1.

```
karthik@karthik-VirtualBox:~$ cat exercise5-1.sh
#! /bin/bash

echo "Enter a file"
read fil
if test -d $fil
then
echo "It is a directory "
elif test -f $fil
then
echo "It is a file"
else
echo "File not exist "
fi

karthik@karthik-VirtualBox:~$ bash exercise5-1.sh
Enter a file
Documents
It is a directory
karthik@karthik-VirtualBox:~$ bash exercise5-1.sh
Enter a file
myfile
It is a file
karthik@karthik-VirtualBox:~$ bash exercise5-1.sh
Enter a file
Karthik
File not exist
```

```
karthik@karthik-VirtualBox:~$ cat exercise5-1.sh
#! /bin/bash

echo "Enter a file"
read fil
if test -d $fil
then
        echo "It is a directory "
elif test -f $fil
then
        echo "It is a file"
else
        echo "File not exist "
fi
karthik@karthik-VirtualBox:~$ bash exercise5-1.sh
Enter a file
Documents
It is a directory
karthik@karthik-VirtualBox:~$ bash exercise5-1.sh
Enter a file
myfile
It is a file
karthik@karthik-VirtualBox:~$ bash exercise5-1.sh
Enter a file
Karthik
File not exist
```

2.

karthik@karthik-VirtualBox:~$ cat > exercise5-2.sh

#! /bin/bash

echo " Enter the basic salary : "

read sal

if [$sal -lt 1500]

then

echo " HRA = " $((sal/10))

echo " DA = " $((sal*9/10))

```
elif [ $sal -gt 1500 ]
then
echo " HRA = 500 "
echo " DA = " $((sal*98/100))
fi
^Z
[1]+ Stopped

karthik@karthik-VirtualBox:~$ bash exercise5-2.sh
Enter the basic salary :
1500
HRA = 500
DA = 1470
karthik@karthik-VirtualBox:~$ bash exercise5-2.sh
Enter the basic salary :
1400
HRA = 140
DA = 1260
karthik@karthik-VirtualBox:~$ bash exercise5-2.sh
Enter the basic salary :
1600
HRA = 500
DA = 1568
```

```
karthik@karthik-VirtualBox:~$ cat exercise5-2.sh
#! /bin/bash

echo " Enter the basic salary : "
read sal
if [ $sal -lt 1500 ]
then
        echo " HRA = " $((sal/10))
        echo " DA = " $((sal*9/10))

else [ $sal -gt 1500 ]
        echo " HRA = 500 "
        echo " DA = " $((sal*98/100))
fi
karthik@karthik-VirtualBox:~$ bash exercise5-2.sh
 Enter the basic salary :
1500
 HRA = 500
 DA =  1470
karthik@karthik-VirtualBox:~$ bash exercise5-2.sh
 Enter the basic salary :
1400
 HRA =  140
 DA =  1260
karthik@karthik-VirtualBox:~$ bash exercise5-2.sh
 Enter the basic salary :
1600
 HRA = 500
 DA =  1568
```

3.

karthik@karthik-VirtualBox:~$ cat exercise5-3.sh

#! /bin/bash

echo -n " Enter the first number : "

read num1

echo -n " Enter the second number : "

read num2

echo $num1 ^ $num2 | bc

karthik@karthik-VirtualBox:~$ bash exercise5-3.sh

Enter the first number : 5

Enter the second number : 2

25

```
karthik@karthik-VirtualBox:~$ cat exercise5-3.sh
#! /bin/bash

echo -n  " Enter the first number : "
read num1
echo -n  " Enter the second number : "
read num2
echo $num1 ^ $num2  | bc
karthik@karthik-VirtualBox:~$ bash exercise5-3.sh
 Enter the first number : 5
 Enter the second number : 2
25
```

4.

karthik@karthik-VirtualBox:~$ cat exercise5-4.sh

#1 /bin/bash

echo " Enter the first file : "

read f1

echo " Enter the second file : "

read f2

if cmp $f1 $f2

then

rm -i "$f2"

else

echo " Contents are no same "

fi

```
karthik@karthik-VirtualBox:~$ cat exercise5-4.sh
#1 /bin/bash

echo " Enter the first file : "
read f1
echo " Enter the second file : "
read f2
if cmp  $f1 $f2
then
                rm -i "$f2"
else
        echo " Contents are no same "
fi
```

