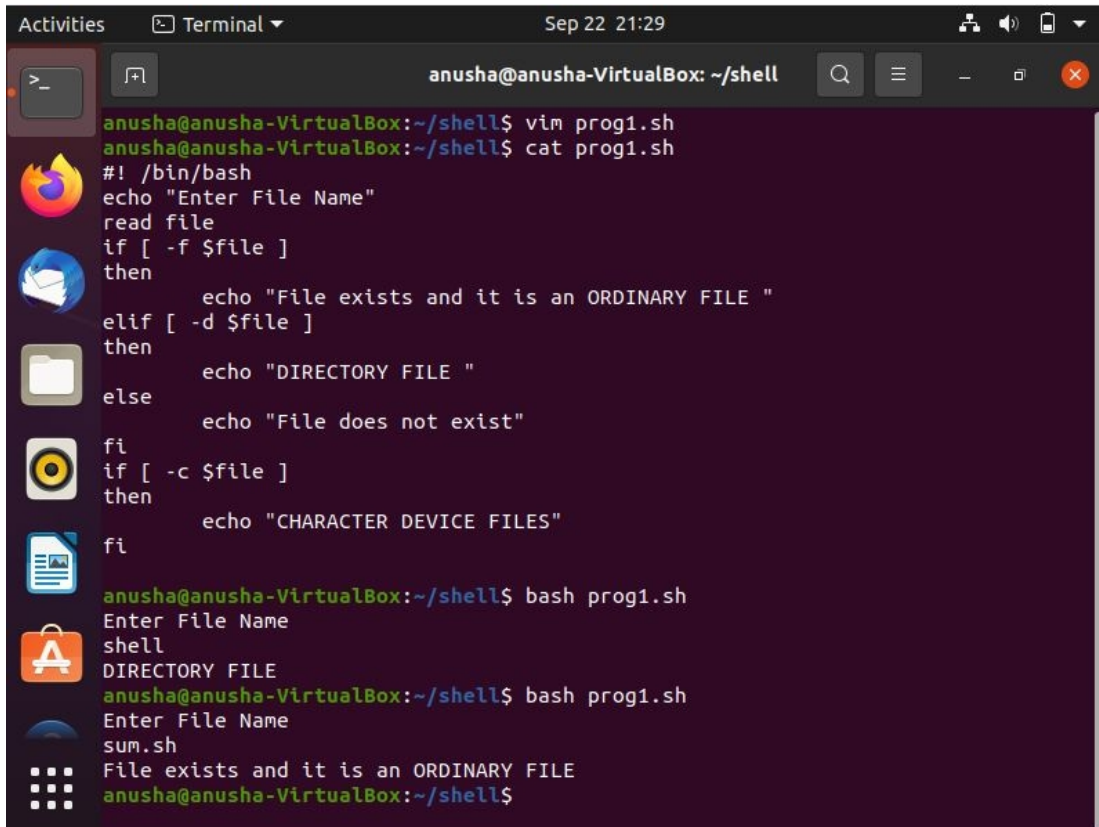


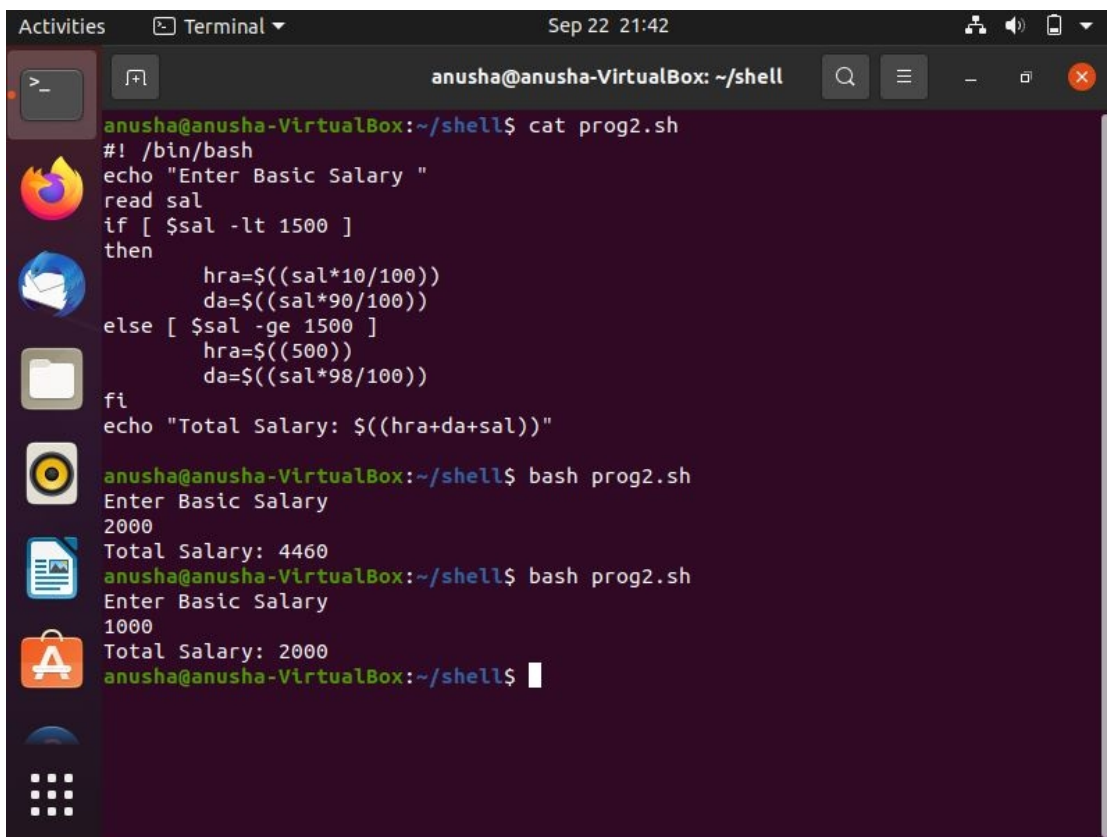
## EXERCISE 5

1) Write a shell script that takes a command line argument and reports on whether it is directory, a file, or something else.



```
anusha@anusha-VirtualBox: ~/shell
anusha@anusha-VirtualBox:~/shell$ vim prog1.sh
anusha@anusha-VirtualBox:~/shell$ cat prog1.sh
#!/bin/bash
echo "Enter File Name"
read file
if [ -f $file ]
then
    echo "File exists and it is an ORDINARY FILE "
elif [ -d $file ]
then
    echo "DIRECTORY FILE "
else
    echo "File does not exist"
fi
if [ -c $file ]
then
    echo "CHARACTER DEVICE FILES"
fi
anusha@anusha-VirtualBox:~/shell$ bash prog1.sh
Enter File Name
shell
DIRECTORY FILE
anusha@anusha-VirtualBox:~/shell$ bash prog1.sh
Enter File Name
sum.sh
File exists and it is an ORDINARY FILE
anusha@anusha-VirtualBox:~/shell$
