# EXPERIMENT 4

1.Write a Shell Script program to display a given message.

```
mca@mca-H81M-S: ~/Desktop
#!/bin/bash
echo "HELLO"
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"test.sh" 2L, 25C                                    1,1              All
```

```
mca@mca-H81M-S: ~/Desktop
mca@mca-H81M-S:~$ cd Desktop
mca@mca-H81M-S:~/Desktop$ echo $SHELL
/bin/bash
mca@mca-H81M-S:~/Desktop$ vim test.sh
mca@mca-H81M-S:~/Desktop$ sh test.sh
HELLO
mca@mca-H81M-S:~/Desktop$ vim test.sh
mca@mca-H81M-S:~/Desktop$
```

2.Write a Shell Script to print weather two numbers are equal or  not.

```
#!/bin/bash
read -p "Enter the first number" n1
read -p "Enter the second number" n2
if [ $n1 -eq $n2 ]
then
echo "The numbers are equal"
else
echo "The numbers are not equal"
fi
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"p2.sh" 9L, 181C                                    1,1            All
```

```
mca@mca-H81M-S:~$ cd Desktop
mca@mca-H81M-S:~/Desktop$ echo $SHELL
/bin/bash
mca@mca-H81M-S:~/Desktop$ vim test.sh
mca@mca-H81M-S:~/Desktop$ sh test.sh
HELLO
mca@mca-H81M-S:~/Desktop$ vim test.sh
mca@mca-H81M-S:~/Desktop$ vim test.sh
mca@mca-H81M-S:~/Desktop$ vim p2.sh
mca@mca-H81M-S:~/Desktop$ sh p2.sh
Enter the first number4
Enter the second number5
The numbers are not equal
mca@mca-H81M-S:~/Desktop$ sh p2.sh
Enter the first number123344
Enter the second number123344
The numbers are equal
mca@mca-H81M-S:~/Desktop$
```

## 3. Write a Shell Script to perform integer arithematic operations.

```bash
#!/bin/bash
read -p "Enter the first number" n1
read -p "Enter the second number" n2
sum=$(( $n1 + $n2 ))
        echo "sum is" $sum
sub=$(( $n1 - $n2 ))
        echo "difference is" $sub
mul=$(( $n1 * $n2 ))
        echo "product is" $mul
div=$(( $n1 / $n2 ))
        echo "devided value is" $div
```

```
mca@mca-H81M-S:~/Desktop$ vim p3.sh
mca@mca-H81M-S:~/Desktop$ sh p3.sh
Enter the first number10
Enter the second number5
sum is 15
difference is 5
product is 50
devided value is 2
mca@mca-H81M-S:~/Desktop$
```

4. Write a Shell Script to get in input details like name,roll number and mark and print them.

```bash
#!/bin/bash
read -p "Enter the name" n
read -p "Enter the roll number" r
read -p "Enter the marks" m
echo "Name of the student:"$n
echo "Roll no:" $r
echo "Marks:" $m
```

```
mca@mca-H81M-S:~/Desktop$ sh p4.sh
Enter the nameavinash
Enter the roll number23
Enter the marks98
Name of the student:avinash
Roll no: 23
Marks: 98
mca@mca-H81M-S:~/Desktop$
```

## 5. Write a Shell Script to swap two values.

```bash
#!/bin/bash
read -p "Enter the first number" a
read -p "Enter the second number" b
echo "Before Swaping A=$a and B=$b"
c=$a
a=$b
b=$c
echo "After Swaping A=$a and B=$b"
```

```
mca@mca-H81M-S:~/Desktop$ vim p5.sh
mca@mca-H81M-S:~/Desktop$ sh p5.sh
Enter the first number10
Enter the second number5
Before Swaping A=10 and B=5
After Swaping A=5 and B=10
mca@mca-H81M-S:~/Desktop$
```

## 6. Write a Shell Script to find the square and cube of a number.

```bash
#!/bin/bash
read -p "Enter the number " n
square=$(( $n * $n ))
cube=$(( $n * $n * $n ))
echo "Square of $n is: " $square
echo "Cube of $n is: " $cube
```

```
mca@mca-H81M-S:~/Desktop$ vim p6.sh
mca@mca-H81M-S:~/Desktop$ sh p6.sh
Enter the number 4
Square of 4 is:  16
Cube of 4 is:  64
mca@mca-H81M-S:~/Desktop$
```

7. Write a Shell Script to check weather the given number is odd or even.

```bash
#!/bin/bash
read -p "Enter the number" n
if [ $(($n % 2)) -eq 0 ]
then
        echo "$n is Even"
else
        echo "$n is Odd"
fi
```

```
mca@mca-H81M-S:~/Desktop$ vim p7.sh
mca@mca-H81M-S:~/Desktop$ sh p7.sh
Enter the number5
5 is Odd
mca@mca-H81M-S:~/Desktop$
```

8. Write a Shell Script to find the minimum among four values.

```bash
#!/bin/bash
read -p "Enter the first number" a
read -p "Enter the second number" b
read -p "Enter the third number" c
read -p "Enter the fourth number" d
if [ $a -lt $b -a $a -lt $c -a $a -lt $d ]
then
        echo "The minimum value is" $a
elif [ $b -lt $a -a $b -lt $c -a $b -lt $d ]
then
        echo "The minimum value is" $b

elif [ $c -lt $a -a $c -lt $b -a $c -lt $d ]
then
        echo "The minimum value is" $c

else
        echo "The minimum value is" $d

fi




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```

```
mca@mca-H81M-S:~/Desktop$ vim p8.sh
mca@mca-H81M-S:~/Desktop$ sh p8.sh
Enter the first number4
Enter the second number5
Enter the third number7
Enter the fourth number3
The minimum value is 3
mca@mca-H81M-S:~/Desktop$
```

9. Write a Shell Script to print sum of n natural numbers.

```bash
#!/bin/bash
echo "Enter the limit "
read n
i=0
sum=0
echo "Enter $n numbers"
while [ $i -lt $n ]
do
        read num
        sum=$((sum+num))
        i=$((i+1))
done
echo "Sum of $n numbers are: " $sum
```

```
mca@mca-H81M-S:~/Desktop$ vim p9.sh
mca@mca-H81M-S:~/Desktop$ sh p9.sh
Enter the limit
5
Enter 5 numbers
1
2
3
4
5
Sum of 5 numbers are:  15
mca@mca-H81M-S:~/Desktop$
```