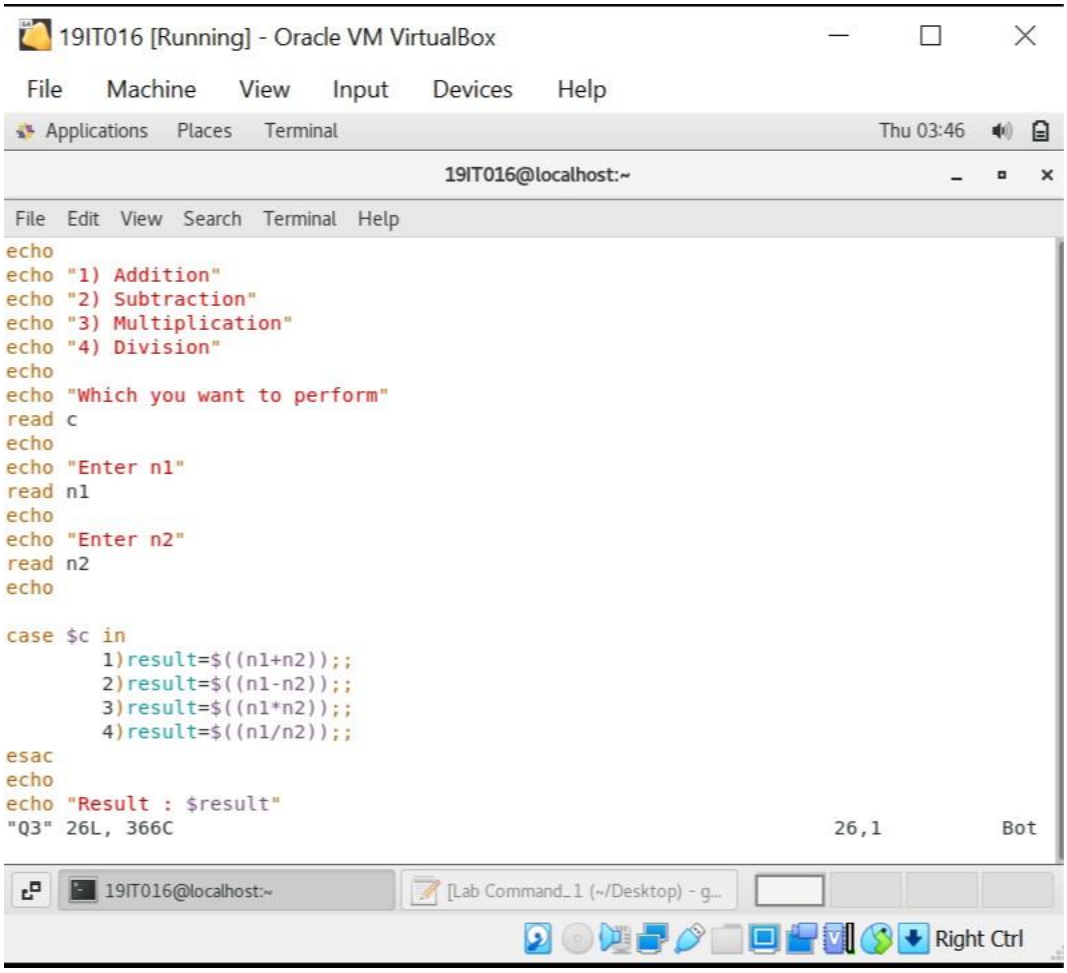


**OUTPUT:**

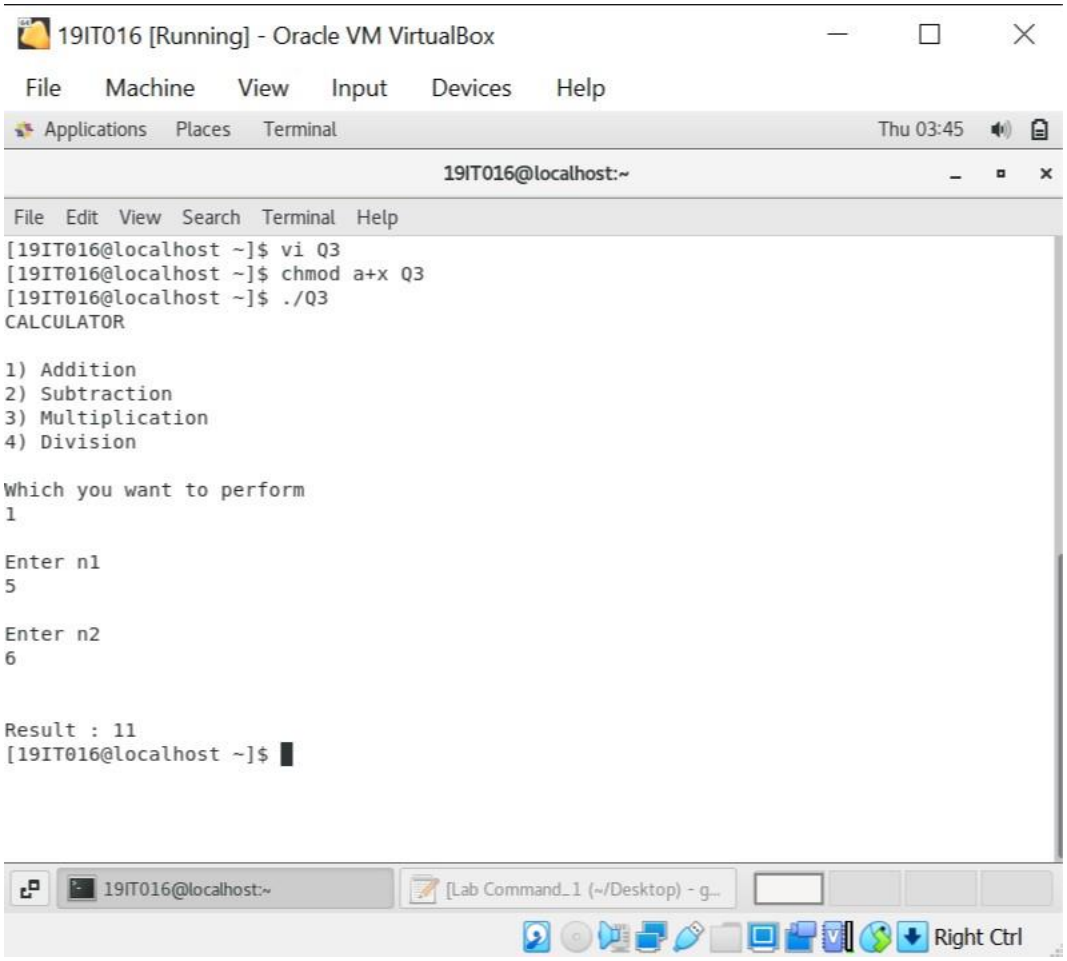

19IT016 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
Applications Places Terminal
Thu 03:37
19IT016@localhost:~
File Edit View Search Terminal Help
[19IT016@localhost ~]$ vi Q2
[19IT016@localhost ~]$ chmod a+x Q2
[19IT016@localhost ~]$ ./Q2
Enter n1
5
Enter n2
6
Enter n3
15
15 is Greatest
[19IT016@localhost ~]$
19IT016@localhost:~
[Lab Command_1 (~/Desktop) - g...
Right Ctrl

