Darshan UNIVERSITY
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Python Programming - 2301CS404

Lab - 3

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for and while loop

01) WAP to print 1 to 10.

In [2]:
```
for i in range(1,11):
    print(i)
```

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

02) WAP to print 1 to n.

In [4]:
```
n = int(input("Enter Number = "))

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

```
1
2
3
4
5
```

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

In [22]:
```
n = int(input("Enter Number = "))

for i in range(1,n+1):
    if (i%2!=0):
        print(i)
```

```
1
3
5
7
9
```

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

In [24]:
```
a = int(input("Enter Number = "))
b = int(input("Enter Number = "))

for i in range(a,b+1):
    if (i%2==0 and i%3!=0):
        print(i)
```

```
2
4
8
10
```

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

In [26]:
```
n = int(input("Enter Number = "))
sum=0

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

```
15
```

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

In [28]:
```
n = int(input("Enter Number = "))
sum=0

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

```
30
```

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

In [30]:
```
n = int(input("Enter Number = "))
sum=0

for i in range (1,n+1):
```

```
    if i%2==0:
        sum-=i
    else:
        sum+=i
print(sum)
```

```
2
```

08) WAP to print multiplication table of given number.

In [84]:
```
n = int(input("Enter Number = "))
mul=1

for i in range (1,11):
    mul=n*i
    print(n,"*",i,"=",mul)
```

```
23 * 1 = 23
23 * 2 = 46
23 * 3 = 69
23 * 4 = 92
23 * 5 = 115
23 * 6 = 138
23 * 7 = 161
23 * 8 = 184
23 * 9 = 207
23 * 10 = 230
```

09) WAP to find factorial of the given number.

In [38]:
```
n = int(input("Enter Number = "))
fect=1

for i in range (1,n+1):
    fect*=i
print(fect)
```

```
24
```

10) WAP to find factors of the given number.

In [44]:
```
n = int(input("Enter Number = "))

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

```
1
3
9
```

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

In [49]:
```
n = int(input("Enter Number = "))
flag=0

for i in range (2,n):
     if n%i==0:
```

```
        flag=1
        break

if flag==0:
    print("Number Is Prime")
else:
    print("Not Prime Number")
```

```
Number Is Prime
```

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

In [62]:
```
n = int(input("Enter Number = "))
sum=0

for i in range(1,n+1):
    rem = n%10
    sum+=rem
    n=n//10

print(sum)
```

```
14
```

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

In [70]:
```
n = int(input("Enter Number = "))
original=n
reverse=0

while(n>0):
    rem=n%10
    reverse = reverse*10+rem
    n=n//10

if original==reverse:
    print("Palindrome Numnber")
else:
    print("Not Palindrome Numnber")
```

```
Palindrome Numnber
```

14) WAP to print GCD of given two numbers.

In [96]:
```
a = int(input("Enter Number = "))
b = int(input("Enter Number = "))

while b:
    a,b = b,a%b
print("GCD = ",a)
```

```
GCD =  12
```