Darshan UNIVERSITY
योग: कर्मसु कौशलम्

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Python Programming - 2304CS401

Lab - 3

Working with Looping Statement

01) Write a program to print 1 to N using for and while loop

In [1]:
```
n = int(input("enter number : "))
for i in range(1,n+1):
    print(i)
```

```
enter number : 5
1
2
3
4
5
```

02)Write a program to print the sum of N numbers using for and while loop.

In [1]:
```
n = int(input("enter number : "))
sum=0
for i in range(1,n+1):
    sum+=i
print(f"sum of 1 to {n} is {sum}")
```

```
sum of 1 to 10 is 55
```

In [2]:
```
n = int(input("enter number : "))
sum=0
no = n
while(n>0):
    sum = sum + n
    n = n - 1
print(f"sum of 1 to {no} is {sum}")
```

```
sum of 1 to 10 is 55
```

03) Write a program to find the factorial of the given number.

In [3]:
```
n = int(input("enter number"))
fact=1
for i in range(1,n+1):
    fact*=i
print(f"factorial of {n} is {fact}")
```

```
factorial of 5 is 120
```

04) Write a program to print even numbers between given two numbers

In [2]:
```
n1 = int(input("enter number 1: "))
n2 = int(input("Enter number 2 :"))
if(n1%2!=0):
    n1 = n1+1
for i in range(n1,n2,2):
    print(i)
```

```
enter number 1: 10
Enter number 2 :20
10
12
14
16
18
```

05) Write a program to print the sum of digits of a given number

In [5]:
```
n12 = int(input("enter number"))
sum=0
while n12>0:
    n=n12%10
    sum+=n
    n12=int(n12/10)
print(sum)
```

```
15
```

06) Write a program to find whether the given number is prime or

In [6]:
```
n11 = int(input("enter number"))
flag=True
for i in range(2,n11):
    if n11%i==0:
        flag=False
        break
if flag:
    print(f"{n11} is prime")
else:
    print(f"{n11} is not prime")
```

```
7 is prime
```

07) Write a program to print a multiplication table of a given number

In [8]:
```
n = int(input("enter number"))
for i in range(1,11):
    print(f"{n} X {i} = {i*n}")
```

```
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
```

08) Write a program to print the sum of series 1 + 4 + 9 + 16 + 25 + 36 + ... for given N numbers

In [10]:
```
n6 = int(input("enter number"))
sum=0
for i in range(1,n6+1):
    sum+=i*i
print(sum)
```

```
55
```

09) WAP to print sum of series 1 – 2 + 3 – 4 + 5 – 6 + 7 ... n

In [6]:
```
n7 = int(input("enter number"))
sum=0
for i in range(1,n7+1):
    if i%2==0:
        sum-=i
    else:
        sum+=i

print(sum)
```

```
3
```

10) Write a program to find out prime numbers between given two numbers.

In [12]:
```
start = int(input("enter start"))
end = int(input("enter end"))
print(f"Prime Number From {start} to {end}")
for i in range(start,end+1):
    flag=True
    for j in range(2,i):
        if i%j==0:
            flag=False
    if flag:
        print(i)
```

```
Prime Number From 30 to 60
31
37
41
43
47
53
59
```