3. **Write a shell script to simulate a simple calculator.**

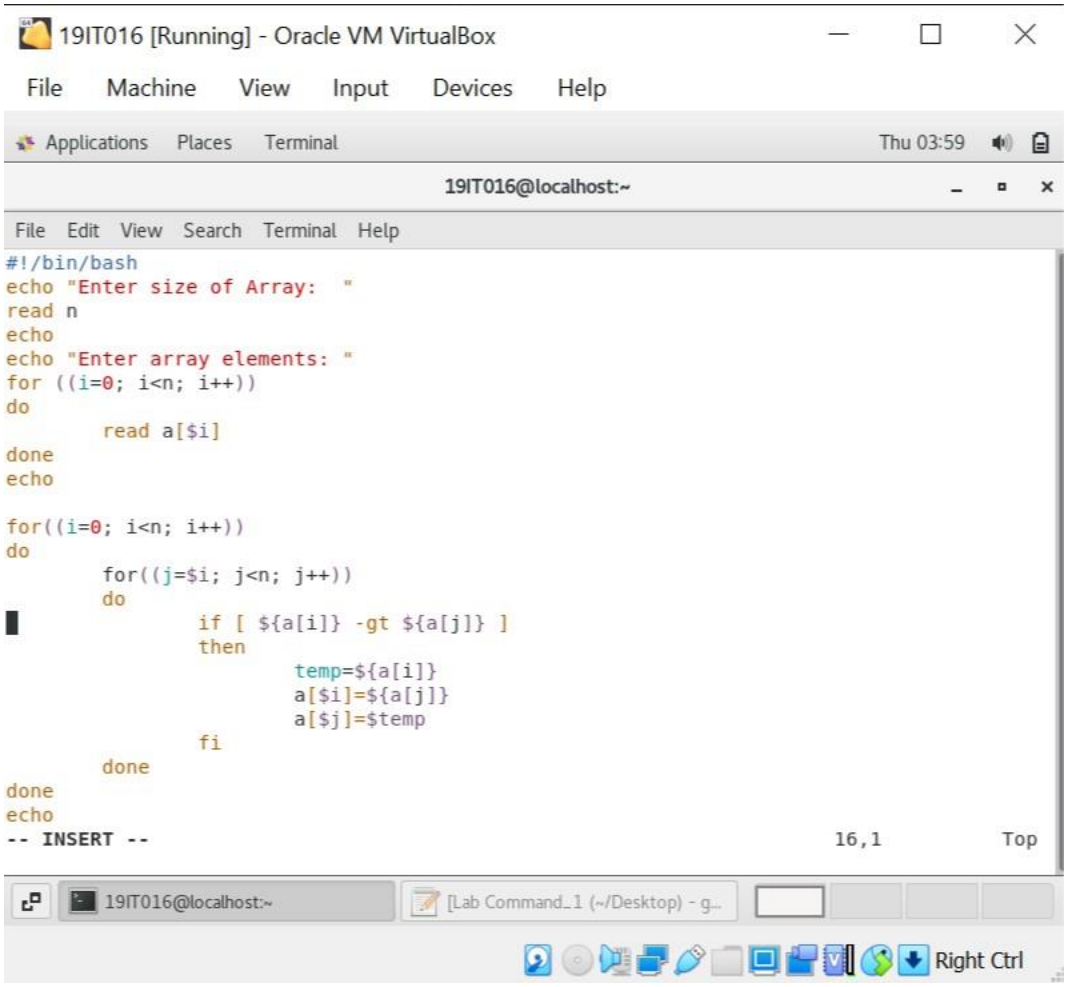
**CODE:**

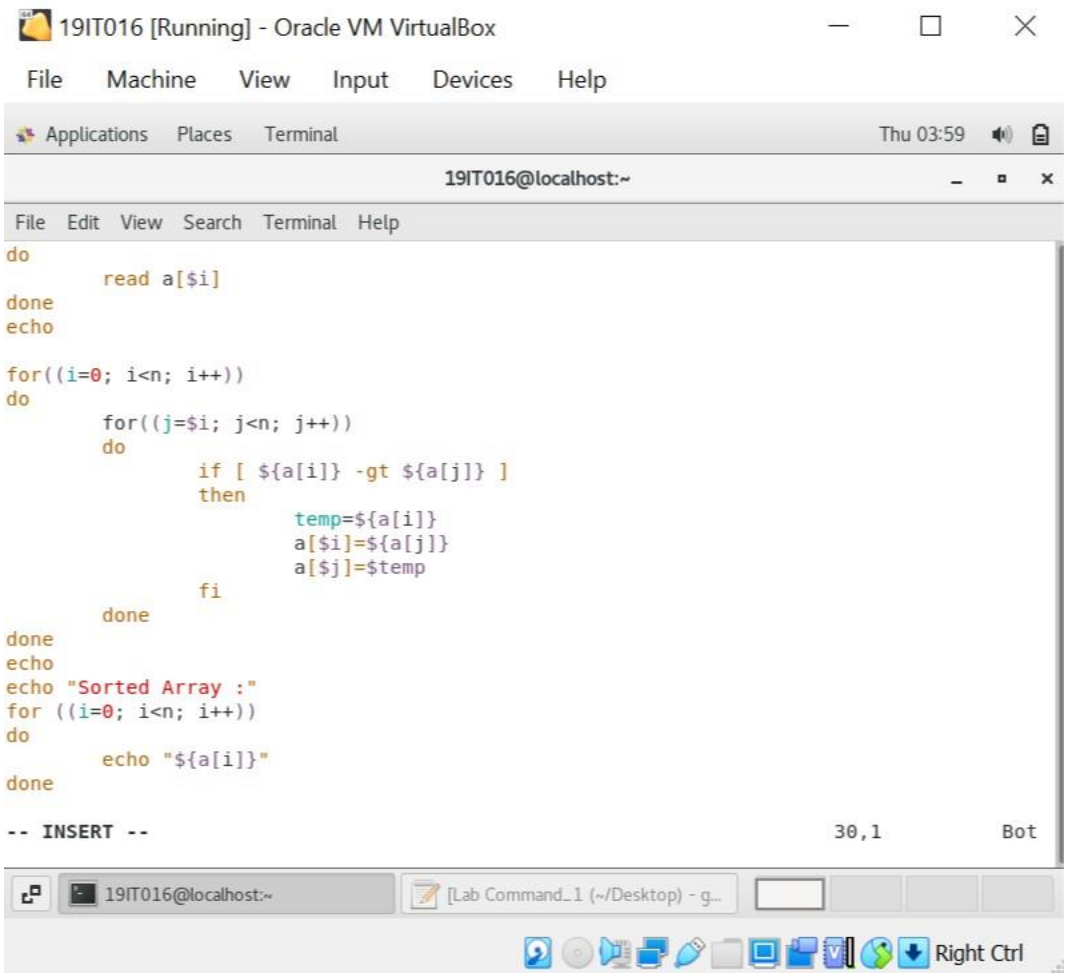


**OUTPUT:**

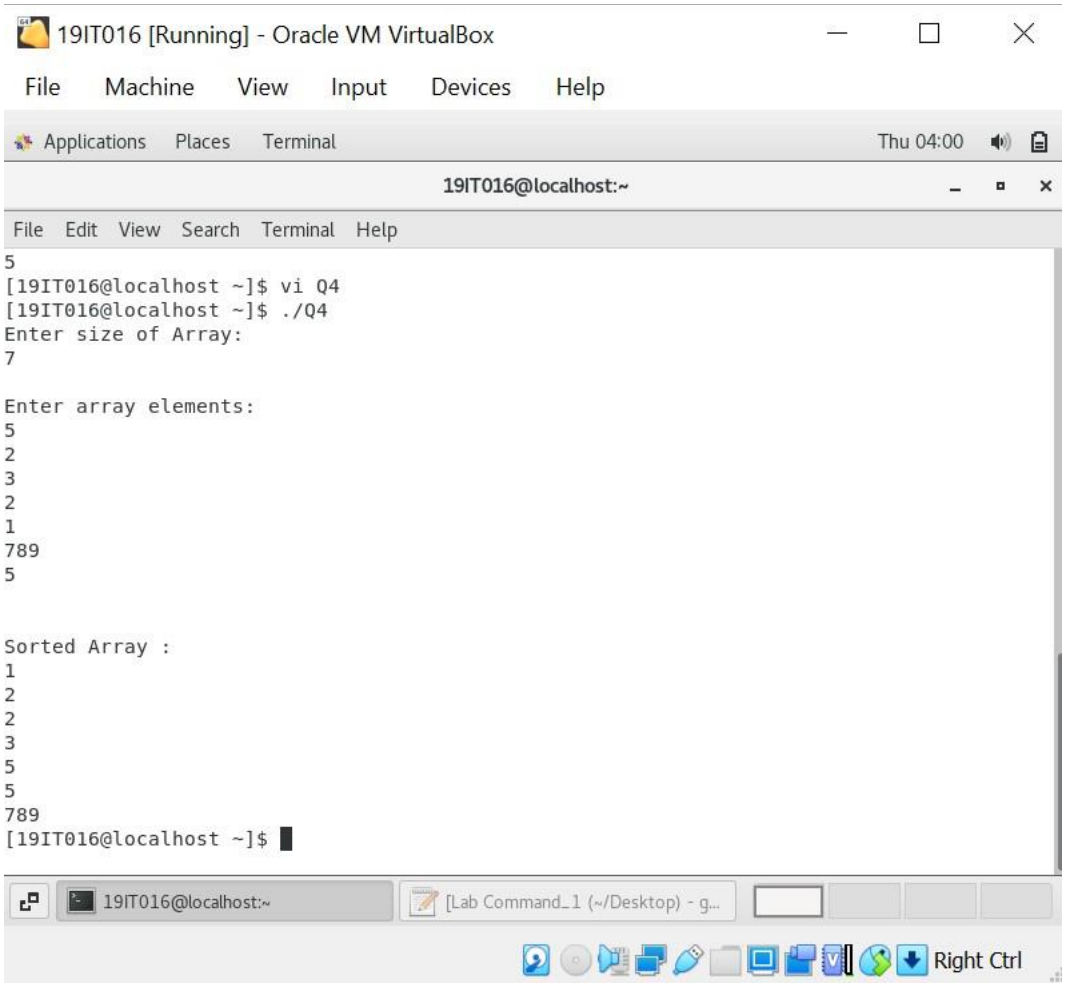

19IT016 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
Applications Places Terminal
Thu 03:45
19IT016@localhost:~
File Edit View Search Terminal Help
[19IT016@localhost ~]$ vi Q3
[19IT016@localhost ~]$ chmod a+x Q3
[19IT016@localhost ~]$ ./Q3
CALCULATOR
1) Addition
2) Subtraction
3) Multiplication
4) Division
Which you want to perform
1
Enter n1
5
Enter n2
6
Result : 11
[19IT016@localhost ~]$
19IT016@localhost:~
[Lab Command_1 (~/Desktop) - g...
Right Ctrl

