Part C

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

```
saif_ubuntu@Mohammad-Saif-s-PC:~/assignment/Assign2$ bash Hello_World
Hello World
saif_ubuntu@Mohammad-Saif-s-PC:~/assignment/Assign2$ cat Hello_World
echo Hello World
```

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

```
saif_ubuntu@Mohammad-Saif-s-PC:~/assignment/Assign2$ cat Q2
name="CDAC Mumbai"
echo $name
saif_ubuntu@Mohammad-Saif-s-PC:~/assignment/Assign2$ bash Q2
CDAC Mumbai
```

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

```
saif_ubuntu@Mohammad-Saif-s-PC:~/assignment/Assign2$ cat Q3
echo "Enter the Number "
read num
echo "The Entered Number is = $num"
saif_ubuntu@Mohammad-Saif-s-PC:~/assignment/Assign2$ bash Q3
Enter the Number
6
The Entered Number is = 6
```

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

```
saif_ubuntu@Mohammad-Saif-s-PC:~/assignment/Assign2$ cat Q4
a=4
b=3
sum=`expr $a + $b`
echo Sum of $a and $b is $sum
saif_ubuntu@Mohammad-Saif-s-PC:~/assignment/Assign2$ bash Q4
Sum of 4 and 3 is 7
```

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

```
saif_ubuntu@Mohammad-Saif-s-PC:~/assignment/Assign2$ cat Q5
echo Enter a Number
read num
if ((num%2 == 0))
then
echo Even
else
echo Odd
fi
saif_ubuntu@Mohammad-Saif-s-PC:~/assignment/Assign2$ bash Q5
Enter a Number
6
Even
saif_ubuntu@Mohammad-Saif-s-PC:~/assignment/Assign2$ bash Q5
Enter a Number
3
Odd
```

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

```
saif_ubuntu@Mohammad-Saif-s-PC:~/assignment/Assign2$ cat Q6
for ((i=1;i<=5;i++))
do
echo $i
done
saif_ubuntu@Mohammad-Saif-s-PC:~/assignment/Assign2$ bash Q6
1
2
3
4
5
```

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

```
saif_ubuntu@Mohammad-Saif-s-PC:~/assignment/Assign2$ cat Q7
a=0
while ((a<6))
do
echo $a
a=$((a+1))
done

saif_ubuntu@Mohammad-Saif-s-PC:~/assignment/Assign2$ bash Q7
0
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".

```
saif_ubuntu@Mohammad-Saif-s-PC:~/assignment/Assign2$ cat Q8
if [ -f ./file.tx ]
then
echo File Found
else
echo File Not Found
fi
saif_ubuntu@Mohammad-Saif-s-PC:~/assignment/Assign2$ ls
Hello_World  Q2  Q3  Q4  Q5  Q6  Q7  Q8
saif_ubuntu@Mohammad-Saif-s-PC:~/assignment/Assign2$ bash Q8
File Not Found
saif_ubuntu@Mohammad-Saif-s-PC:~/assignment/Assign2$ touch file.txt
saif_ubuntu@Mohammad-Saif-s-PC:~/assignment/Assign2$ bash Q8
File Not Found
saif_ubuntu@Mohammad-Saif-s-PC:~/assignment/Assign2$ touch file.tx
saif_ubuntu@Mohammad-Saif-s-PC:~/assignment/Assign2$ bash Q8
File Found
saif_ubuntu@Mohammad-Saif-s-PC:~/assignment/Assign2$ |
```

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.

```
saif_ubuntu@Mohammad-Saif-s-PC:~/assignment/Assign2$ cat Q9
echo Enter Your Number
read num
if ((num > 10))
then
echo The Number is Greater than 10
else
echo The Number is smaller than 10
fi
saif_ubuntu@Mohammad-Saif-s-PC:~/assignment/Assign2$ bash Q9
Enter Your Number
11
The Number is Greater than 10
saif_ubuntu@Mohammad-Saif-s-PC:~/assignment/Assign2$ bash Q9
Enter Your Number
2
The Number is smaller than 10
saif_ubuntu@Mohammad-Saif-s-PC:~/assignment/Assign2$
```

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.

```
saif_ubuntu@Mohammad-Saif-s-PC:~/assignment/Assign2$ cat Q10
for ((i=1;i<=5;i++))
do
for((j=1;j<=10;j++))
do
echo -n "$((i*j)) "
done
echo
done
saif_ubuntu@Mohammad-Saif-s-PC:~/assignment/Assign2$ bash Q10
1 2 3 4 5 6 7 8 9 10
2 4 6 8 10 12 14 16 18 20
3 6 9 12 15 18 21 24 27 30
4 8 12 16 20 24 28 32 36 40
5 10 15 20 25 30 35 40 45 50
saif_ubuntu@Mohammad-Saif-s-PC:~/assignment/Assign2$
```

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.

```
saif_ubuntu@Mohammad-Saif-s-PC:~/assignment/Assign2$ cat Q12
cat: Q12: No such file or directory
saif_ubuntu@Mohammad-Saif-s-PC:~/assignment/Assign2$ cat Q11
echo Enter Your Number
read num
while ((num>0))
do
echo $((num*num))
echo Enter Your Number
read num
done
echo Coming out of The program
saif_ubuntu@Mohammad-Saif-s-PC:~/assignment/Assign2$ bash Q11
Enter Your Number
6
36
Enter Your Number
3
9
Enter Your Number
9
81
Enter Your Number
-6
Coming out of The program
```