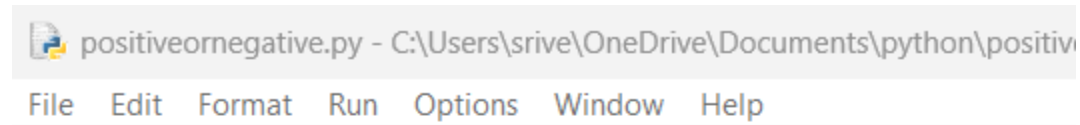


1. Check if a Number is Positive and Negative in Python

Given an integer input, the objective is to check whether the given integer is Positive or Negative. In order to do so we have the following method,

1. Method 1: Using Brute Force
2. Method 2: Using Nested if-else Statements

Method 1: Using Brute Force



```
num = 1239
if num > 0:
    print('Positive')
elif num < 0:
    print('Negative')
else:
    print('Zero')
```

Output:

```
>>> |
      |===== RESTART: C:\Users\srive\OneDrive\
      |Positive
>>> |
```

Method 2: Using Nested if-else Statements

```
positiveornegative1.py - C:/Users/srive/OneDrive/Document
File Edit Format Run Options Window Help
#method 2
num = -15
if num>=0:
    if num==0:
        print('Zero')
    else:
        print("Positive")
else:
    print("Negative")
```

Output:

```
.>> |
      ===== RESTART: C:/Users/srive/OneDrive/Document
      Negative
.>> |
```

2.Check Whether a Number is Even or Odd in Python

Given an integer input num, the objective is to write a code to Check Whether a Number is Even or Odd in Python. To do so we check if the number is divisible by 2 or not, it's Even if it's divisible otherwise Odd.

Example

Input : num = 7

Output : Odd

Method 1 : Using Brute Force

```
evenorodd1.py - C:/Users/srive/OneDrive/Documents/python/
File Edit Format Run Options Window Help
num = int(input("Enter a Number:"))
if num % 2 == 0:
    print("Given number is Even")
else:
    print("Given number is Odd")
```

Output:

```
>>> ===== RESTART: C:/User
Enter a Number:7
Given number is Odd
>>> |
```

Method 2 : Using Ternary Operator

```
evenorodd2.py - C:/Users/srive/OneDrive/Documents/python/evenorodd2.
File Edit Format Run Options Window Help
num = 7
print("Even") if num%2 == 0 else print("Odd")
```

Output:

```
>>> ===== RESTART: C:/Users/srive/One
Odd
>>> |
```

3.Find the Sum of The First N Natural Numbers in Python

Given an integer input the objective is to write a code to Find the Sum of First N Natural Numbers in C++. To do so we simply keep adding the value of the iter variable using a for loop.

Example

Input : num = 8

Output : 36

Where first 8 number is 1, 2, 3, 4, 5, 6, 7, 8

Sum of numbers = $1 + 2 + 3 + 4 + 5 + 6 + 7 + 8 = 36$

Method 1 : Using for Loop

In this method we'll add all the natural numbers until the given integer input using for loop in Python.

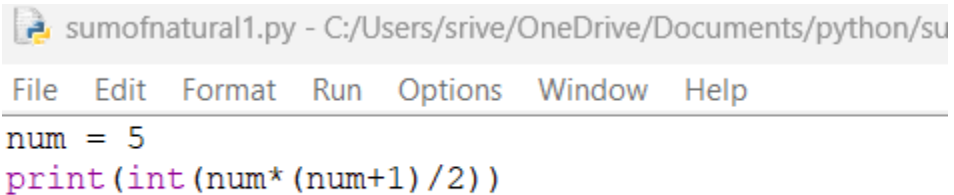
```
sumofnatural.py - C:/Users/srive/OneDrive/Documents/pytho
File Edit Format Run Options Window Help
num = 8
sum = 0
for i in range(num+1):
    sum+=i
print(sum)
```

Output:

```
>> |
===== RESTART: C:/Users/srive/O:
36
>> |
```

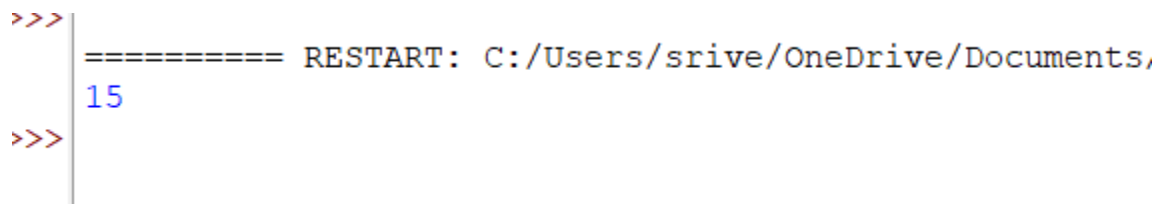
Method 2 : Using Formula for the Sum of Nth Term

In this Method we use the formula for finding the sum of N term.



```
sumofnatural1.py - C:/Users/srive/OneDrive/Documents/python/su
File Edit Format Run Options Window Help
num = 5
print(int(num*(num+1)/2))
```

Output:



```
>>> |===== RESTART: C:/Users/srive/OneDrive/Documents,
    |15
>>> |
```