

## Lab no.07

Name: Zulfiqar

Student's ID: BIT-24S-024

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### Task no.1

Q) Print numbers from 1 to 10 using a for loop.

```
for i in range(1, 11):  
    print(i)
```

```
1  
2  
3  
4  
5  
6  
7  
8  
9  
10
```

### Task no.2

Q) Print all even numbers between 1 and 20 using a while loop.

```
num = 2  
  
while num <= 20:  
    print(num)  
    num += 2
```

```
2  
4  
6  
8  
10  
12  
14  
16  
18  
20
```

### Task no.3

Q) Calculate the sum of numbers from 1 to 100 using a loop.

```
total = 0

for i in range(1, 101):
    total += i

print("Sum of numbers from 1 to 100 is:", total)
```

Sum of numbers from 1 to 100 is: 5050

### Task no.4

Q) Print the multiplication table of 5 using a loop.

```
for i in range(1, 11):
    print(f"5 x {i} = {5 * i}")
```

```
5 x 1 = 5
5 x 2 = 10
5 x 3 = 15
5 x 4 = 20
5 x 5 = 25
5 x 6 = 30
5 x 7 = 35
5 x 8 = 40
5 x 9 = 45
5 x 10 = 50
```

## Task no.5

Q) Find the factorial of a given number using a for loop.

```
num = int(input("Enter a number: "))
factorial = 1

if num < 0:
    print("Factorial does not exist for negative numbers.")
elif num == 0:
    print("The factorial of 0 is 1.")
else:
    for i in range(1, num + 1):
        factorial *= i
    print(f"The factorial of {num} is {factorial}.")
```

```
Enter a number: 4
The factorial of 4 is 24.
```

## Task no.6

Q) Iterate over a list of fruits and print each item.

```
fruits = ["apple", "banana", "cherry", "mango", "orange"]

for fruit in fruits:
    print(fruit)
```

```
apple
banana
cherry
mango
orange
```

## Task no.7

Q) Create a list of numbers and print only the odd numbers using a loop.

```
numbers = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
```

```
for num in numbers:  
    if num % 2 != 0:  
        print(num)
```

```
1  
3  
5  
7  
9
```