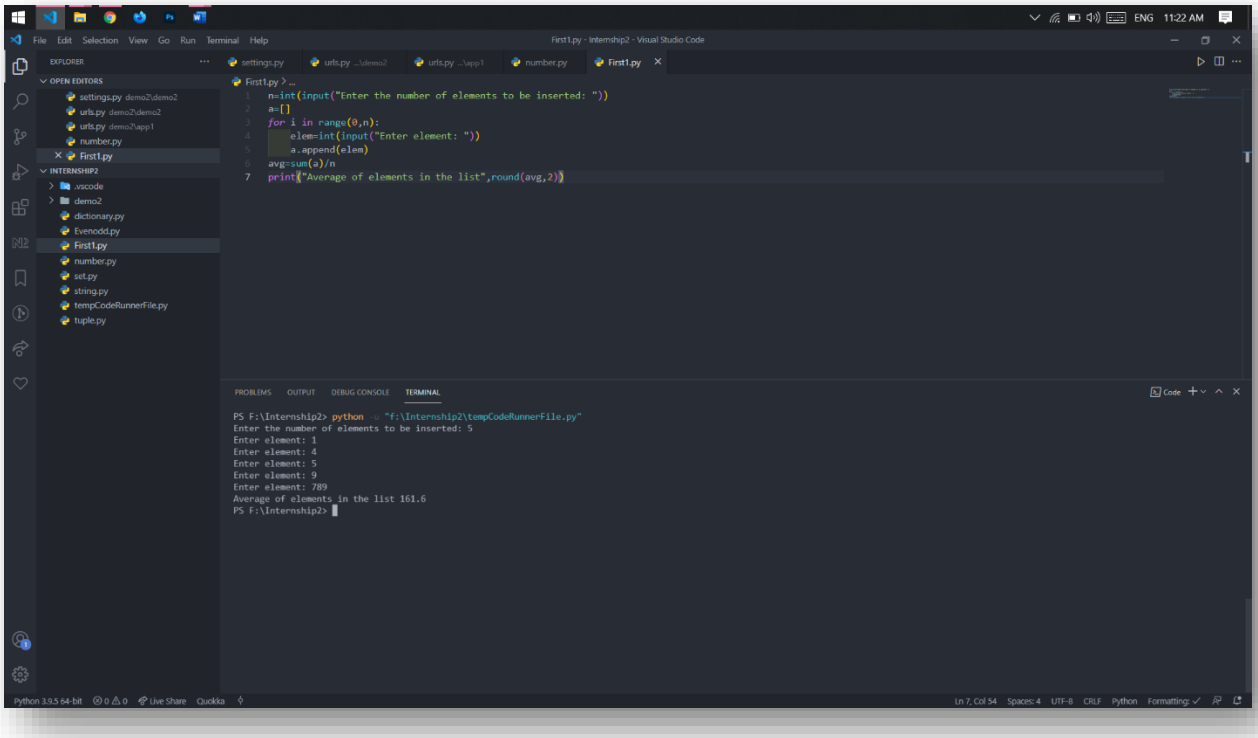
TASK

1. Calculate average of 5 numbers.

   Code: -

```python
n=int(input("Enter the number of elements to be inserted: "))
a=[]
for i in range(0,n):
    elem=int(input("Enter element: "))
    a.append(elem)
avg=sum(a)/n
print("Average of elements in the list",round(avg,2))
```

   Output: -

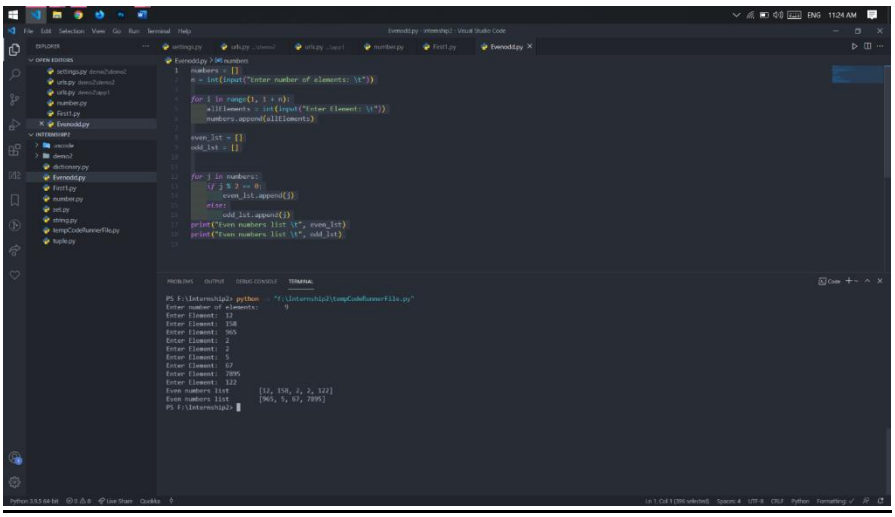


2. Check whether number is even or odd.

Code: -

```python
numbers = []
n = int(input("Enter number of elements: \t"))

for i in range(1, 1 + n):
    allElements = int(input("Enter Element: \t"))
    numbers.append(allElements)

even_lst = []
odd_lst = []


for j in numbers:
    if j % 2 == 0:
        even_lst.append(j)
    else:
        odd_lst.append(j)
print("Even numbers list \t", even_lst)
print("Even numbers list \t", odd_lst)

