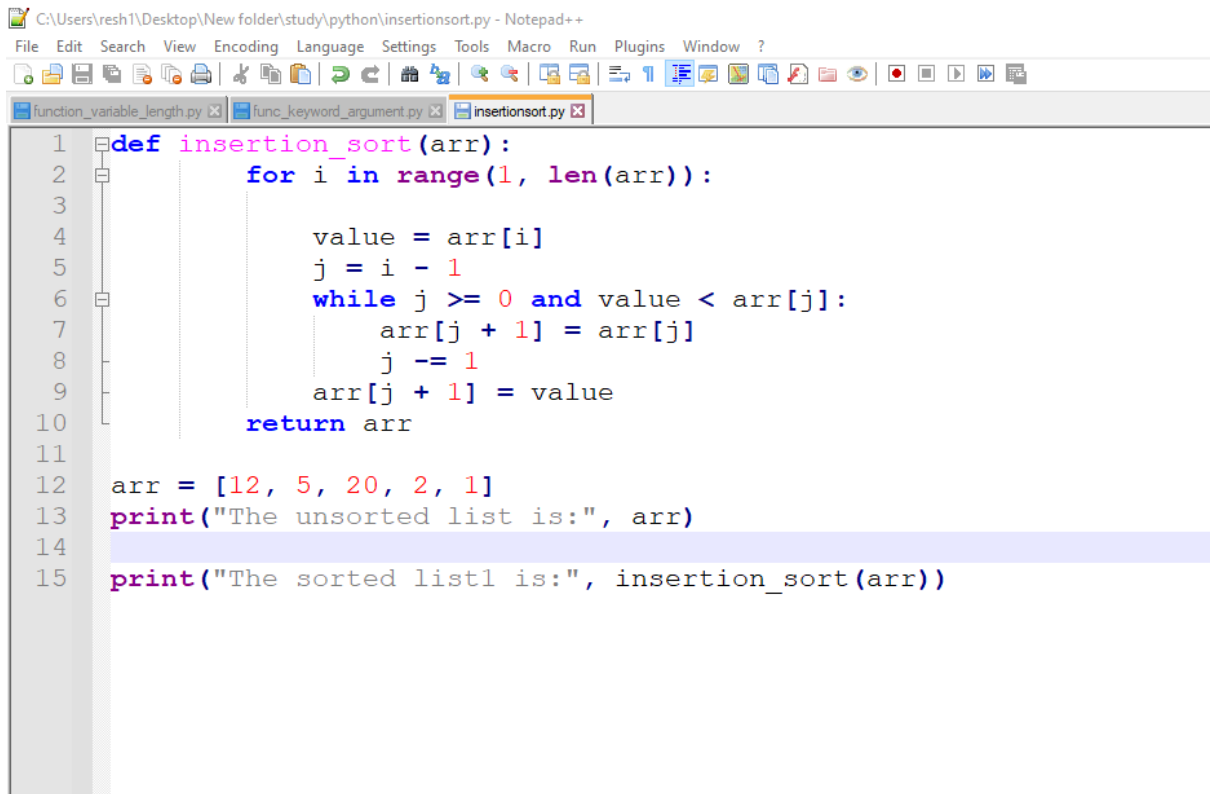


Assignment 3

Day 3

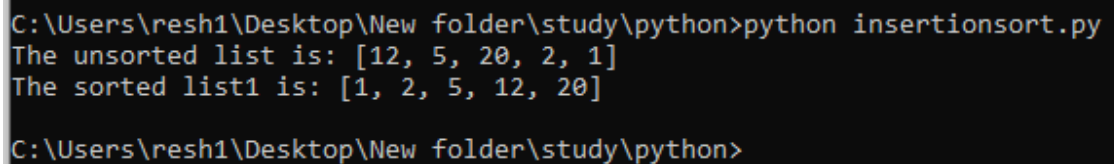
1. Insertion Sort



```
C:\Users\resh1\Desktop\New folder\study\python\insertionsort.py - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?

1 def insertion_sort(arr):
2     for i in range(1, len(arr)):
3
4         value = arr[i]
5         j = i - 1
6         while j >= 0 and value < arr[j]:
7             arr[j + 1] = arr[j]
8             j -= 1
9         arr[j + 1] = value
10    return arr
11
12 arr = [12, 5, 20, 2, 1]
13 print("The unsorted list is:", arr)
14
15 print("The sorted list1 is:", insertion_sort(arr))
```

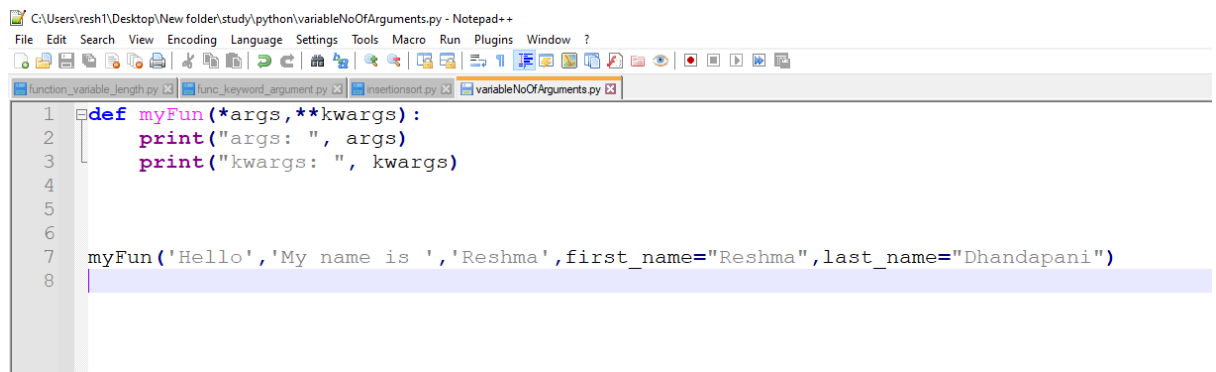
Output:



```
C:\Users\resh1\Desktop\New folder\study\python>python insertionsort.py
The unsorted list is: [12, 5, 20, 2, 1]
The sorted list1 is: [1, 2, 5, 12, 20]

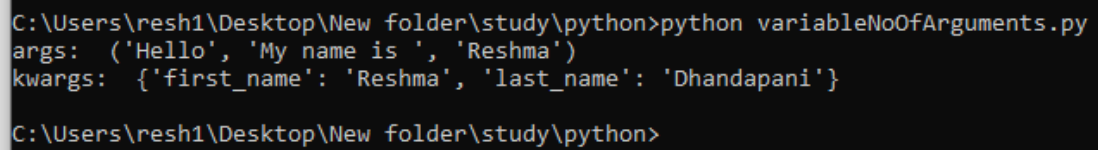
C:\Users\resh1\Desktop\New folder\study\python>
```

2.



```
C:\Users\resh1\Desktop\New folder\study\python\variableNoOfArguments.py - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
function_variable_length.py func_keyword_argument.py insertion_sort.py variableNoOfArguments.py
1 def myFun(*args,**kwargs):
2     print("args: ", args)
3     print("kwargs: ", kwargs)
4
5
6
7 myFun('Hello','My name is ','Reshma',first_name="Reshma",last_name="Dhandapani")
8
```

Output:



```
C:\Users\resh1\Desktop\New folder\study\python>python variableNoOfArguments.py
args: ('Hello', 'My name is ', 'Reshma')
kwargs: {'first_name': 'Reshma', 'last_name': 'Dhandapani'}

C:\Users\resh1\Desktop\New folder\study\python>
```