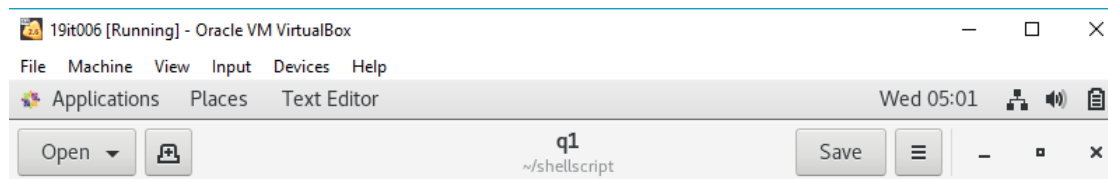


Practical 5

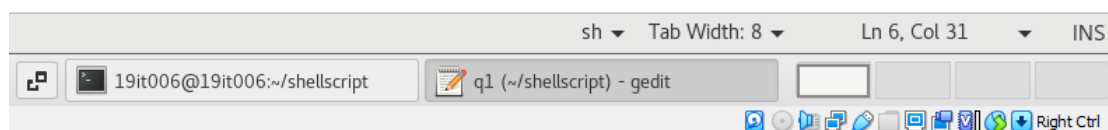
1. Write a script called hello which outputs the following:

- Your username
- the time and date
- Who is logged on?
- Also output a line of asterisks (*****) after each section.

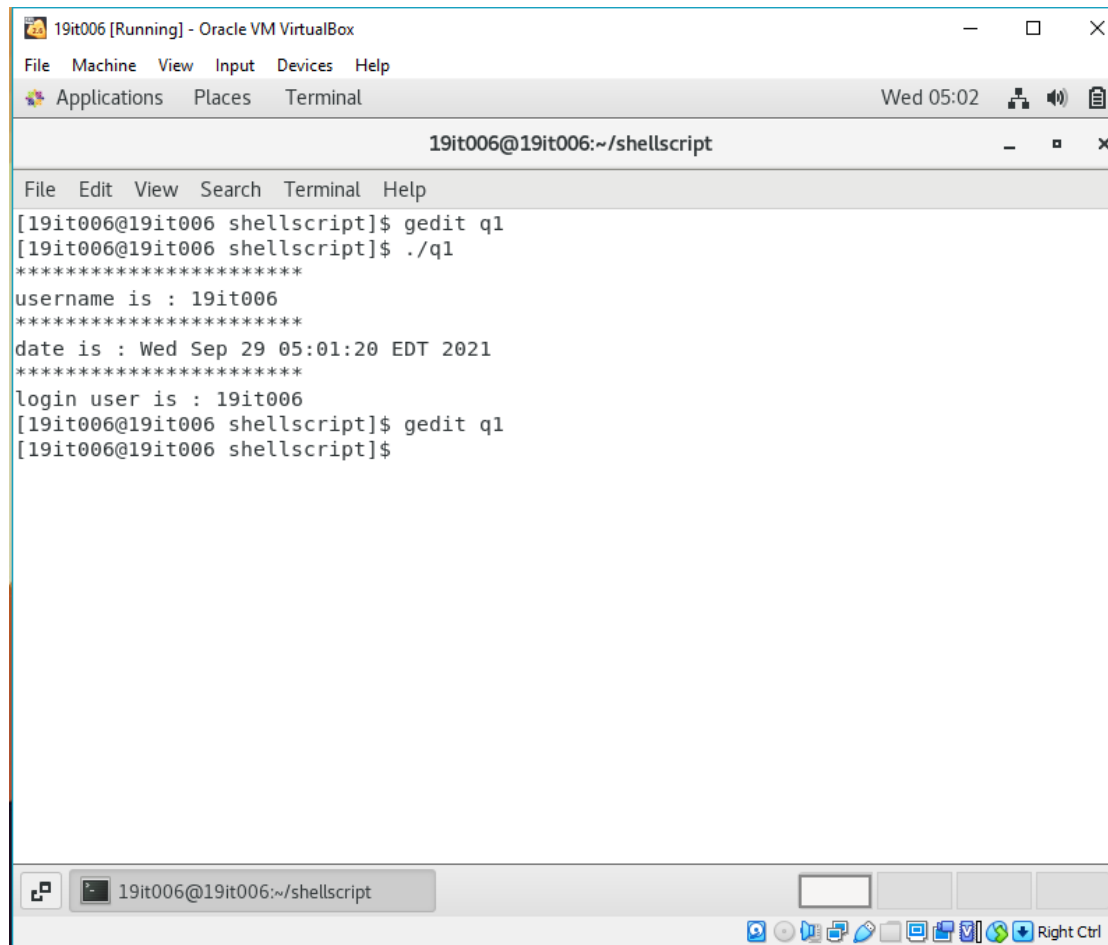


```
19it006 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
Applications Places Text Editor Wed 05:01
Open q1 ~/shellscript Save
```

```
#!/bin/bash
echo "*****"
echo "username is : `hostname`"
echo "*****"
echo "date is : `date`"
echo "*****"
echo "login user is : `whoami`"
```



```
sh Tab Width: 8 Ln 6, Col 31 INS
19it006@19it006:~/shellscript q1 (~/.shellscript) - gedit
```