```

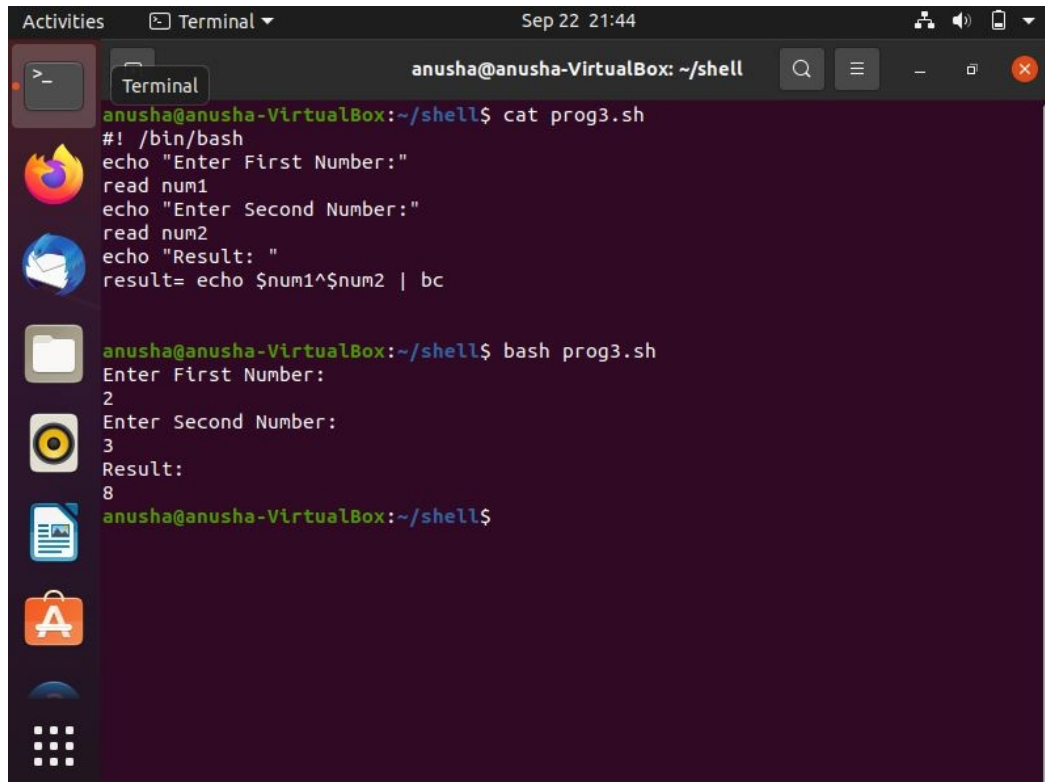
- 2) Write a shell script that computes the gross salary of a employee according to the following rules :
- i) if basic salary is < 1500 then HRA =10% of the basic and DA =90% of the basic.
  - ii) If basic salary is >=1500 then HRA =Rs500 and DA=98% of the basic.



```
anusha@anusha-VirtualBox: ~/shell
anusha@anusha-VirtualBox:~/shell$ cat prog2.sh
#!/bin/bash
echo "Enter Basic Salary "
read sal
if [ $sal -lt 1500 ]
then
    hra=$((sal*10/100))
    da=$((sal*90/100))
else [ $sal -ge 1500 ]
    hra=$((500))
    da=$((sal*98/100))
fi
echo "Total Salary: $((hra+da+sal))"

anusha@anusha-VirtualBox:~/shell$ bash prog2.sh
Enter Basic Salary
2000
Total Salary: 4460
anusha@anusha-VirtualBox:~/shell$ bash prog2.sh
Enter Basic Salary
1000
Total Salary: 2000
anusha@anusha-VirtualBox:~/shell$
```