```

Output:-

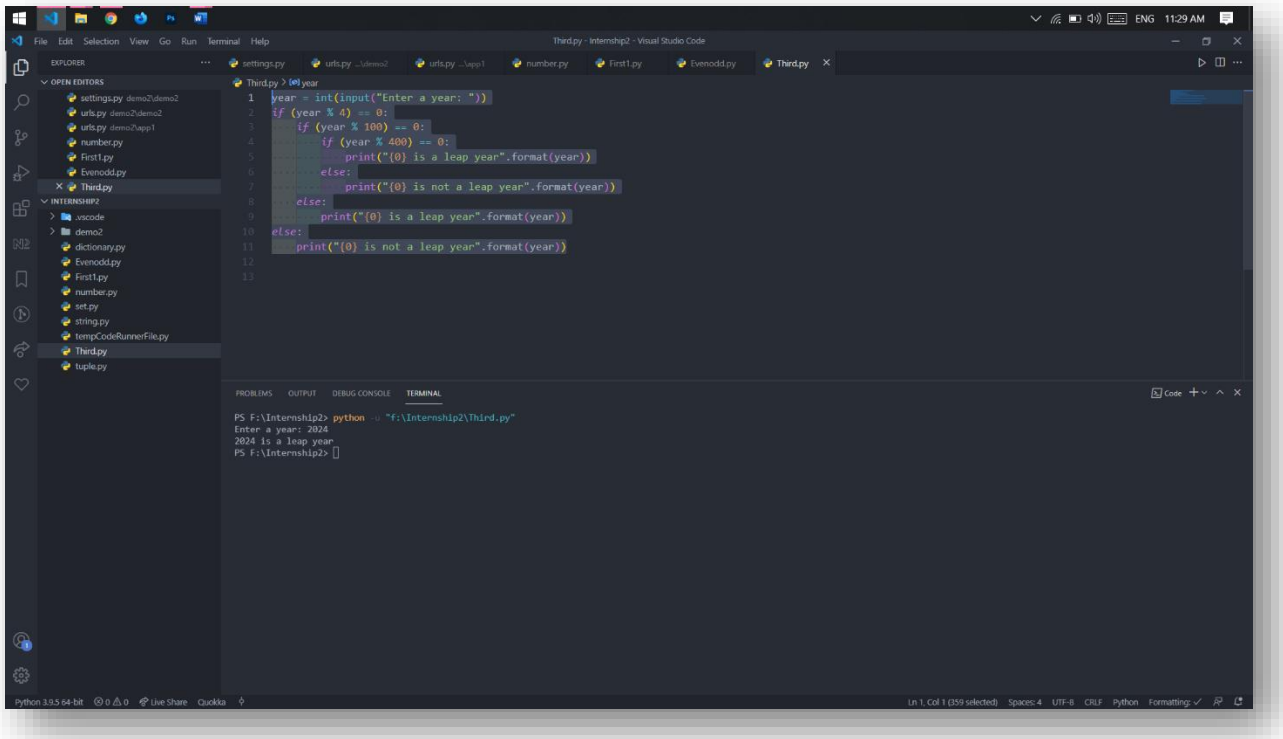


3. Take a year and check whether it is leap year or not

Code :-

```python
year = int(input("Enter a year: "))
if (year % 4) == 0:
    if (year % 100) == 0:
        if (year % 400) == 0:
            print("{0} is a leap year".format(year))
        else:
            print("{0} is not a leap year".format(year))
    else:
        print("{0} is a leap year".format(year))
else:
    print("{0} is not a leap year".format(year))
```