Output:

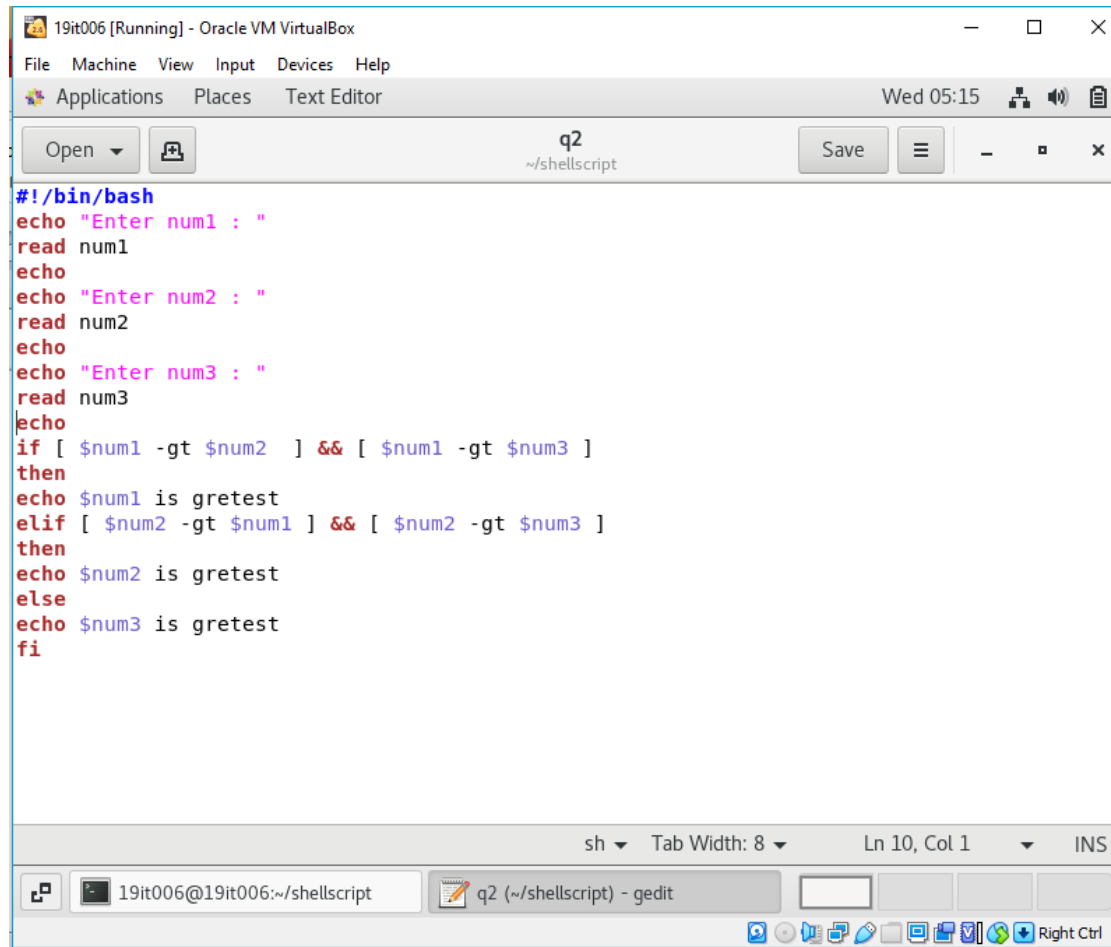
The screenshot shows a terminal window titled "19it006 [Running] - Oracle VM VirtualBox". The window has a menu bar with "File", "Machine", "View", "Input", "Devices", and "Help". Below the menu bar is a toolbar with "Applications", "Places", and "Terminal". The terminal title bar reads "19it006@19it006:~/shellscrip". The terminal content shows the following commands and output:

```
[19it006@19it006 shellscrip]$ gedit q1
[19it006@19it006 shellscrip]$ ./q1
*****
username is : 19it006
*****
date is : Wed Sep 29 05:01:20 EDT 2021
*****
login user is : 19it006
[19it006@19it006 shellscrip]$ gedit q1
[19it006@19it006 shellscrip]$
```