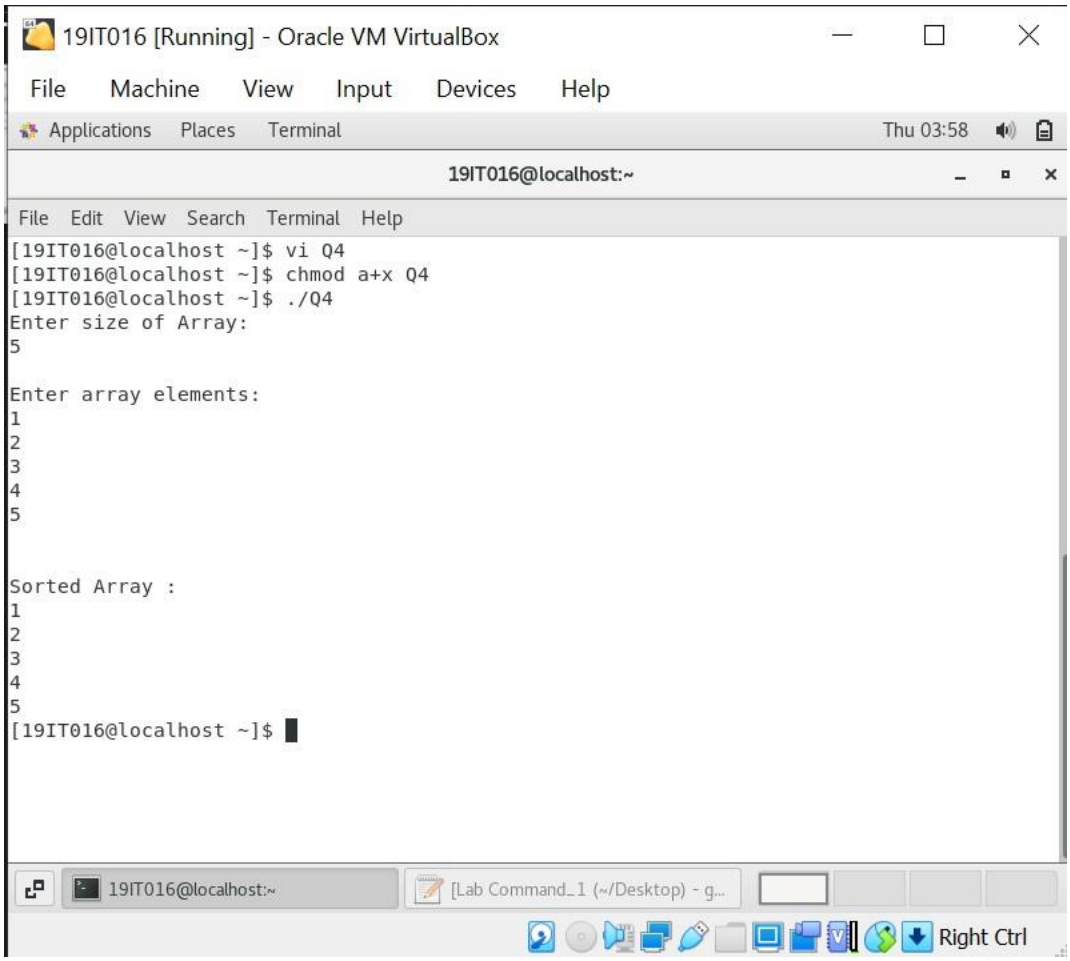
4. **Write a shell script to sort the number in ascending order and also calculate the shell script run time. (Using array).**
   **CODE:**




19IT016 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
Applications Places Terminal
Thu 03:59
19IT016@localhost:~
File Edit View Search Terminal Help
do
read a[$i]
done
echo
for((i=0; i<n; i++))
do
for((j=$i; j<n; j++))
do
if [ ${a[i]} -gt ${a[j]} ]
then
temp=${a[i]}
a[$i]=${a[j]}
a[$j]=$temp
fi
done
done
echo
echo "Sorted Array :"
for ((i=0; i<n; i++))
do
echo "${a[i]}"
done
-- INSERT -- 30,1 Bot
19IT016@localhost:~
[Lab Command_1 (~/Desktop) - g...
Right Ctrl

