**Roll No: 04**

**Name: Badhe Rohan Vikas**

**Assignment No: 13**

**Assignment Name : Write a python program for use of Insertion sort algorithm to sort the given list.**

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def insertion\_sort(list1):

    for i in range(1, len(list1)):

        a = list1[i]

        j = i - 1

        while j >= 0 and a < list1[j]:

            list1[j + 1] = list1[j]

            j = j - 1

        list1[j + 1] = a

    return list1

list1 = [7, 2, 1, 6,10, 50, 20]

print("The unsorted list is:", list1)

print("The sorted new list is:", insertion\_sort(list1))

**Output :**

The unsorted list is: [7, 2, 1, 6, 10, 50, 20]

The sorted new list is: [1, 2, 6, 7, 10, 20, 50]