Output: -

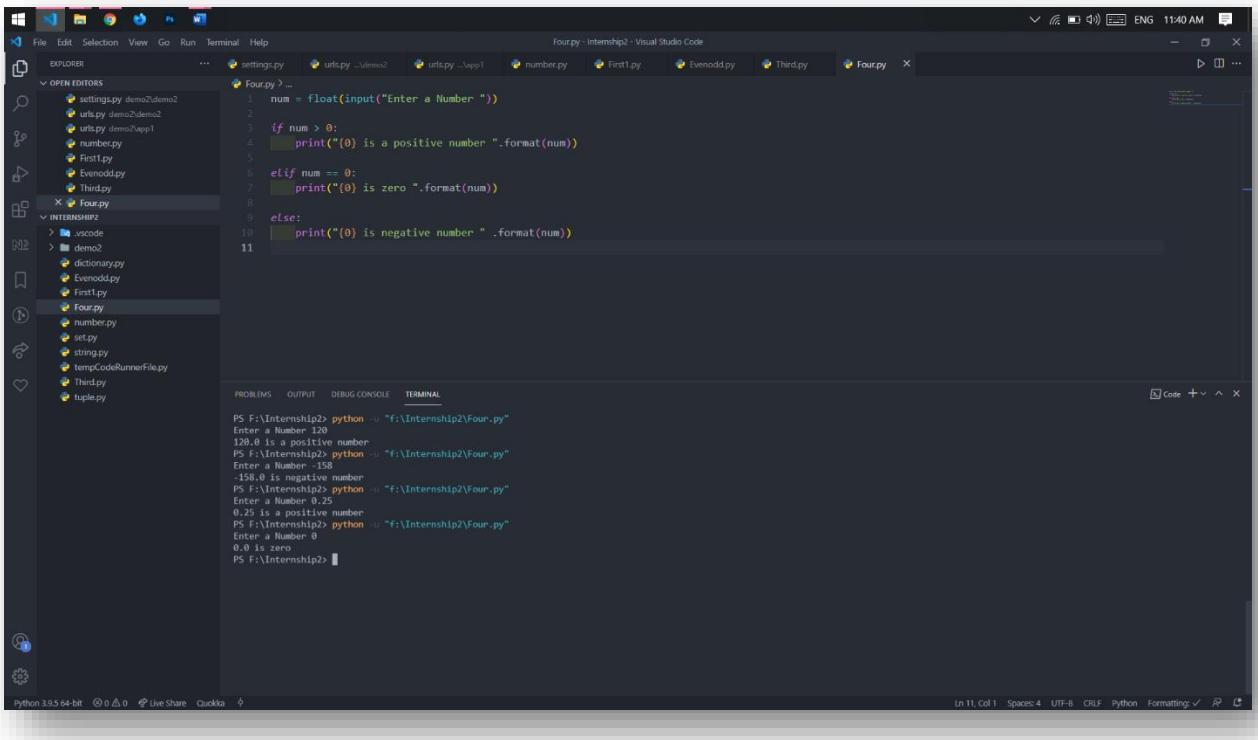


4. Take a number and check whether it is zero, positive or negative.

   Code: -

```python
num = float(input("Enter a Number "))

if num > 0:
    print("{0} is a positive number ".format(num))

elif num == 0:
    print("{0} is zero ".format(num))

else:
    print("{0} is negative number " .format(num))
```

Output:

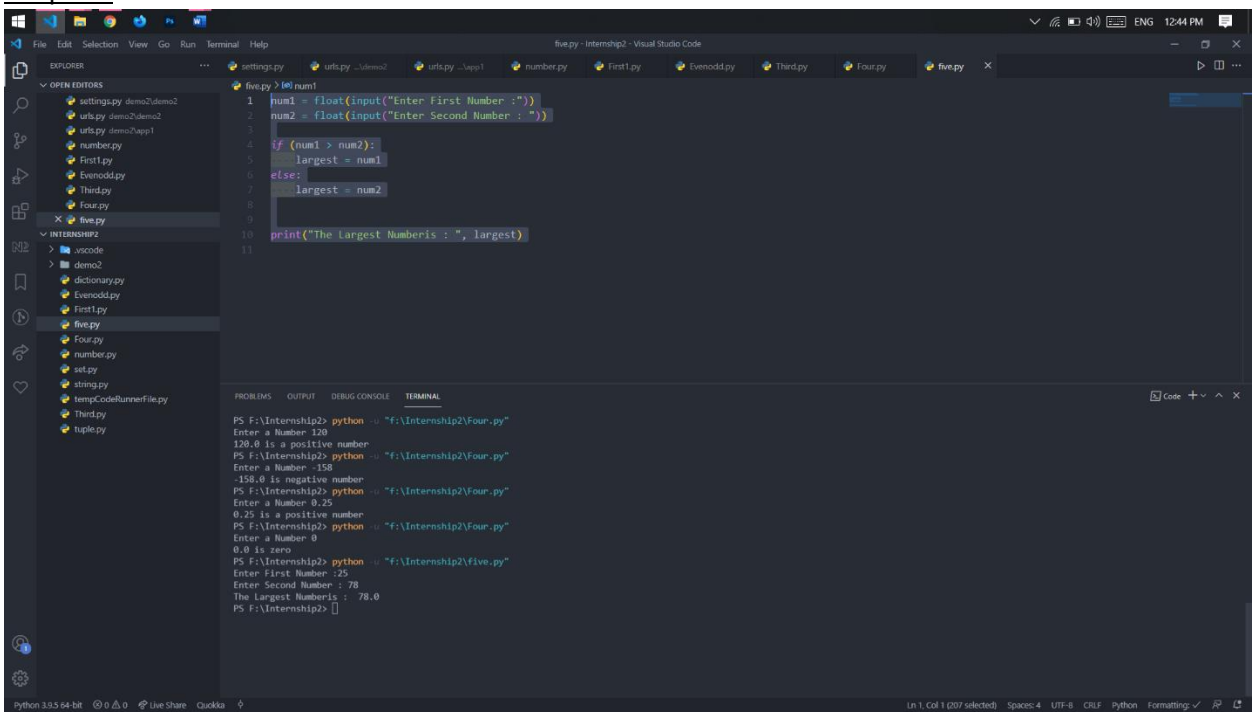


5. Take 2 numbers and display greatest number. (Also check equal number condition) -

Code: -

```python
num1 = float(input("Enter First Number :"))
num2 = float(input("Enter Second Number : "))

if (num1 > num2):
    largest = num1
else:
    largest = num2


print("The Largest Numberis : ", largest)