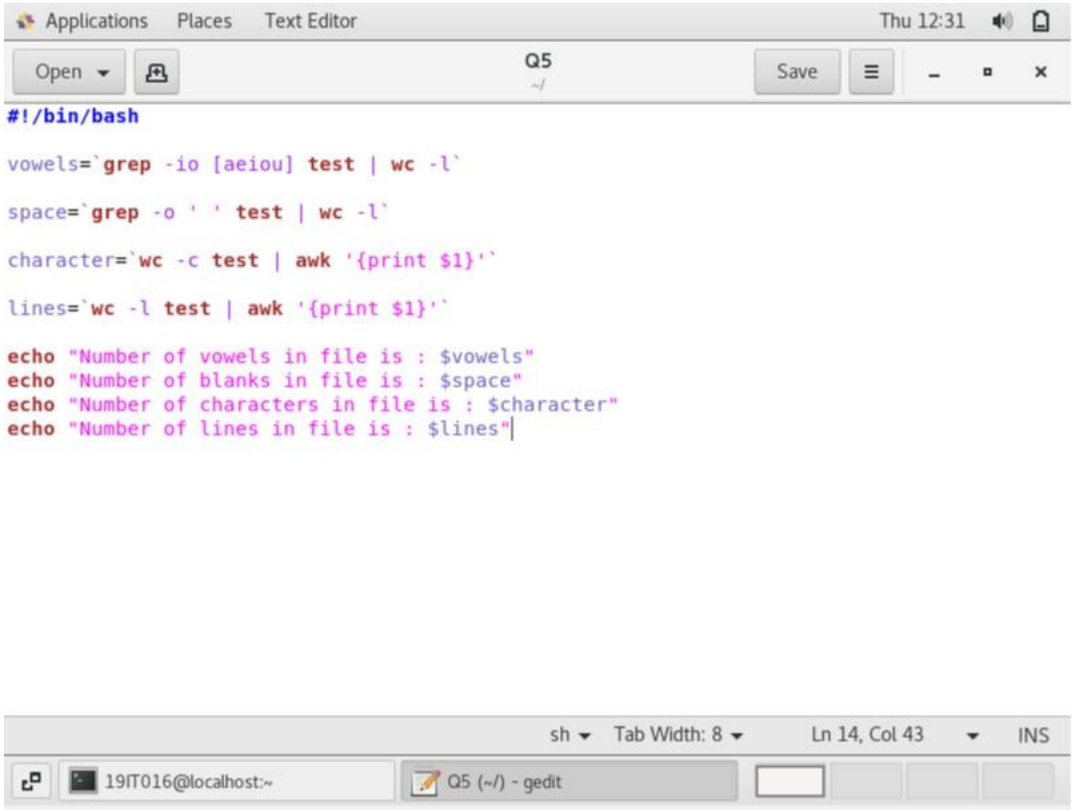
**OUTPUT:**

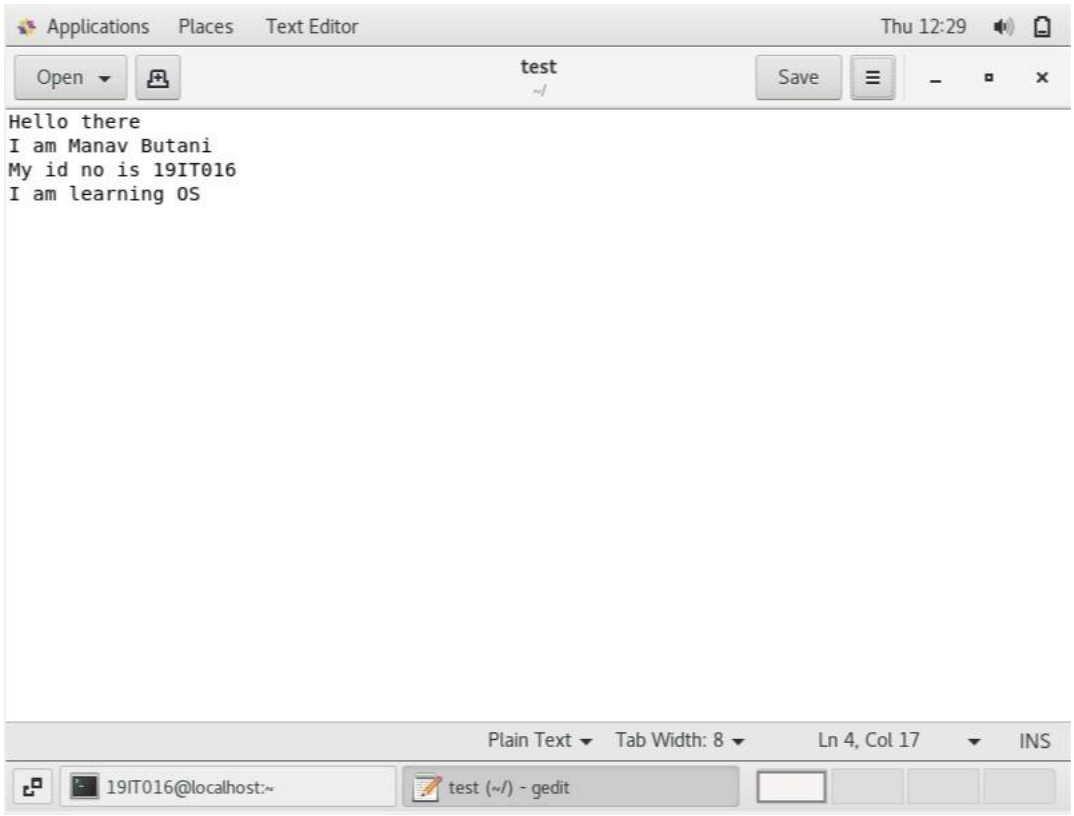

19IT016 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
Applications Places Terminal
Thu 04:00
19IT016@localhost:~
File Edit View Search Terminal Help
5
[19IT016@localhost ~]$ vi Q4
[19IT016@localhost ~]$ ./Q4
Enter size of Array:
7
Enter array elements:
5
2
3
2
1
789
5
Sorted Array :
1
2
2
3
5
5
789
[19IT016@localhost ~]$
19IT016@localhost:~
[Lab Command_1 (~/Desktop) - g...
Right Ctrl


19IT016 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
Applications Places Terminal
Thu 03:58
19IT016@localhost:~
File Edit View Search Terminal Help
[19IT016@localhost ~]$ vi Q4
[19IT016@localhost ~]$ chmod a+x Q4
[19IT016@localhost ~]$ ./Q4
Enter size of Array:
5
Enter array elements:
1
2
3
4
5
Sorted Array :
1
2
3
4
5
[19IT016@localhost ~]$
19IT016@localhost:~
[Lab Command_1 (~/Desktop) - g...
Right Ctrl

