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

```
sachin@DESKTOP-MTQNNVD:/home/LinuxAssignment/Assignment2/PartC$ cat Q1.sh
#!/bin/bash
echo "Hello, World!"
sachin@DESKTOP-MTQNNVD:/home/LinuxAssignment/Assignment2/PartC$ ./Q1.sh
Hello, World!
```

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

```
sachin@DESKTOP-MTQNNVD:/home/LinuxAssignment/Assignment2/PartC$ cat Q2.sh
#!/bin/bash

name="CDAC Mumbai"
echo $name
sachin@DESKTOP-MTQNNVD:/home/LinuxAssignment/Assignment2/PartC$ ./Q2.sh
CDAC Mumbai
```

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

```
sachin@DESKTOP-MTQNNVD:/home/LinuxAssignment/Assignment2/PartC$ cat Q3.sh
#!/bin/bash


echo "Enter a Number"
read num
echo "Number :- $((num))"
sachin@DESKTOP-MTQNNVD:/home/LinuxAssignment/Assignment2/PartC$ ./Q3.sh
Enter a Number
45
Number :- 45
```

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

```
sachin@DESKTOP-MTQNNVD:/home/LinuxAssignment/Assignment2/PartC$ cat Q4.sh
#!/bin/bash

echo "Enter a Number 1"
read Number1
echo "Enter a Number 2"
read Number2

sum=$((Number1+Number2))
echo "Addition Of Two Numbers :-" $sum
sachin@DESKTOP-MTQNNVD:/home/LinuxAssignment/Assignment2/PartC$ ./Q4.sh
Enter a Number 1
16
Enter a Number 2
23
Addition Of Two Numbers :- 39
```

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

```
sachin@DESKTOP-MTQNNVD:/home/LinuxAssignment/Assignment2/PartC$ cat Q5.sh
#!/bin/bash

echo "Enter a Number"
read num

if [[ num%2 -eq 0 ]]
then
        echo $num "is Even"
else
        echo $num "is Odd"
fi
sachin@DESKTOP-MTQNNVD:/home/LinuxAssignment/Assignment2/PartC$ ./Q5.sh
Enter a Number
96
96 is Even
sachin@DESKTOP-MTQNNVD:/home/LinuxAssignment/Assignment2/PartC$ ./Q5.sh
Enter a Number
77
77 is Odd
```

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

```
sachin@DESKTOP-MTQNNVD:/home/LinuxAssignment/Assignment2/PartC$ cat Q6.sh
#!/bin/bash

i=1
for((i=1;i<=5;i++))
do
        echo $i;
done
sachin@DESKTOP-MTQNNVD:/home/LinuxAssignment/Assignment2/PartC$ ./Q6.sh
1
2
3
4
5
```

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

```
sachin@DESKTOP-MTQNNVD:/home/LinuxAssignment/Assignment2/PartC$ cat Q7.sh
#!/bin/bash

i=1
while [ $i -le 5 ]
do
        echo $i
        i=`expr $i + 1`
done

sachin@DESKTOP-MTQNNVD:/home/LinuxAssignment/Assignment2/PartC$ ./Q7.sh
1
2
3
4
5
```

Question 8: Write a shell script that checks if a file named "file.txt" exists in the current directory. If it does, print "File exists", otherwise, print "File does not exist".

```
sachin@DESKTOP-MTQNNVD:/home/LinuxAssignment/Assignment2/PartC$ cat Q8.sh
#!/bin/bash

if [ -e file.txt ]
then
        echo "File Exits"
else
        echo "File Does Not Exits"
fi
sachin@DESKTOP-MTQNNVD:/home/LinuxAssignment/Assignment2/PartC$ ./Q8.sh
File Does Not Exits
```

Question 9: Write a shell script that uses the if statement to check if a number is greater than 10 and prints a message accordingly.

```
sachin@DESKTOP-MTQNNVD:/home/LinuxAssignment/Assignment2/PartC$ cat Q9.sh
#!/bin/bash
echo "Enter a Number"
read number

if [[ number -gt 10 ]]
then
        echo "Number is Greater than 10"
else
        echo "Number is Less than or Equal To 10"
fi
sachin@DESKTOP-MTQNNVD:/home/LinuxAssignment/Assignment2/PartC$ ./Q9.sh
Enter a Number
78
Number is Greater than 10
sachin@DESKTOP-MTQNNVD:/home/LinuxAssignment/Assignment2/PartC$ ./Q9.sh
Enter a Number
5
Number is Less than or Equal To 10
```

Question 10: 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.

```
sachin@DESKTOP-MTQNNVD:/home/LinuxAssignment/Assignment2/PartC$ cat Q10.sh
#!/bin/bash
for((i=1; i<=5 ; i++))
do
        for((j=1; j<=10; j++))
        do
                ((result=$i*$j))
                echo "$i * $j = " $result
        done
done
```

```
3 * 1 =  3
3 * 2 =  6
3 * 3 =  9
3 * 4 =  12
3 * 5 =  15
3 * 6 =  18
3 * 7 =  21
3 * 8 =  24
3 * 9 =  27
3 * 10 =  30
4 * 1 =  4
4 * 2 =  8
4 * 3 =  12
4 * 4 =  16
4 * 5 =  20
4 * 6 =  24
4 * 7 =  28
4 * 8 =  32
4 * 9 =  36
4 * 10 =  40
5 * 1 =  5
5 * 2 =  10
5 * 3 =  15
5 * 4 =  20
5 * 5 =  25
5 * 6 =  30
5 * 7 =  35
5 * 8 =  40
5 * 9 =  45
5 * 10 =  50
```

Question 11: Write a shell script that uses a while loop to read numbers from the user until the user enters a negative number. For each positive number entered, print its square. Use the break statement to exit the loop when a negative number is entered.

```
echo "Enter a Negative Number To Exit"

while :
do
        echo "Enter a Number"
        read number

        if [[ $number -lt 0 ]]
        then
                echo "Got negative Number, Existing...."
                break
        else
                (( sq=$number*$number ))
                echo $number " square = $sq"
                echo
        fi
done
sachin@DESKTOP-MTQNNVD:/home/LinuxAssignment/Assignment2/PartC$ ./Q11.sh
Enter a Negative Number To Exit
Enter a Number
-6
Got negative Number, Existing....
sachin@DESKTOP-MTQNNVD:/home/LinuxAssignment/Assignment2/PartC$ ./Q11.sh
Enter a Negative Number To Exit
Enter a Number
56
56  square = 3136
```