```

Output: -

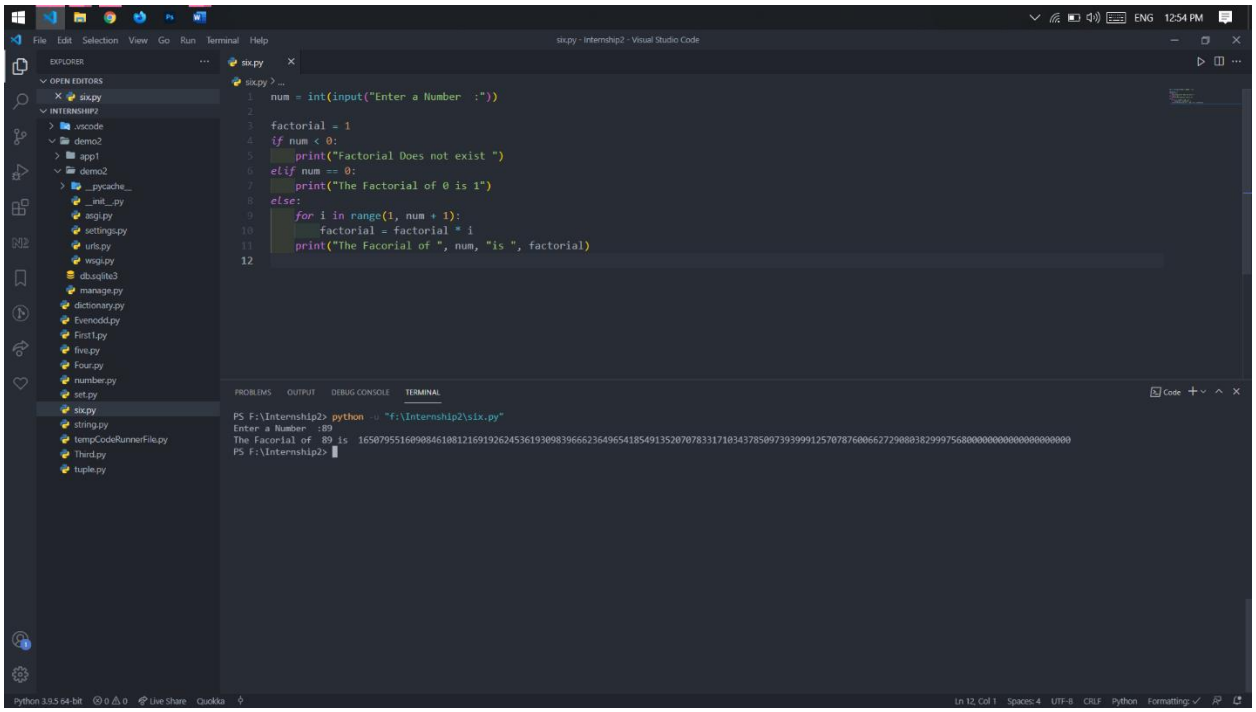


6. Take a number and find factorial of that number.

Code: -

```python
num = int(input("Enter a Number  :"))

factorial = 1
if num < 0:
    print("Factorial Does not exist ")
elif num == 0:
    print("The Factorial of 0 is 1")
else:
    for i in range(1, num + 1):
        factorial = factorial * i
    print("The Facorial of ", num, "is ", factorial)