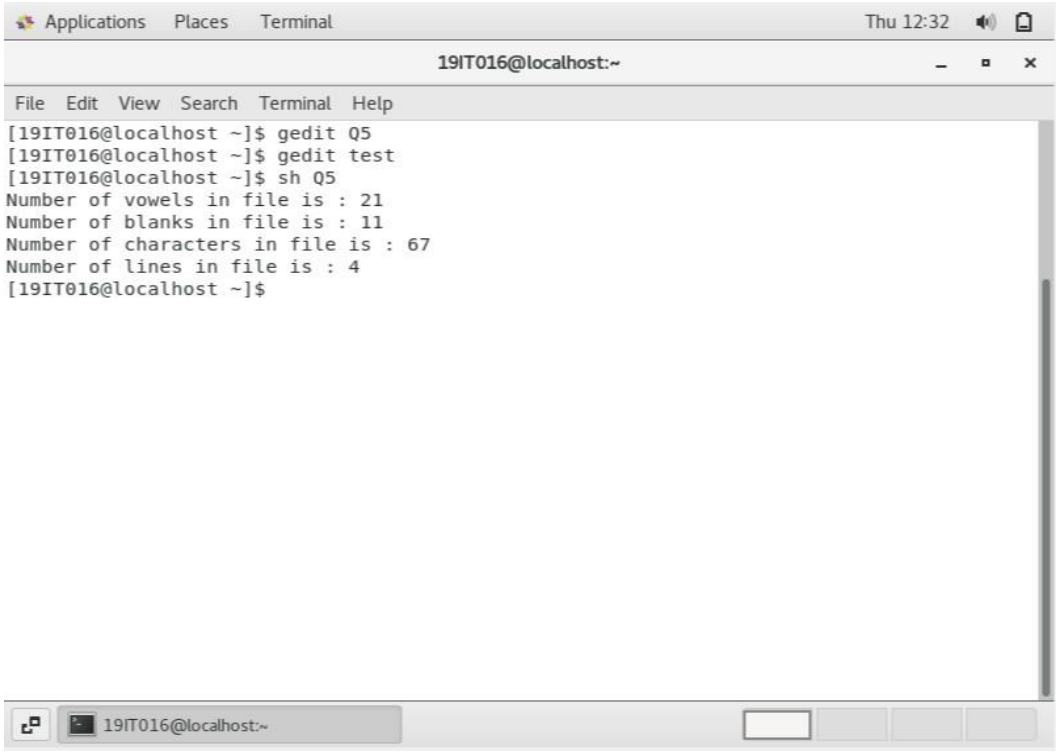
5. **Write a shell program to count the following in a text file:**
   a. **The number of vowels in a given text file.**
   b. **The number of blank spaces.**
   c. **The number of characters.**
   d. **The number of symbols.**
   e. **The number of lines.**

**CODE:**



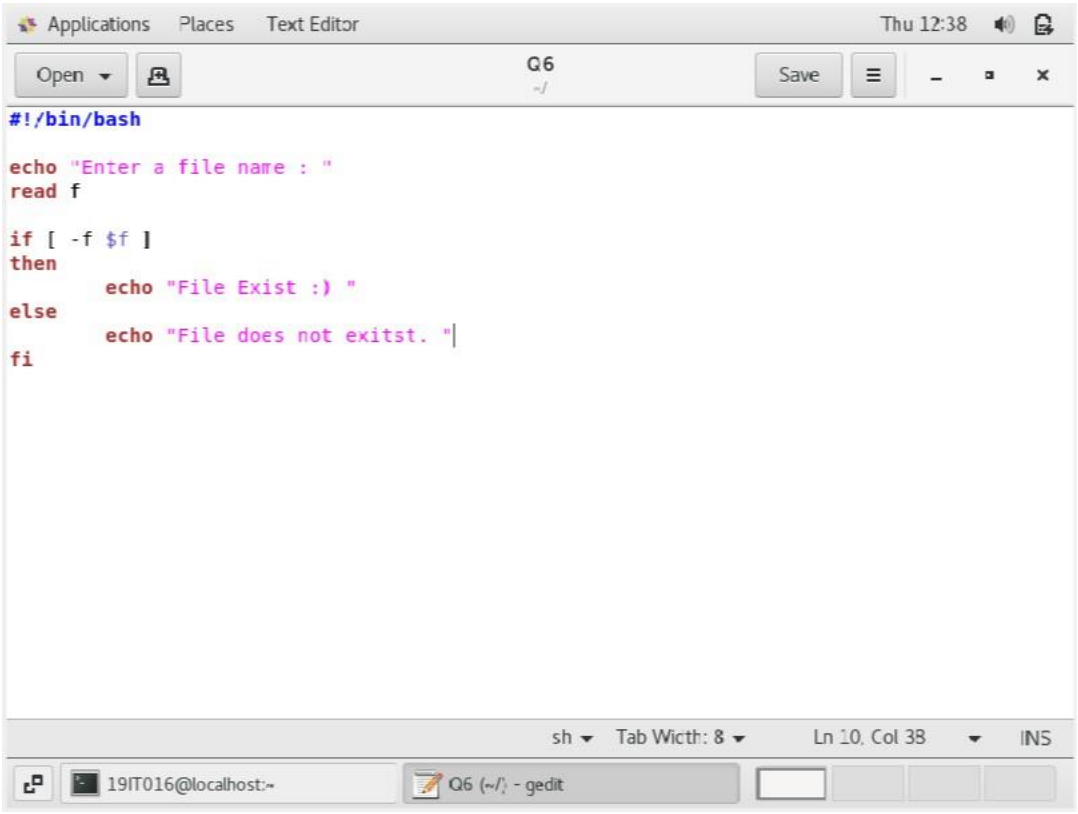

Applications Places Text Editor Thu 12:29
Open
test
~/
Save
Hello there
I am Manav Butani
My id no is 19IT016
I am learning OS
Plain Text Tab Width: 8 Ln 4, Col 17 INS
19IT016@localhost:~
test (~/) - gedit