The terminal window also features a status bar at the bottom with a taskbar showing various system icons and a "Right Ctrl" button.

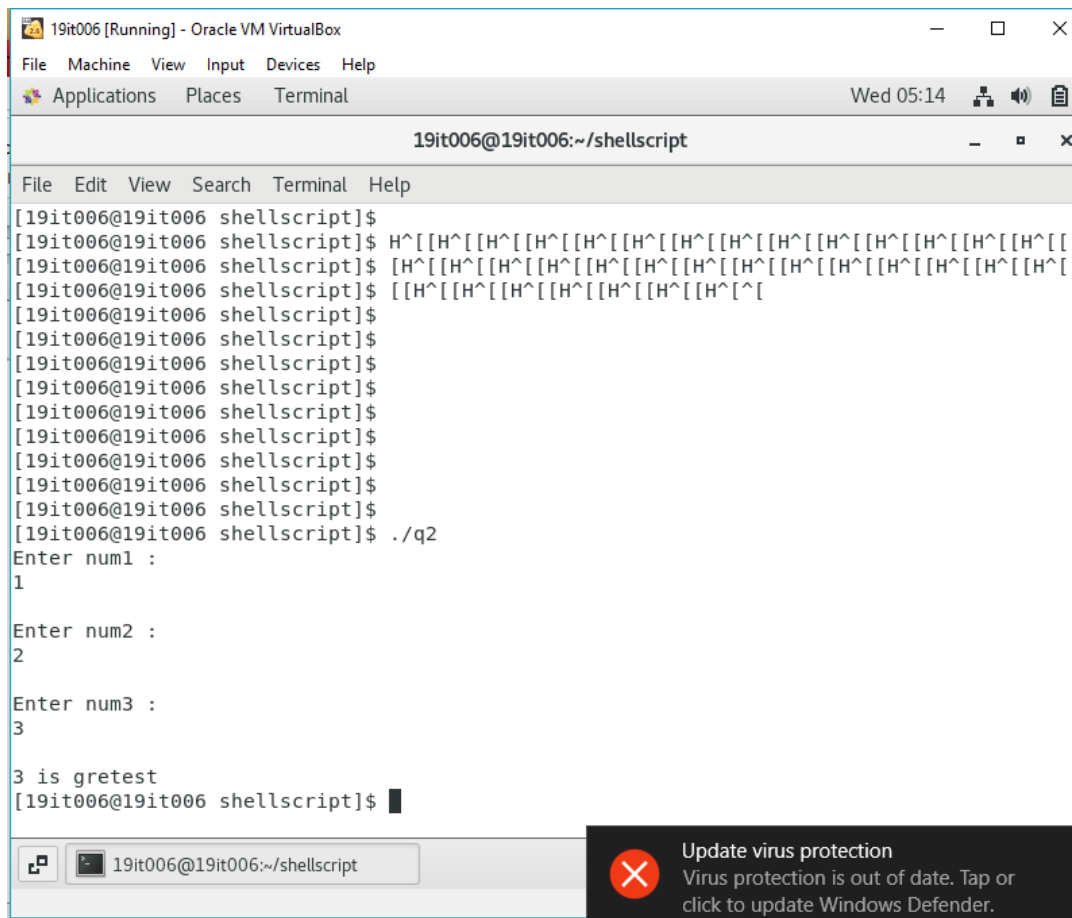
2. Write a shell program to find the largest integer among the three integers given as arguments.

