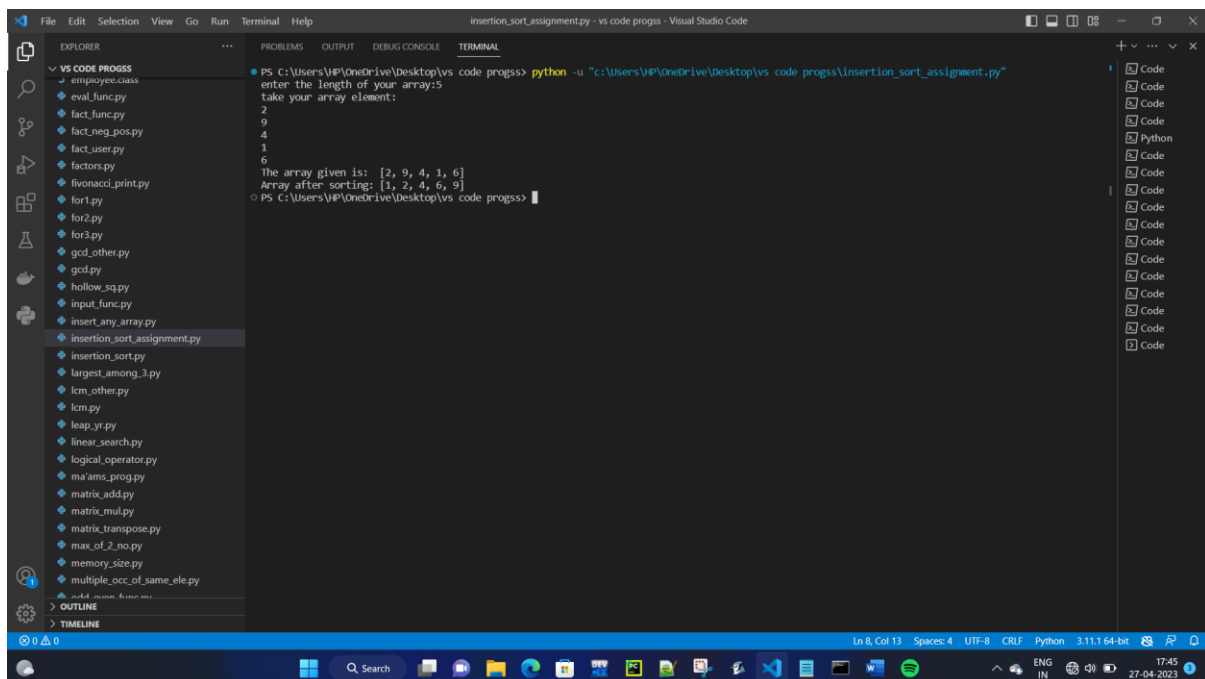


Q.20>>Impliment Insertion sort using python.

```
#Insertion Sort
def insertion_Sort(arr):
    for i in range(1,len(arr)):
        temp=arr[i]
        j=i-1
        while j >=0 and temp < arr[j] :
            arr[j+1] = arr[j]
            j -= 1
            arr[j+1] = temp

#main func
arr = [] #user input
n=int(input("enter the length of your array:"))
print("take your array element:")
for i in range(0,n):
    l=int(input())
    arr.append(l)
print("The array given is: ", arr)
insertion_Sort(arr)
print("Array after sorting:",arr)
```



```
File Edit Selection View Go Run Terminal Help
insertion_sort_assignment.py - vs code progs - Visual Studio Code

EXPLORER
VS CODE PROGS
  employee.class
  eval_func.py
  fact_func.py
  fact_neg_pos.py
  fact_user.py
  factors.py
  fibonacci_print.py
  for1.py
  for2.py
  for3.py
  gcd_other.py
  gcd.py
  hollow_sq.py
  input_func.py
  insert_arr_array.py
  insertion_sort_assignment.py
  insertion_sort.py
  largest_among_3.py
  lcm_other.py
  lcm.py
  leap_yr.py
  linear_search.py
  logical_operator.py
  ma'am_prog.py
  matrix_add.py
  matrix_mul.py
  matrix_transpose.py
  max_of_2_no.py
  memory_size.py
  multiple_occ_of_same_ele.py
  ...
  > OUTLINE
  > TIMELINE

TERMINAL
PS C:\Users\HP\OneDrive\Desktop\vs code progs> python -u "c:\Users\HP\OneDrive\Desktop\vs code progs\insertion_sort_assignment.py"
enter the length of your array:5
take your array element:
2
9
4
1
6
The array given is: [2, 9, 4, 1, 6]
Array after sorting: [1, 2, 4, 6, 9]
PS C:\Users\HP\OneDrive\Desktop\vs code progs>

Ln 8, Col 13  Spaces: 4  UTF-8  CR/LF  Python  3.11.1 64-bit  17:45
27-04-2023
```