**OUTPUT:**

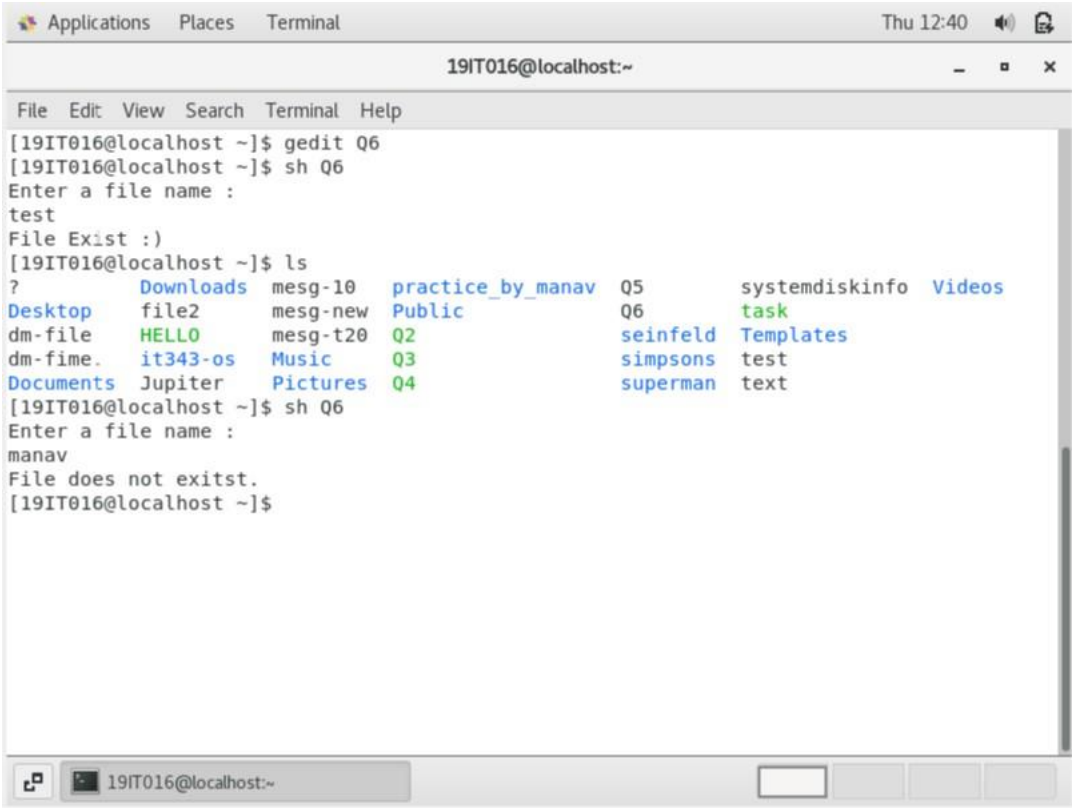

Applications Places Terminal Thu 12:32
19IT016@localhost:~
File Edit View Search Terminal Help
[19IT016@localhost ~]$ gedit Q5
[19IT016@localhost ~]$ gedit test
[19IT016@localhost ~]$ sh Q5
Number of vowels in file is : 21
Number of blanks in file is : 11
Number of characters in file is : 67
Number of lines in file is : 4
[19IT016@localhost ~]$
19IT016@localhost:~

6. **Write a shell script that will take a file name from the user and finds that whether the file is there or not in a current working directory and displays the appropriate message.**