Program:



```
#!/bin/bash
echo "Enter num1 : "
read num1
echo
echo "Enter num2 : "
read num2
echo
echo "Enter num3 : "
read num3
echo
if [ $num1 -gt $num2 ] && [ $num1 -gt $num3 ]
then
echo $num1 is gretest
elif [ $num2 -gt $num1 ] && [ $num2 -gt $num3 ]
then
echo $num2 is gretest
else
echo $num3 is gretest
fi
```

Output:



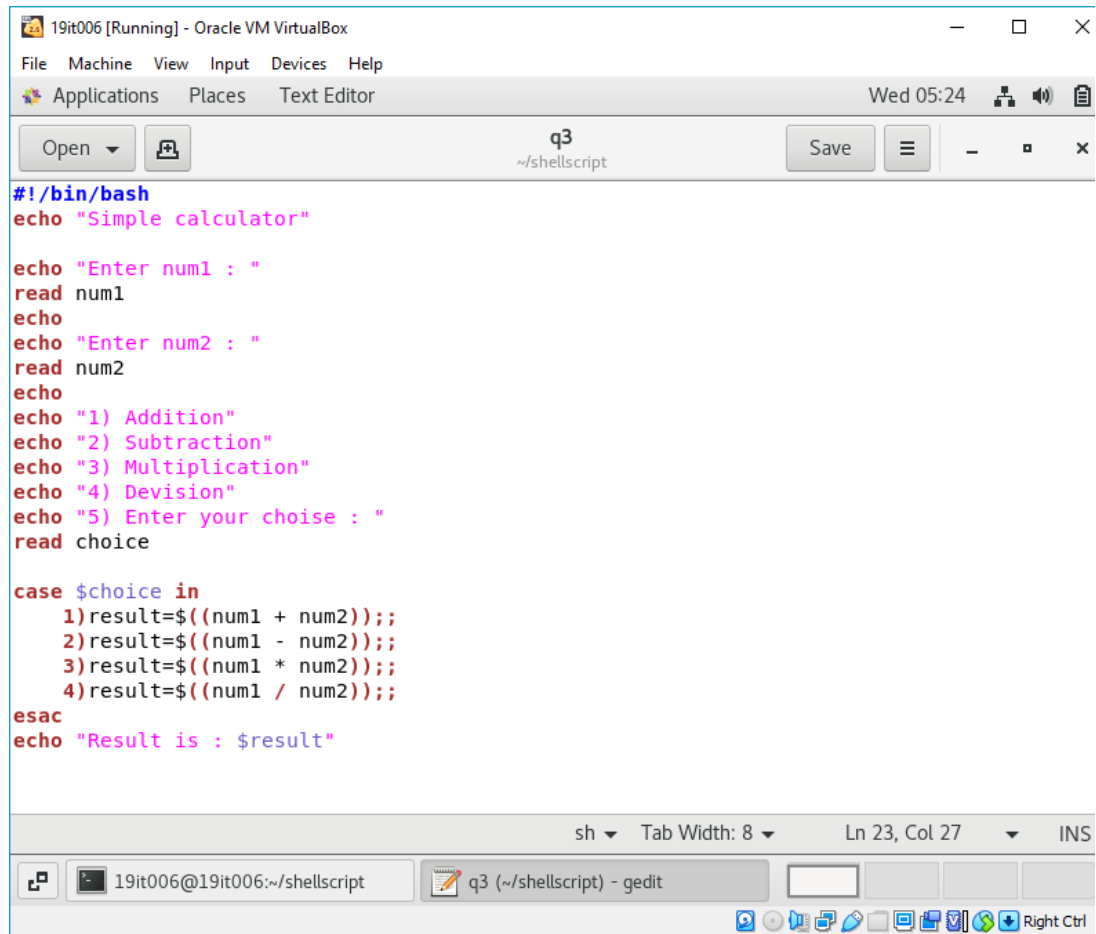
The screenshot shows a Windows 10 desktop environment within an Oracle VM VirtualBox. A terminal window titled "19it006@19it006:~/shellsript" is open, displaying the following commands and output:

```
[19it006@19it006 shellsript]$  
[19it006@19it006 shellsript]$ H^[[H^[[H^[[H^[[H^[[H^[[H^[[H^[[H^[[H^[[H^[[H^[[H^[[H^[[  
[19it006@19it006 shellsript]$ H^[[H^[[H^[[H^[[H^[[H^[[H^[[H^[[H^[[H^[[H^[[H^[[H^[[H^[[  
[19it006@19it006 shellsript]$ [[H^[[H^[[H^[[H^[[H^[[H^[[H^[[H^[[H^[[H^[[H^[[H^[[H^[[H^[[  
[19it006@19it006 shellsript]$  
[19it006@19it006 shellsript]$  
[19it006@19it006 shellsript]$  
[19it006@19it006 shellsript]$  
[19it006@19it006 shellsript]$  
[19it006@19it006 shellsript]$  
[19it006@19it006 shellsript]$  
[19it006@19it006 shellsript]$  
[19it006@19it006 shellsript]$  
[19it006@19it006 shellsript]$  
[19it006@19it006 shellsript]$ ./q2  
Enter num1 :  
1  
  
Enter num2 :  
2  
  
Enter num3 :  
3  
  
3 is gretest  
[19it006@19it006 shellsript]$
```