karthik@karthik-VirtualBox:~$ cat > ex5-file1.txt

Hello

welcome to the program

^Z

[4]+ Stopped cat > ex5-file1.txt

karthik@karthik-VirtualBox:~$ cat > ex5-file2.txt

Hi

How are you

^Z

[5]+ Stopped cat > ex5-file2.txt

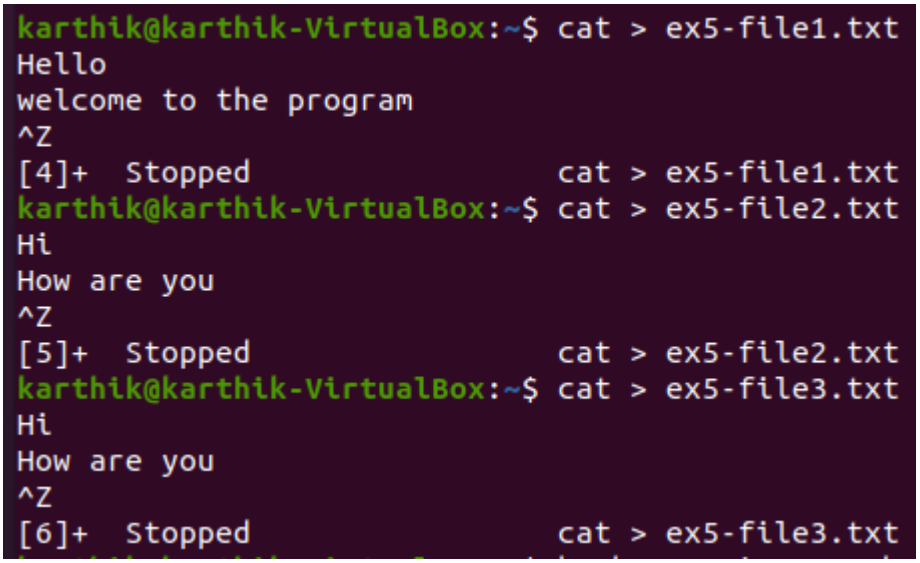
karthik@karthik-VirtualBox:~$ cat > ex5-file3.txt

Hi

How are you

^Z

[6]+ Stopped cat > ex5-file3.txt



karthik@karthik-VirtualBox:~$ bash exercise5-4.sh

Enter the first file :

ex5-file1.txt

Enter the second file :

ex5-file2.txt

ex5-file1.txt ex5-file2.txt differ: byte 2, line 1

Contents are no same

karthik@karthik-VirtualBox:~$ bash exercise5-4.sh

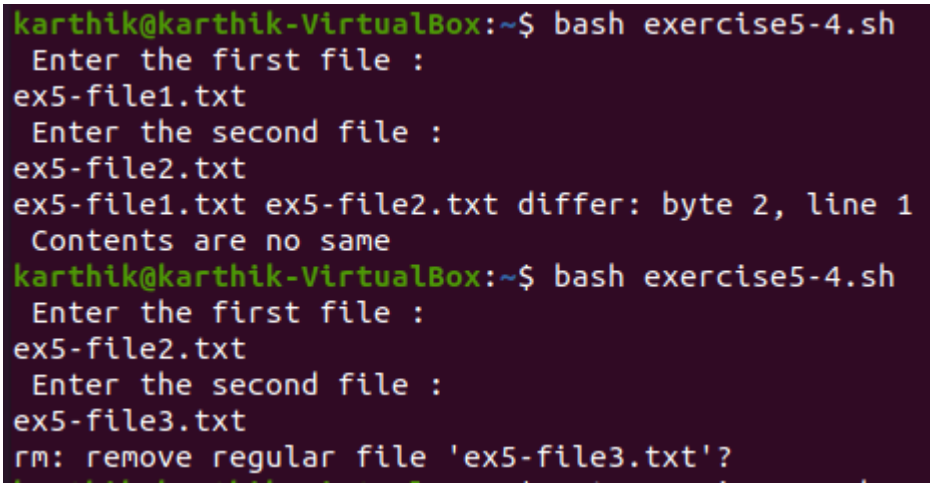
Enter the first file :

ex5-file2.txt

Enter the second file :

ex5-file3.txt

rm: remove regular file 'ex5-file3.txt'?