```

Output: -

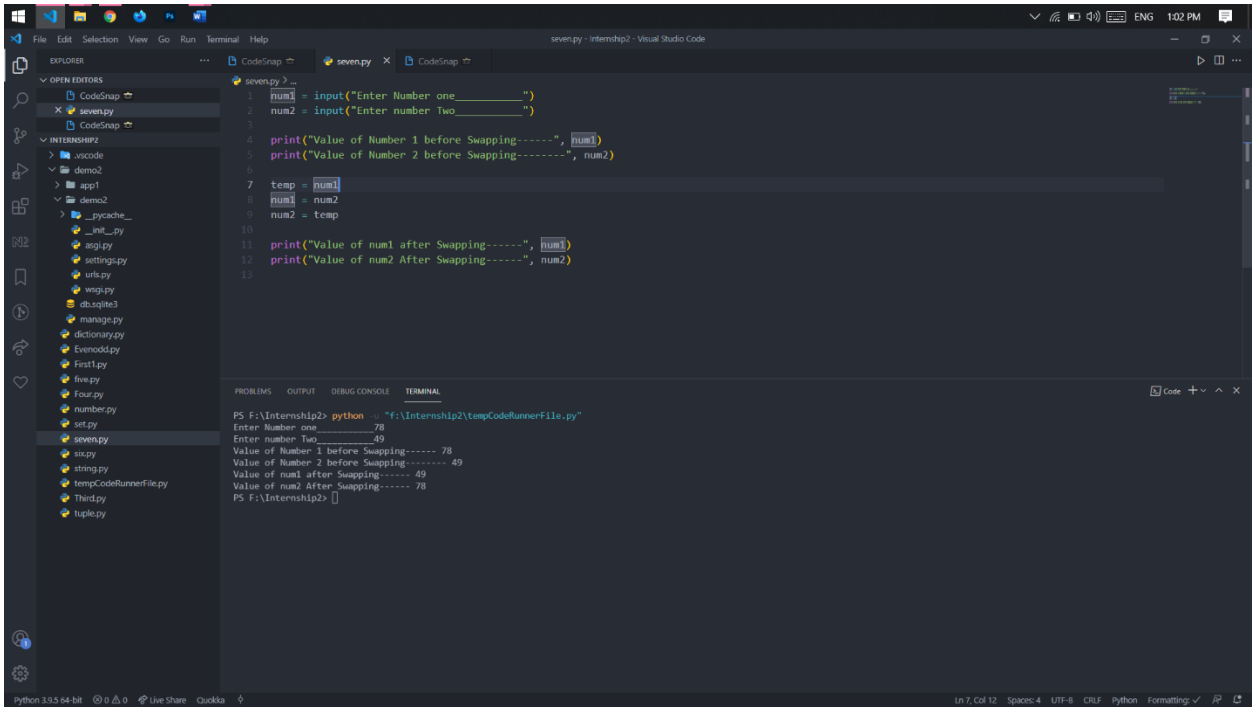


7. Write a program to swap 2 numbers using third variable.

Code:

```
num1 = input("Enter Number one__________")
num2 = input("Enter number Two__________")

print("Value of Number 1 before Swapping------", num1)
print("Value of Number 2 before Swapping--------", num2)

temp = num1
num1 = num2
num2 = temp

print("Value of num1 after Swapping------", num1)
print("Value of num2 After Swapping------", num2)
```

Output:

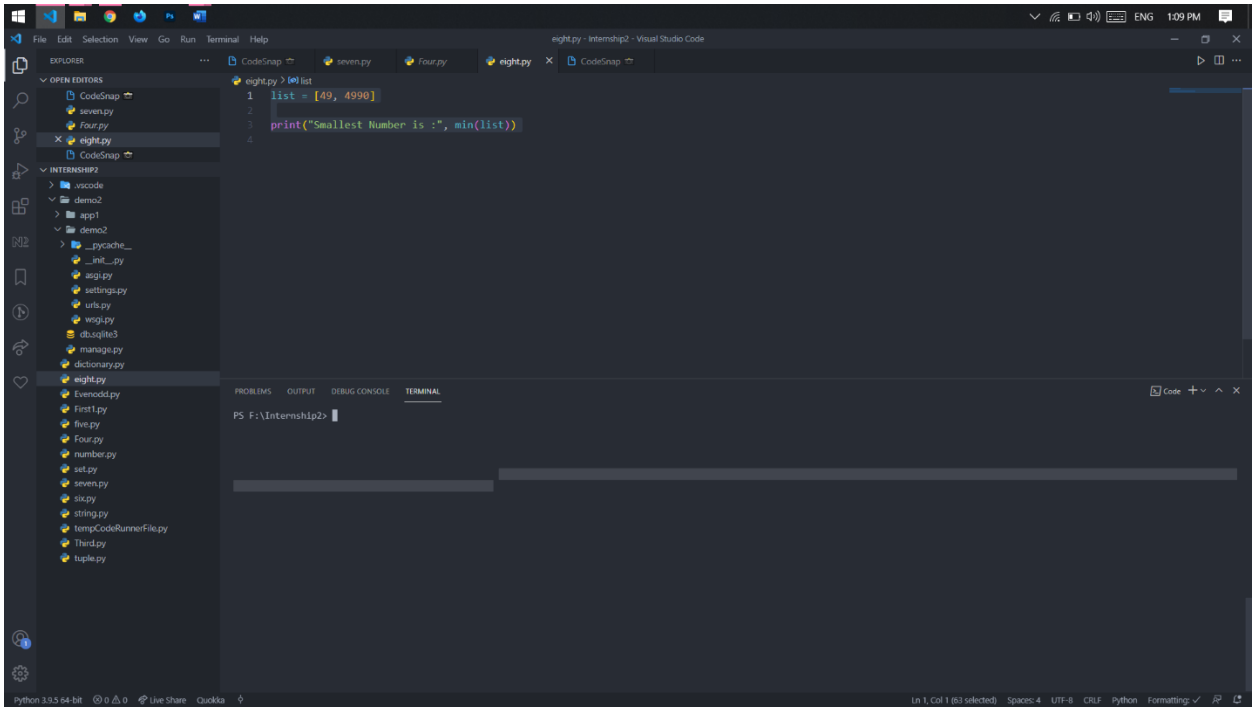


8. Take 2 numbers and find smallest number.

Code:

```
list = [49, 4990]

print("Smallest Number is :", min(list))

```

Output:



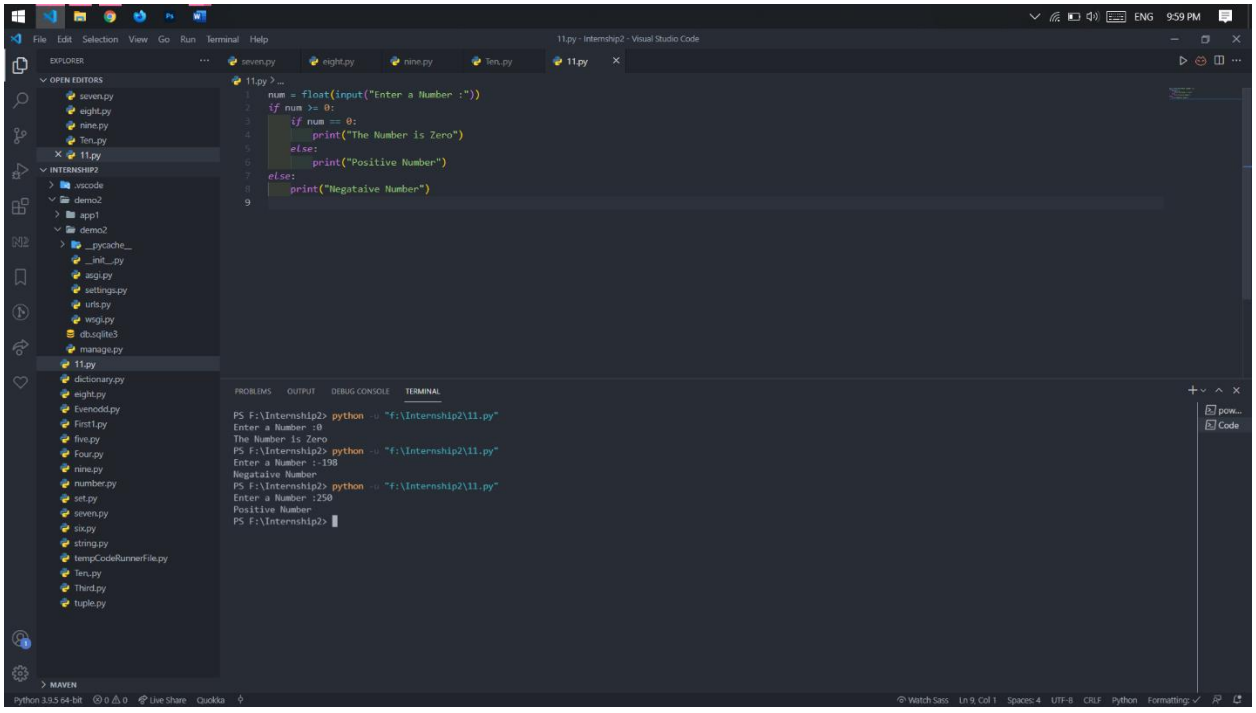
Output :

9. Take a number and check whether it is zero, positive or negative using nested IF…ELSE statement.

Code:

```python
num = float(input("Enter a Number :"))
if num >= 0:
    if num == 0:
        print("The Number is Zero")
    else:
        print("Positive Number")
else:
    print("Negataive Number")

```

Output:

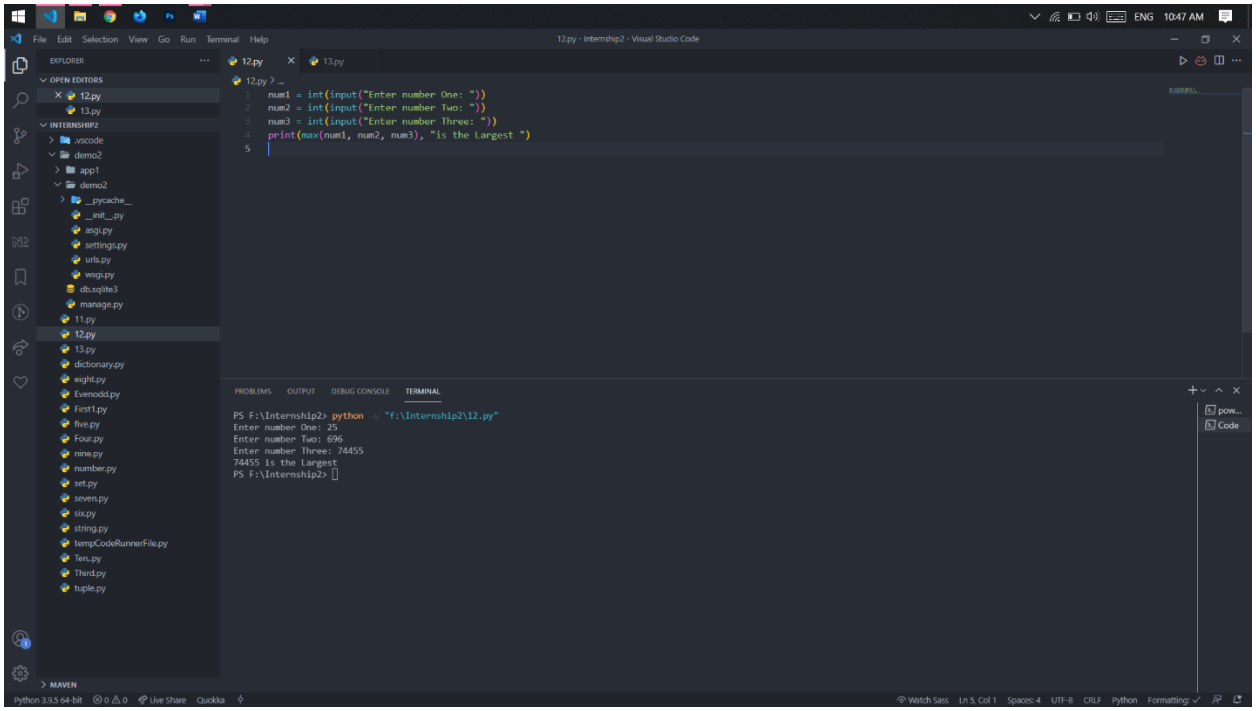


10.Take 3 numbers and find greatest number using nested IF….ELSE statement.