At the bottom of the screen, there is a taskbar with a taskbar icon for the terminal window. To the right of the taskbar, there is a notification area with a red 'X' icon and the text: "Update virus protection. Virus protection is out of date. Tap or click to update Windows Defender."

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

Program:



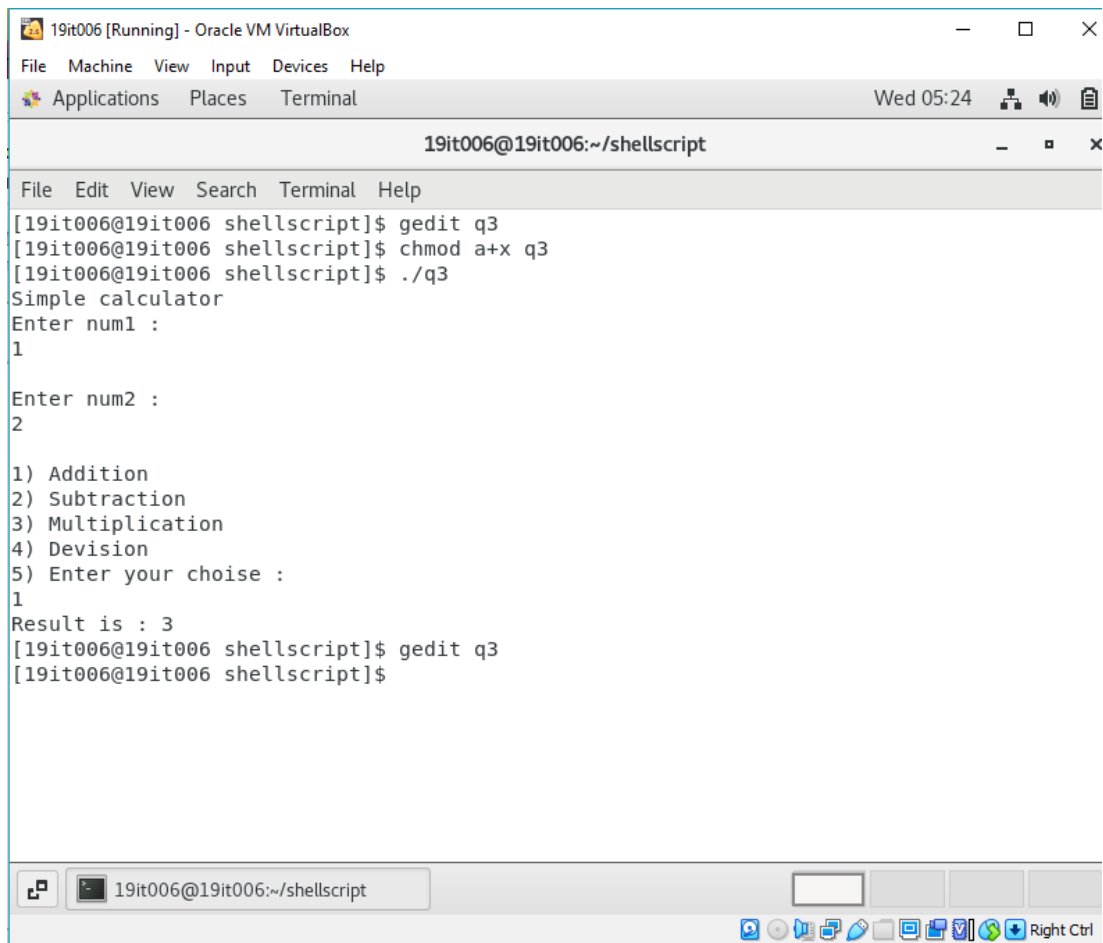
The screenshot shows a terminal window titled "19it006 [Running] - Oracle VM VirtualBox". The window contains a shell script for a simple calculator. The script prompts the user to enter two numbers and a choice of operation (Addition, Subtraction, Multiplication, or Devision). It then calculates the result and displays it. The script is saved as "q3" in the file manager.

```
#!/bin/bash
echo "Simple calculator"

echo "Enter num1 : "
read num1
echo
echo "Enter num2 : "
read num2
echo
echo "1) Addition"
echo "2) Subtraction"
echo "3) Multiplication"
echo "4) Devision"
echo "5) Enter your choise : "
read choice

case $choice in
    1) result=$((num1 + num2));;
    2) result=$((num1 - num2));;
    3) result=$((num1 * num2));;
    4) result=$((num1 / num2));;
esac
echo "Result is : $result"
```

Output:



