

# python-programming-lab-3

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Python Programming - 2301CS404

Gohel Neel

Enrollment No. : 23010101089

Roll No. 340

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Lab - 3

## 1 for and while loop

### 1.0.1 01) WAP to print 1 to 10.

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

1  
2  
3  
4  
5  
6  
7  
8  
9  
10

### 1.0.2 02) WAP to print 1 to n.

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

Enter number 5

1  
2  
3

4  
5

### 1.0.3 03) WAP to print odd numbers between 1 to n.

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

Enter number 10

1  
3  
5  
7  
9

### 1.0.4 04) WAP to print numbers between two given numbers which is divisible by 2 but not divisible by 3.

```
[16]: n1 = int(input("Enter number 1 "))  
n2 = int(input("Enter number 2 "))  
  
for i in range(n1,n2+1):  
    if(i%2 == 0 and i%3 != 0):  
        print(i)
```

Enter number 1 5  
Enter number 2 15

8  
10  
14

### 1.0.5 05) WAP to print sum of 1 to n numbers.

```
[13]: n = int(input("Enter number "))  
ans = 0  
for i in range(1,n+1):  
    ans += i  
print(ans)
```

Enter number 5

15

**1.0.6 06) WAP to print sum of series  $1 + 4 + 9 + 16 + 25 + 36 + \dots n$ .**

```
[12]: n = int(input("Enter number "))
      ans = 0
      for i in range(1,n+1):
          ans = ans+(i*i)
      print(ans)
```

Enter number 5

55

**1.0.7 07) WAP to print sum of series  $1 - 2 + 3 - 4 + 5 - 6 + 7 \dots n$ .**

```
[11]: n = int(input("Enter number "))
      ans = 0
      for i in range(1,n+1):
          if(i%2==0):
              ans -= i
          else:
              ans+=i
      print(ans)
```

Enter number 4

-2

**1.0.8 08) WAP to print multiplication table of given number.**

```
[10]: n = int(input("Enter number "))
      for i in range(1,11):
          print(n , 'x' , i , '=' , n*i)
```

Enter number 5

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

1.0.9 09) WAP to find factorial of the given number.

```
[8]: n = int(input("Enter number "))
ans = 1
for i in range(1,n+1):
    ans*=i
print(n,'factorial is',ans)
```

Enter number 5

5 factorial is 120

1.0.10 10) WAP to find factors of the given number.

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

Enter number 4

1

2

4

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

```
[5]: n = int(input("Enter number "))
count = 0
for i in range(2,n):
    if(n%i==0):
        count+=1
if(count == 0):
    print(n,'is prime number')
else:
    print(n,'is not prime number')
```

Enter number 13

13 is prime number

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

```
[ ]: n = int(input("Enter number "))
ans=0
while(n!=0):
    ans+=(n%10)
    n //= 10
print(ans)
```

**1.0.13 13) WAP to check whether the given number is palindrome or not**

```
[21]: n = int(input("Enter number "))
temp = n
reverse = 0
while n > 0:
    digit = n % 10
    reverse = reverse * 10 + digit
    n = n // 10
if temp == reverse:
    print("Palindrome")
else:
    print("Not Palindrome")
```

Enter number 153

Not Palindrome

**1.0.14 14) WAP to print GCD of given two numbers.**

```
[24]: a = int(input("Enter number "))
b = int(input("Enter number "))
while b != 0:
    a, b = b, a % b
print(a)
```

Enter number 15

Enter number 5

5