5.

karthik@karthik-VirtualBox:~$ cat exercise5-5.sh

#1 /bin/bash

echo " Enter two numbers : "

read n1

read n2

echo " Enter calculation : "

echo " 1. Addition "

echo " 2. Substraction "

echo " 3. Multiplication "

echo " 4. Division "

read opt

case $opt in

1) ans=`echo $n1 + $n2 | bc`

;;

2) ans=`echo $n1 - $n2 | bc`

;;

3) ans=`echo $n1 \* $n2 | bc`

;;

4) ans=`echo " scale = 2 ; $n1 / $n2 " | bc`

;;

esac

echo "result : $ans "

```
karthik@karthik-VirtualBox:~$ cat exercise5-5.sh
#1 /bin/bash

echo " Enter two numbers : "
read n1
read n2

echo " Enter calculation : "
echo " 1. Addition "
echo " 2. Substraction "
echo " 3. Multiplication "
echo " 4. Division "
read opt

case $opt in
        1) ans=`echo $n1 + $n2 | bc`
        ;;
        2) ans=`echo $n1 - $n2 | bc`
        ;;
        3) ans=`echo $n1 \* $n2 | bc`
        ;;
        4) ans=`echo " scale = 2 ; $n1 / $n2 " | bc`
        ;;
esac
echo "result : $ans "
```

karthik@karthik-VirtualBox:~$ bash exercise5-5.sh

Enter two numbers :

5

6

Enter calculation :

1. Addition

2. Substraction

3. Multiplication

4. Division

3

result : 30

karthik@karthik-VirtualBox:~$ bash exercise5-5.sh

Enter two numbers :

5

9

Enter calculation :

1. Addition

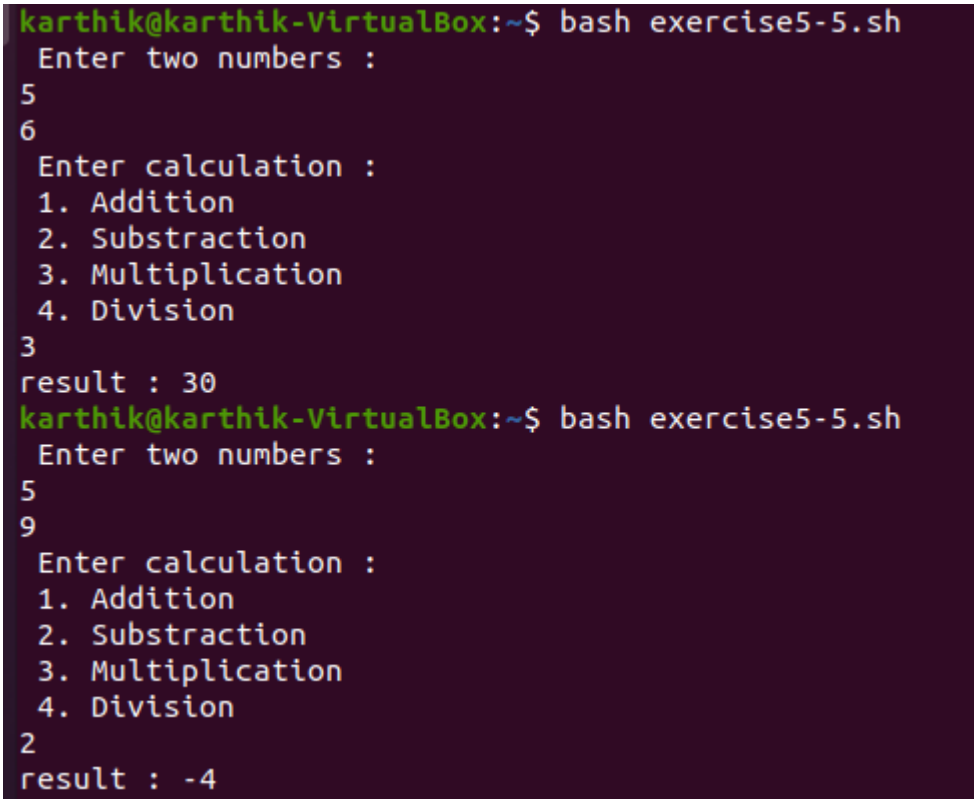
2. Substraction

3. Multiplication

4. Division

2

result : -4



```
karthik@karthik-VirtualBox:~$ bash exercise5-5.sh
Enter two numbers :
12
2
Enter calculation :
1. Addition
2. Substraction
3. Multiplication
4. Division
4
result : 6.00

karthik@karthik-VirtualBox:~$ bash exercise5-5.sh
Enter two numbers :
5
8
Enter calculation :
1. Addition
2. Substraction
3. Multiplication
4. Division
1
result : 13
```

```
karthik@karthik-VirtualBox:~$ bash exercise5-5.sh
 Enter two numbers :
12
2
 Enter calculation :
 1. Addition
 2. Substraction
 3. Multiplication
 4. Division
4
result : 6.00
karthik@karthik-VirtualBox:~$ bash exercise5-5.sh
 Enter two numbers :
5
8
 Enter calculation :
 1. Addition
 2. Substraction
 3. Multiplication
 4. Division
1
result : 13
```