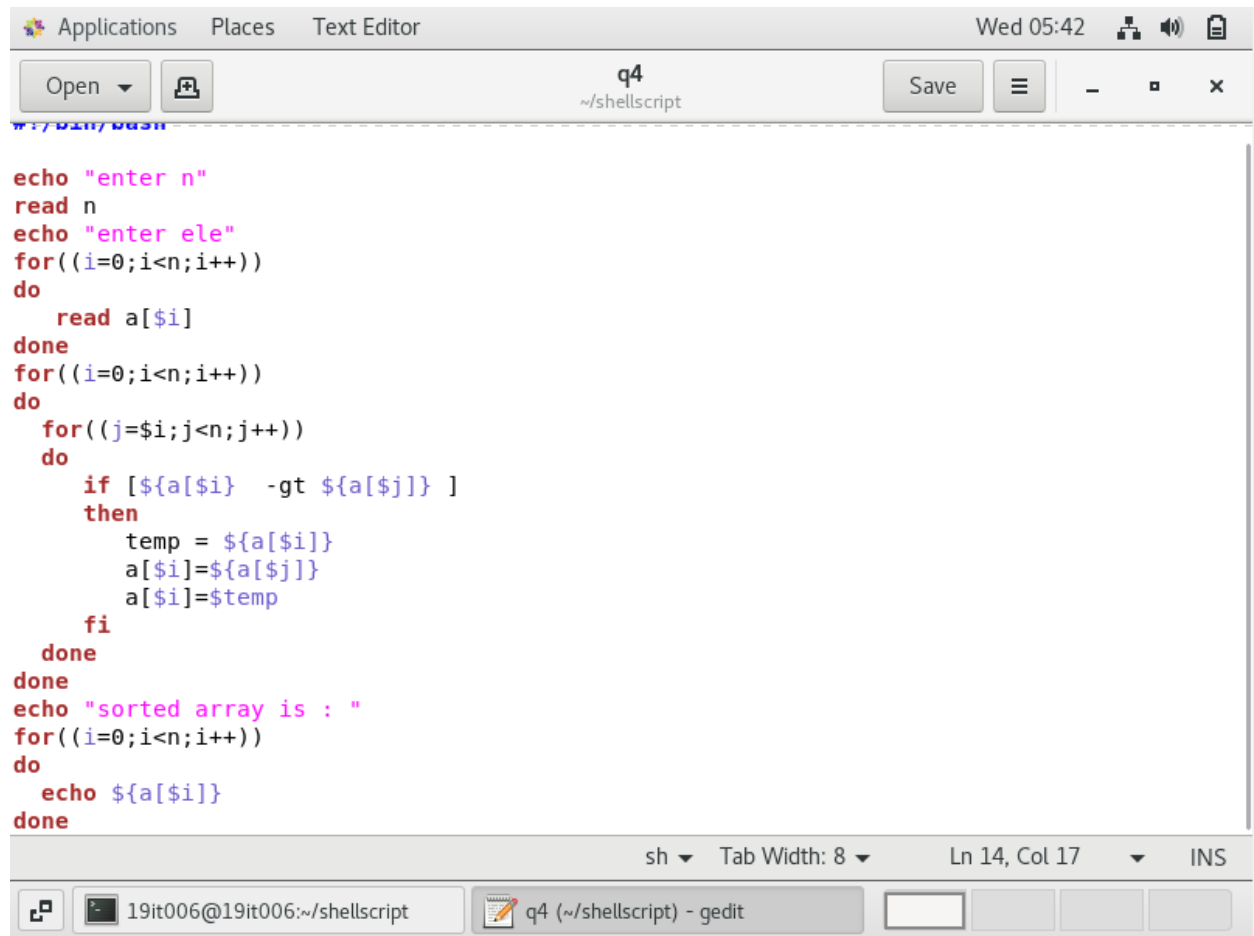
The screenshot shows a VirtualBox window titled "19it006 [Running] - Oracle VM VirtualBox". Inside, there is a terminal window titled "19it006@19it006:~/shellscrip". The terminal displays the following commands and output:

```
File Edit View Search Terminal Help
[19it006@19it006 shellscrip]$ gedit q3
[19it006@19it006 shellscrip]$ chmod a+x q3
[19it006@19it006 shellscrip]$ ./q3
Simple calculator
Enter num1 :
1
Enter num2 :
2
1) Addition
2) Subtraction
3) Multiplication
4) Devision
5) Enter your choise :
1
Result is : 3
[19it006@19it006 shellscrip]$ gedit q3
[19it006@19it006 shellscrip]$
```

The terminal window has a menu bar with "File", "Edit", "View", "Search", "Terminal", and "Help". The status bar at the bottom shows the current directory as "19it006@19it006:~/shellscrip" and a "Right Ctrl" button.

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

Program:



The screenshot shows a gedit text editor window titled 'q4' with the file path '~/.shellscrip'. The script content is as follows:

```
#!/bin/bash
echo "enter n"
read n
echo "enter ele"
for((i=0;i<n;i++))
do
    read a[$i]
done
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 "sorted array is : "
for((i=0;i<n;i++))
do
    echo ${a[$i]}
done
```

The status bar at the bottom indicates 'sh', 'Tab Width: 8', 'Ln 14, Col 17', and 'INS'. The taskbar at the very bottom shows the terminal window '19it006@19it006:~/shellscrip' and the gedit window 'q4 (~/.shellscrip) - gedit'.

Output:

```
Enter number of elements in array :  
7
```

```
Enter elements into array
```

```
6
```

```
2
```

```
7
```

```
1
```

```
5
```

```
3
```

```
4
```

```
Array after sorting
```

```
1
```

```
2
```

```
3
```

```
4
```

```
5
```

```
6
```

```
7
```