Assignment_2[Bash Scripting]

1. Write a shell script that prints "Hello, World!" to the terminal.

Ans:

```
cdac@LOST:~/BashScripting$ nano hello
cdac@LOST:~/BashScripting$ bash hello
Hello, World!
cdac@LOST:~/BashScripting$
```

2. Declare a variable named "name" and assign the value "CDAC Mumbai" to it. Print the value of the variable.

Ans:

```
cdac@LOST:~/BashScripting$ nano Named
cdac@LOST:~/BashScripting$ bash Named
CDAC Mumbai
cdac@LOST:~/BashScripting$
```

3. Write a shell script that takes a number as input from the user and prints it.

Ans:

```
cdac@LOST:~/BashScripting$ bash Printno
Enter a number
5
5
cdac@LOST:~/BashScripting$
```

4. Write a shell script that performs addition of two numbers (e.g., 5 and 3) and prints the result.

Ans:

```
  GNU nano 6.2
#! bin/bash

a=5
b=3
res=$(($a + $b))
echo Result : $res
```

```
cdac@LOST:~/BashScripting$ nano Addition
cdac@LOST:~/BashScripting$ bash Addition
Result : 8
cdac@LOST:~/BashScripting$
```

5. Write a shell script that takes a number as input and prints "Even" if it is even, otherwise prints "Odd".

Ans:

```
  GNU nano 6.2
#! /bin/bash

echo Enter the number
read num

if [ $num%2==0 ]
then
echo $num is an even number..
else
echo $num is an odd number..
fi
```

```
cdac@LOST:~/BashScripting$ nano Evenodd
cdac@LOST:~/BashScripting$ bash Evenodd
Enter the number
10
10 is an even number..
```

6. Write a shell script that uses a for loop to print numbers from 1 to 5.

Ans:

```
  GNU nano 6.2
#! /bin/bash

echo Numbers from 1 to 5 using for loop:

for((i=1;i<=5;i++))
do
    echo $i
done
```

```
cdac@LOST:~/BashScripting$ nano Forloop
cdac@LOST:~/BashScripting$ bash Forloop
Numbers from 1 to 5 using for loop:
1
2
3
4
5
cdac@LOST:~/BashScripting$ |
```

7. Write a shell script that uses a while loop to print numbers from 1 to 5.

Ans:

```
#! /bin/bash

a=1
echo Numbers from 1 to 5 using while loop

while [ $a -lt 6 ]

do
echo $a
a=`expr $a + 1`
done
```

```
cdac@LOST:~/BashScripting$ bash Whileloop /
Numbers from 1 to 5 using while loop
1
2
3
4
5
```

8. Write a shell script that uses the if statement to check if a number is greater than 10 and prints a message accordingly

Ans:

```
  GNU nano 6.2
#! /bin/bash

echo Enter a number :
read num

if [ $num -gt 10 ]
then
echo Number is greater than 10
else
echo Number is smaller than 10
fi
```

```
cdac@LOST:~/BashScripting$ bash Numgtten
Enter a number :
5
Number is smaller than 10
cdac@LOST:~/BashScripting$ bash Numgtten
Enter a number :
20
Number is greater than 10
```

9. Write a shell script that uses nested for loops to print a multiplication table for numbers from 1 to 5. The output should be formatted nicely, with each row representing a number and each column representing the multiplication result for that number.

Ans:

```bash
#! /bin/bash

echo Multiplication Tables 1 to 5
for((i=1;i<=5;i++))
do
for((j=1;j<=5;j++))
do
mul=$((i * j))
echo -en "" $mul
done
echo ""
done
```

```
cdac@LOST:~/BashScripting$ nano Table
cdac@LOST:~/BashScripting$ bash Table
Multiplication Tables 1 to 5
 1 2 3 4 5
 2 4 6 8 10
 3 6 9 12 15
 4 8 12 16 20
 5 10 15 20 25
```

10.