

In [1]: *# Write a Python program to check if a number is positive, negative or # zero.*

```
num = int(input("Enter the Number:"))
if num>=0:
    if num==0:
        print("Zero")
    else:
        print("Positive Number")
else:
    print("Neagtive Number")
```

Enter the Number:-3

Neagtive Number

In [2]: *# Write a Python program to get the Factorial number of given number*

```
num =int(input("Enter The Number"))
factorial=1
if num< 0:
    print("This is not a factorial number")
elif num==0:
    print("The Factorial of 0 is 1")
else:
    for i in range(1,num+1):
        factorial = factorial*i
    print("The Factoraiial of",num,"is",factorial)
```

Enter The Number5

The Factoraiial of 5 is 1

The Factoraiial of 5 is 2

The Factoraiial of 5 is 6

The Factoraiial of 5 is 24

The Factoraiial of 5 is 120

In [3]: *# Write a Python program to get the Fibonacci series of given range.*

```
num = int(input("Enter the numbers"))
#first two numbers
a,b =0,1
count = 0

if num<=0:
    print("Enter a positive Number")
elif num ==0:
    print("Fiboonaci Sequence upto",num,":")
    print(a)
else:
    print("Fiboonaci Sequence:")
    while count< num:
        print(a)
        c=a+b
        a=b
        b=c
        count+=1
```

```
Enter the numbers8
Fiboonaci Sequence:
0
1
1
2
3
5
8
13
```

In []: *# How memory is managed in Python?*

Ans.) Memory management **in** Python involves a private heap containing **all** Python objects. The management of this private heap **is** ensured internally by the Python interpreter.

In []: *# What is the purpose continue statement in python?*

Ans.) The **continue** keyword **is** used to end the current iteration **in** a **for** loop **and** continues to the **next** iteration.

In [4]: *# Write python program that swap two number with temp variable*

```
a = 6
b = 8
#create temp variable and swap the values
temp = a
a = b
b = temp

print("The Value of a after swapping:{}".format(a))
print("The Value of b after swapping:{}".format(b))
```

The Value of a after swapping:8

The Value of b after swapping:6

In [5]: *# Write python program that swap two number without temp variable.*

```
a = 5
b = 10
a,b = b,a
print("a =", a)
print("b =", b)
```

a = 10

b = 5

In [6]: *# Write a Python program to find whether a given number is even or odd,
print out an appropriate message to the user.*

```
num = int(input("Enter a number: "))
if (num % 2) == 0:
    print("{}is Even".format(num))
else:
    print("{}is Odd".format(num))
```

Enter a number: 5

5is Odd

In [13]: *# Write a Python program to test whether a passed letter is a vowel or not.*

```
std = input("Enter a letter of the alphabet: ")

if std in ('a', 'e', 'i', 'o', 'u'):
    print("%s is a vowel." % std)
else:
    print("%s is a consonant." % std)
```

Enter a letter of the alphabet: i

i is a vowel.

In [14]: *# Write a Python program to sum of three given integers. However, if two values*

```
def sum_three(x, y, z):  
    if x == y or y == z or x==z:  
        sum = 0  
    else:  
        sum = x + y + z  
    return sum  
print(sum_three(2, 1, 2))  
print(sum_three(3, 2, 2))  
print(sum_three(2, 2, 2))  
print(sum_three(1, 2, 3))
```

0
0
0
6

In [19]: *# Write a Python program that will return true if the two given integer values*

```
def number(x, y):  
    if x == y or (x-y) == 5 or (x+y) == 5:  
        return True  
    else:  
        return False  
print(number(7, 2))  
print(number(3, 2))  
print(number(2, 2))  
print(number(7, 3))  
print(number(27, 53))
```

True
True
True
False
False

In [21]: *# Write a python program to sum of the first n positive integers*

```
n = int(input("Enter a Positive Integer:"))  
total = n*(n+1)/2  
print("The sum of first",n,"Positive Integer",total)
```

Enter a Positive Integer:10
The sum of first 10 Positive Integer 55.0

In [22]: *# Write a Python program to calculate the length of a string*

```
str1 = "addidas and cantabil"  
len(str1)
```

Out[22]: 20

```
In [29]: # Write a Python program to count the number of characters (character-frequency,
str2 = "UttarPradesh"

freq = {}

for i in str2:
    if i in freq:
        freq[i] += 1
    else:
        freq[i] = 1

print("Count of all characters in Gujarat is :\n " + str(freq))
```

Count of all characters in Gujarat is :
{'U': 1, 't': 2, 'a': 2, 'r': 2, 'P': 1, 'd': 1, 'e': 1, 's': 1, 'h': 1}

```
In [ ]: # What are negative indexes and why are they used?
```

Ans.) Negative Indexing is used to in Python to begin slicing from the end of
Slicing in Python gets a sub-string from a string.
The slicing range is set as parameters i.e. start, stop and step

```
In [35]: # Write a Python program to count occurrences of a substring in a string.
```

```
str2 = "The quick brown fox jumps over the lazy dog."
print()
print(str2.count("dog"))
```

1

```
In [2]: # Write a Python program to count the occurrences of each word in a given sentence
```

```
str2 = "Eat an a apple a doctor a way"

freq = {}

for i in str2:
    if i in freq:
        freq[i] += 1
    else:
        freq[i] = 1
print("Count of all characters in Eat an a apple a doctor a way is :\n " + str(freq))
```

Count of all characters in Eat an a apple a doctor a way is :
{'E': 1, 'a': 7, 't': 2, ' ': 7, 'n': 1, 'p': 2, 'l': 1, 'e': 1, 'd': 1, 'o': 2, 'c': 1, 'r': 1, 'w': 1, 'y': 1}

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