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Section: "A"

Lab : 05

Subject: Artificial Intelligence

Program: BS-IT

Task 01: Write a program that uses a loop to print numbers from 1 to 10.

Code:

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

Output:

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

```
PS D:\Users\junaid\Desktop\forpractice> █
```

Task 02: Write a function that calculates the sum of all numbers up to a given number using a loop.

Code :

```
def sumN(n):  
    total = 0  
    for i in range(1, n + 1):  
        total += i  
    return total  
number=10  
result = sumN(number)  
print("sum of numbers up to ",number,"is : ",result)
```

Output:

```
sum of numbers up to 10 is : 55
```

Task 03: Write code using loops and nested loops to create star

Code :

```
num=5
for i in range(1, num + 1):
    for j in range(i):
        print('*', end=' ')
    print()
```

Output:

```
*
* *
* * *
* * * *
* * * * *
```

Task 04: Write a function that takes a list of numbers and prints only the even numbers.

Code :

```
def print_even_numbers(numbers):  
    for number in numbers:  
        if number % 2 == 0:  
            print(number)  
  
numbers_list = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]  
print_even_numbers(numbers_list)
```

Output:

```
2  
4  
6  
8  
10  
PS D:\Users\junaaid\Desktop\forpractice>
```