Code :

```
num1 = int(input("Enter number One: "))
num2 = int(input("Enter number Two: "))
num3 = int(input("Enter number Three: "))
print(max(num1, num2, num3), "is the Largest ")
```

Output:

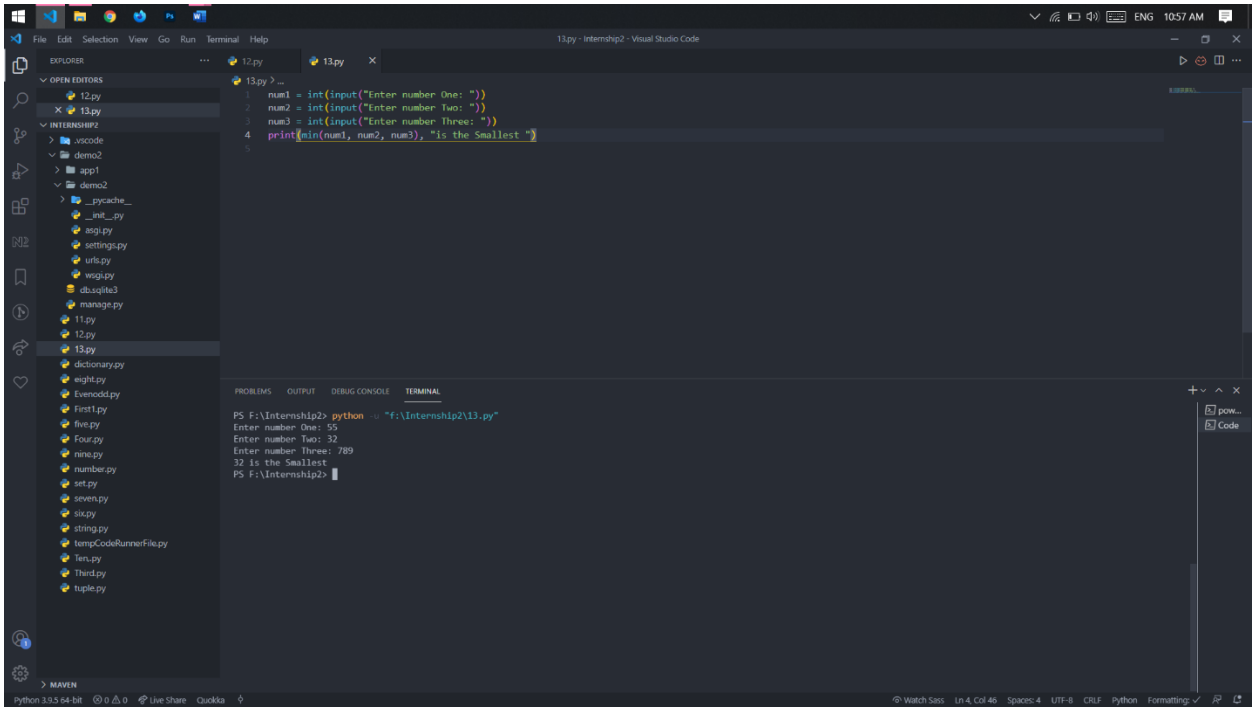


11.Take 3 numbers and find smallest number using logical operator.

Code: -

```python
num1 = int(input("Enter number One: "))
num2 = int(input("Enter number Two: "))
num3 = int(input("Enter number Three: "))
print(min(num1, num2, num3), "is the Smallest ")