3) Write a shell script that accepts two integers as its arguments and computes the value of first number raised to the power of the second number.



```
anusha@anusha-VirtualBox: ~/shell
anusha@anusha-VirtualBox:~/shell$ cat prog3.sh
#!/bin/bash
echo "Enter First Number:"
read num1
echo "Enter Second Number:"
read num2
echo "Result: "
result= echo $num1^$num2 | bc

anusha@anusha-VirtualBox:~/shell$ bash prog3.sh
Enter First Number:
2
Enter Second Number:
3
Result:
8
anusha@anusha-VirtualBox:~/shell$
```

The screenshot shows a terminal window titled "Terminal" with the prompt "anusha@anusha-VirtualBox: ~/shell". The user enters the command `cat prog3.sh`, which displays the contents of the script `prog3.sh`. The script is a bash script that prompts the user for two numbers, reads them into `num1` and `num2`, and then calculates `num1` raised to the power of `num2` using `bc`. The user then runs the script with `bash prog3.sh`, providing input values of 2 and 3, which results in the output 8.

4. Write a shell script which receives two file names as arguments. It should check whether the two file contents are same or not. If they are same then second file should be deleted.

```
anusha@anusha-VirtualBox:~/shell$ cat prog4.sh
#!/bin/bash
echo "Enter first file name: "
read f1
echo "Enter Second File name: "
read f2
if cmp $f1 $f2
then
    rm -i "$f2"
else
    echo "Files are not same"
fi
anusha@anusha-VirtualBox:~/shell$ bash prog4.sh
Enter first file name:
1.sh
Enter Second File name:
2.sh
rm: remove regular file '2.sh'? y
anusha@anusha-VirtualBox:~/shell$ bash prog4.sh
Enter first file name:
sum.sh
Enter Second File name:
1.sh
sum.sh 1.sh differ: byte 1, line 1
Files are not same
anusha@anusha-VirtualBox:~/shell$
```

5) Write a shell script for Calculator

```
anusha@anusha-VirtualBox:~/shell$ vim prog5.sh
anusha@anusha-VirtualBox:~/shell$ cat prog5.sh
echo "Enter two numbers:"
read a
read b
echo "1.Addition"
echo "2.Subtraction"
echo "3.Multiplication"
echo "4.Division"
echo "Enter choice:"
read choice
case $choice in
    1)let sum=$a+$b
    echo "Result: $sum";;
    2)let sub=$a-$b
    echo "Result: $sub";;
    3)let mul=$a*$b
    echo "Result: $mul";;
    4)let div=$a/$b;
    echo "Result: $div";;
    *)echo "Invalid";;
esac
```

```
anusha@anusha-VirtualBox:~/shell$ bash prog5.sh
Enter two numbers:
2
3
1.Addition
2.Subtraction
3.Multiplication
4.Division
Enter choice:
1
Result: 5
anusha@anusha-VirtualBox:~/shell$ bash prog5.sh
Enter two numbers:
4
2
1.Addition
2.Subtraction
3.Multiplication
4.Division
Enter choice:
2
Result: 2
```

```
anusha@anusha-VirtualBox:~/shell$ bash prog5.sh
Enter two numbers:
4
3
1.Addition
2.Subtraction
3.Multiplication
4.Division
Enter choice:
3
Result: 12
anusha@anusha-VirtualBox:~/shell$ bash prog5.sh
Enter two numbers:
4
2
1.Addition
2.Subtraction
3.Multiplication
4.Division
Enter choice:
4
Result: 2
anusha@anusha-VirtualBox:~/shell$
```