Darshan UNIVERSITY

योग: कर्मसु कौशलम्

Python for Data Science - 2305CS303

Lab - 3

Roll No. : 111

Name : Dhara Maru

1. WAP to print 1 to 10.

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

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

2. WAP to print 1 to n.

In [2]:
```
n =int(input("Enter n : "))
for i in range(1,n+1):
    print(i)
```

```
Enter n : 12
1
2
3
4
5
6
7
8
9
10
11
12
```

3.WAP to print odd numbers between 1 to n.

In [3]:
```
n =int(input("Enter n : "))
for i in range(1,n+1):
    if i % 2 !=0:
        print(i)
```

```
Enter n : 12
1
3
5
7
9
11
```

4. WAP to print numbers between two given numbers which is divisible by 2 but not divisible by 3.

In [4]:
```
n =int(input("Enter n : "))
n2 = int(input("Enter n2 :"))
for i in range(n,n2):
    if i % 2==0 and i%3 != 0:
        print(i)
```

```
Enter n : 23
Enter n2 :45
26
28
32
34
38
40
44
```

5. WAP to print sum of 1 to n numbers.

In [5]:
```
n =int(input("Enter n : "))
```

```
sum=0
for i in range(1,n+1):
    sum +=i
print(sum)
```

```
Enter n : 23
276
```

6.WAP to print sum of series 1 + 4 + 9 + 16 + 25 + 36 + ...n.

In [6]:
```
n =int(input("Enter n : "))
sum =0
for i in range(1,n+1):
    sum += (i*i)
print(sum)
```

```
Enter n : 20
2870
```

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

In [8]:
```
n =int(input("Enter n : "))
sum =0
for i in range(1,n+1):
    if i % 2!=0:
        sum +=i
    else:
        sum -= i
print(sum)
```

```
Enter n : 10
-5
```

8. WAP to print multiplication table of given number.

In [9]:
```
n =int(input("Enter n : "))
for i in range(1,11):
    print(n," X ",i," = ",n*i)
```

```
Enter n : 10
10  X  1  =  10
10  X  2  =  20
10  X  3  =  30
10  X  4  =  40
10  X  5  =  50
10  X  6  =  60
10  X  7  =  70
10  X  8  =  80
10  X  9  =  90
10  X  10  =  100
```

9. WAP to find factorial of the given number.

In [11]:
```
n = int(input("Enter n:"))
fact=1
for i in range(1,n+1):
    fact *= i
print(fact)
```

```
Enter n:5
120
```

10. WAP to find factors of the given number.

In [12]:
```
n = int(input("Enter n:"))
for i in range(1,n+1):
    if n%i==0:
        print(i)
```

```
Enter n:5
1
5
```

11. WAP to find whether the given number is prime or not.

In [14]:
```
n = int(input("Enter n:"))
prime=True
for i in range(2,n):
    if n%i==0:
        Prime=False
        break
if prime==True:
    print("Prime")
else:
    print("Not a prime")
```

```
Enter n:7
Prime
```

12. WAP to print sum of digits of given number.

In [21]:
```
n = int(input("Enter n:"))
sum=0
while n >0:
    d= n%10
    sum += d
    n=n//10
print(sum)
```

```
Enter n:123
6
```

13. WAP to check whether the given number is palindrome or not.

In [20]:
```
n = int(input("Enter n:"))
temp=n
rev=0
while n>0:
    d = n%10
    rev = rev * 10 +d
    n = n//10
if rev==temp:
    print("Palindrome")
else:
    print("Not palindrome")
```

```
Enter n:121
Palindrome
```

Patterns

14. Right angle triangle

In [25]:
```
n = int(input("Enter n:"))
for i in range(1, n + 1):
    for j in range(i):
        print("*", end=" ")
    print()
```

```
Enter n:4
*
* *
* * *
* * * *
```

15. Left Angle triangle

In [29]:
```
n = int(input("Enter n:"))
for i in range(1, n + 1):
    for j in range(n - i):
        print(" ", end="")

    for k in range(i):
        print("*", end="")
    print()
```

```
Enter n:4
   *
  **
 ***
****
```

16. Pyramid

In [30]:
```python
n = int(input("Enter n:"))
for i in range(1, n + 1):
    for j in range(n - i):
        print(" ", end="")

    for k in range(i):
        print("* ", end="")
    print()
```

```
Enter n:4
   *
  * *
 * * *
* * * *
```