

# 1 Programming Assignment\_4

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## 1.1 1. Write a Python Program to Find the Factorial of a Number?

In [1]:

```
1 x = int(input("Enter the Number : "))
2
3 def factorial(x):
4     facto = 1
5     for i in range(1, x+1):
6         facto *= i
7     yield facto
8
9 y = factorial(x)
10 for z in y:
11     print("Factorial of ",x,"is",z)
```

Enter the Number : 5  
Factorial of 5 is 120

## 1.2 2. Write a Python Program to Display the multiplication Table?

In [6]:

```
1 x = int(input("Enter Number : "))
2
3 for i in range(1,11):
4     print(x,"*",i,"=",x*i)
```

Enter Number : 12  
12 \* 1 = 12  
12 \* 2 = 24  
12 \* 3 = 36  
12 \* 4 = 48  
12 \* 5 = 60  
12 \* 6 = 72  
12 \* 7 = 84  
12 \* 8 = 96  
12 \* 9 = 108  
12 \* 10 = 120

## 1.3 3. Write a Python Program to Print the Fibonacci sequence?

In [3]:

```
1 fibo = int(input("Enter the Number of Terms : "))
2
3 def fibonacci(fibo):
4     a,b = 0,1
5     while(a<=fibo):
6         a,b = b,a+b
7         yield a
8
9 x = fibonacci(fibo)
10
11 for y in x:
12     print(fibo,"th term is : ",y)
```

Enter the Number of Terms : 5

5 th term is : 8

## 1.4 4. Write a Python Program to Check Armstrong Number?

In [8]:

```
1 n = int(input("Enter the number : "))
2
3 sum = 0
4 order = len(str(n))
5 copy_n = n
6 while(n > 0):
7     digit = n%10
8     sum += digit**order
9     n = n//10
10
11 if (sum == copy_n):
12     print("Armstrong Number")
13 else:
14     print("Not an Armstrong Number")
15
```

Enter the number : 153

Armstrong Number

## 1.5 5. Write a Python Program to Find Armstrong Number in an Interval?

In [22]:

```
1 l = int(input("Enter Lower interval : "))
2 u = int(input("Enter Upper interval : "))
3
4 for num in range(1, u + 1):
5     order = len(str(num))
6     sum = 0
7     temp = num
8     while temp > 0:
9         digit = temp % 10
10        sum += digit ** order
11        temp //= 10
12
13    if num == sum:
14        print(num)
15
```

Enter Lower interval : 100  
Enter Upper interval : 200  
153

## 1.6 6. Write a Python Program to Find the Sum of Natural Numbers?

In [5]:

```
1 x = int(input("Enter the Number : "))
2
3 def sum(x):
4     summ = 0
5     for i in range(1, x+1):
6         summ += i
7     yield summ
8
9 y = sum(x)
10 for z in y:
11     print("Sum : ",z)
```

Enter the Number : 5  
Sum : 15