**CODE:**

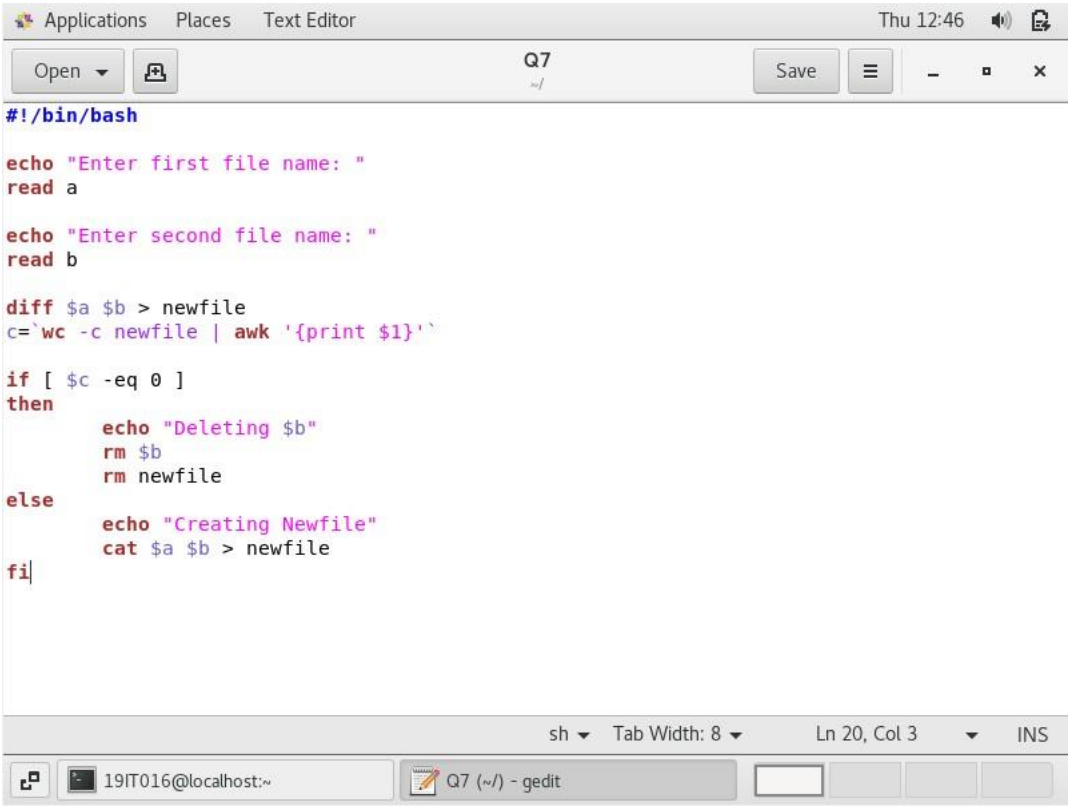


**OUTPUT:**

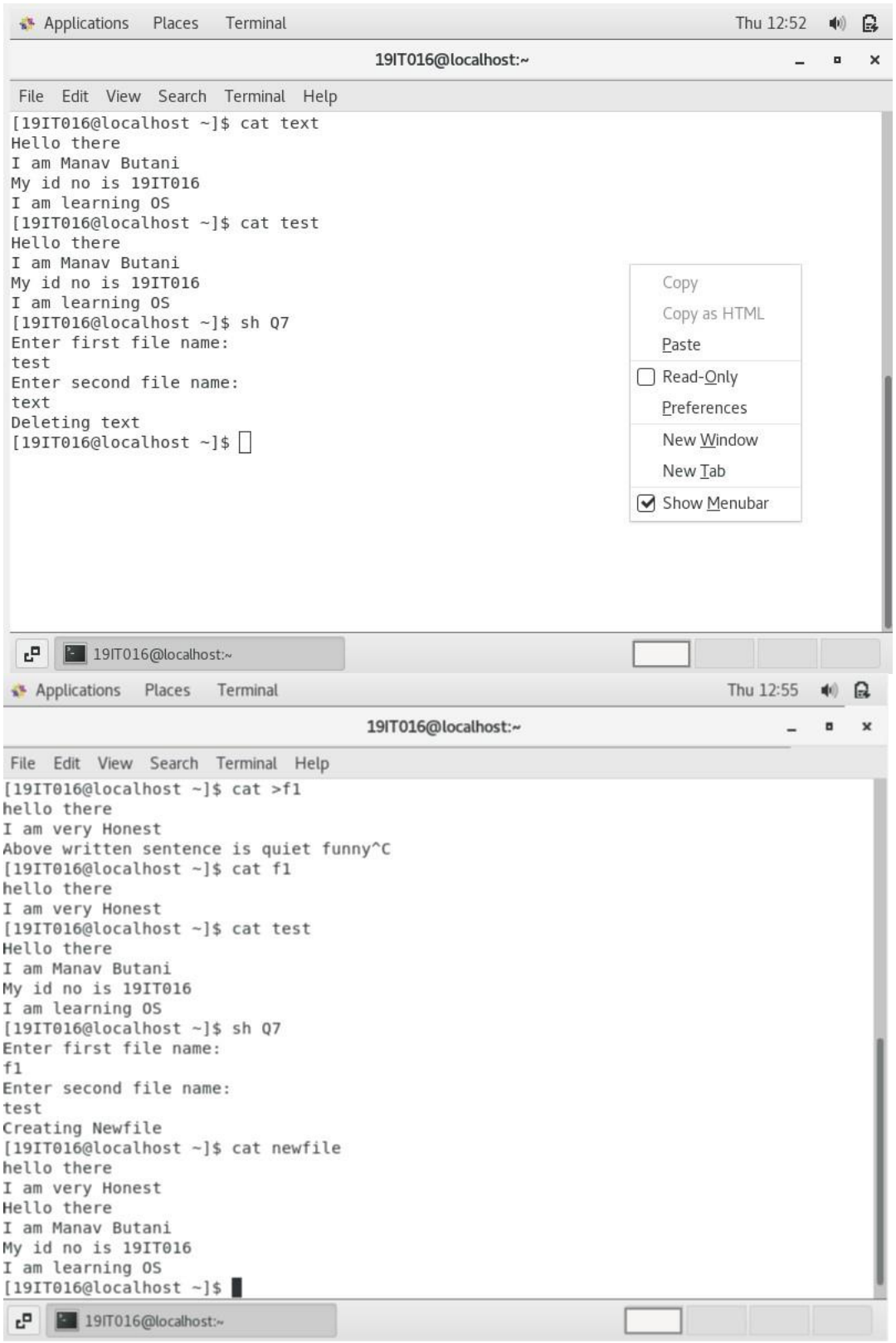

Applications Places Terminal Thu 12:40
19IT016@localhost:~
File Edit View Search Terminal Help
[19IT016@localhost ~]$ gedit Q6
[19IT016@localhost ~]$ sh Q6
Enter a file name :
test
File Exist :)
[19IT016@localhost ~]$ ls
? Downloads mesg-10 practice_by_manav Q5 systemdiskinfo Videos
Desktop file2 mesg-new Public Q6 task
dm-file HELLO mesg-t20 Q2 seinfeld Templates
dm-fime. it343-os Music Q3 simpsons test
Documents Jupiter Pictures Q4 superman text
[19IT016@localhost ~]$ sh Q6
Enter a file name :
manav
File does not exitst.
[19IT016@localhost ~]$
19IT016@localhost:~

7. **Write a shell script that compares two files given by the user and if both files are the same then delete the second one, if not then merge the two files in a new file.**

**CODE:**



**OUTPUT:**


Applications Places Terminal Thu 12:52
19IT016@localhost:~
File Edit View Search Terminal Help
[19IT016@localhost ~]$ cat text
Hello there
I am Manav Butani
My id no is 19IT016
I am learning OS
[19IT016@localhost ~]$ cat test
Hello there
I am Manav Butani
My id no is 19IT016
I am learning OS
[19IT016@localhost ~]$ sh Q7
Enter first file name:
test
Enter second file name:
text
Deleting text
[19IT016@localhost ~]$
Copy
Copy as HTML
Paste
Read-Only
Preferences
New Window
New Tab
Show Menubar
19IT016@localhost:~
Applications Places Terminal Thu 12:55
19IT016@localhost:~
File Edit View Search Terminal Help
[19IT016@localhost ~]$ cat >f1
hello there
I am very Honest
Above written sentence is quiet funny^C
[19IT016@localhost ~]$ cat f1
hello there
I am very Honest
[19IT016@localhost ~]$ cat test
Hello there
I am Manav Butani
My id no is 19IT016
I am learning OS
[19IT016@localhost ~]$ sh Q7
Enter first file name:
f1
Enter second file name:
test
Creating Newfile
[19IT016@localhost ~]$ cat newfile
hello there
I am very Honest
Hello there
I am Manav Butani
My id no is 19IT016
I am learning OS
[19IT016@localhost ~]$
19IT016@localhost:~