```

Output: -

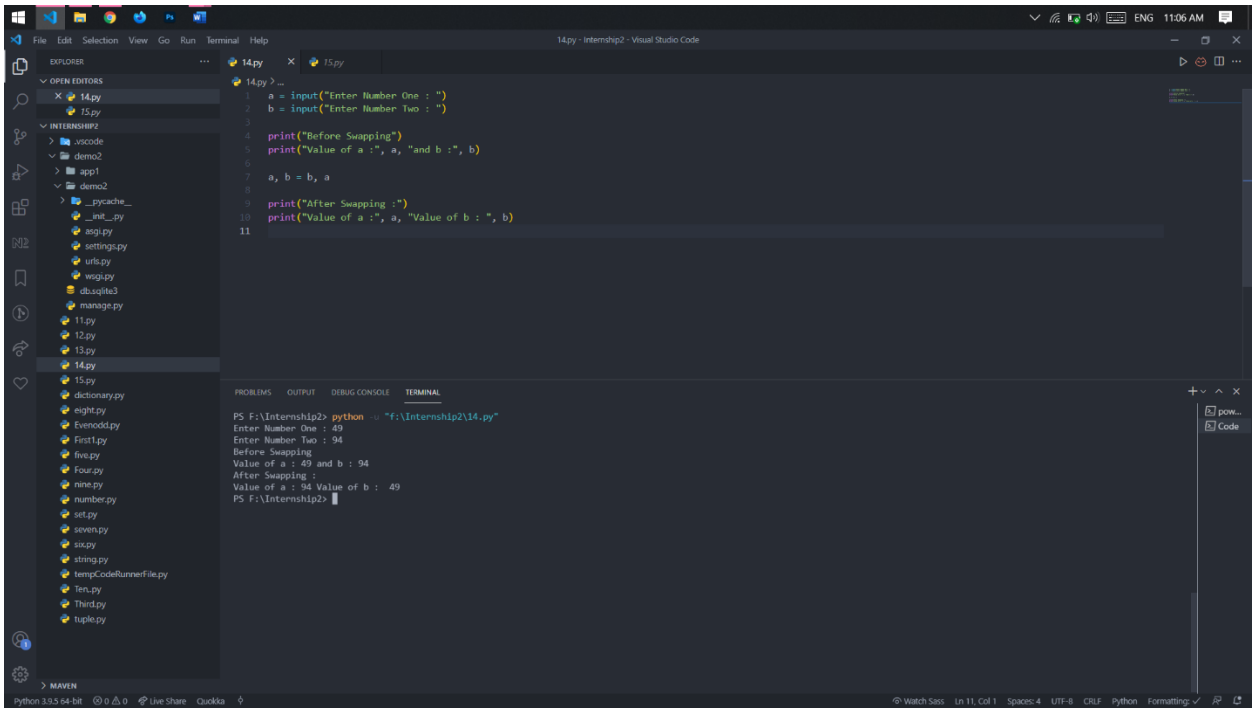


12. Write a program to swap 2 numbers without taking third variable.

Code:

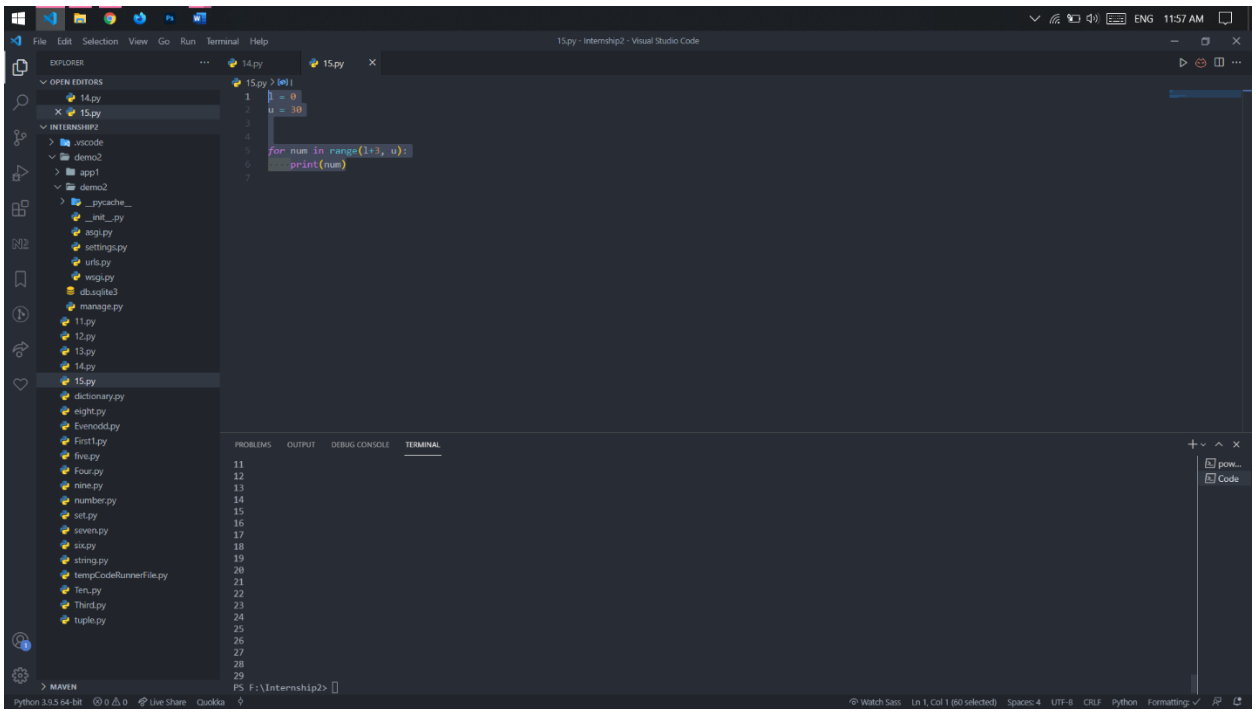
```python
a = input("Enter Number One : ")
b = input("Enter Number Two : ")

print("Before Swapping")
print("Value of a :", a, "and b :", b)

a, b = b, a

print("After Swapping :")
print("Value of a :", a, "Value of b : ", b)
```

Output:



13. Take starting number and ending number from the user and print following series.

Code :

```
l = 0
u = 30


for num in range(l+3, u):
    print(num)
```

Output: