"""

Write a python program to store first year percentage of students in array.

Write function for sorting array of floating point numbers in ascending order using

a) Bubble Sort

b) Selection sort and display top five scores.

"""

```
#Bubble sort and display top five scores
def bubbleSort(arr):
    n = len(arr)

    # Traverse through all array elements
    for i in range(n - 1):

        for j in range(0, n - i - 1):

            # traverse the array from 0 to n-i-1
            # Swap if the element found is greater
            # than the next element
            if arr[j] > arr[j + 1]:
                arr[j], arr[j + 1] = arr[j + 1], arr[j]



arr = []
print("**********************************************************bubble_Sort**********************************************
******************")
Num = int(input("Enter the number of students "))
```

```
for i in range(Num):
    per = float(input("Enter the percentage marks "))
    arr.append(per)


bubbleSort(arr)


print("Sorted array is:")
for i in range(len(arr)):
    print("%f" % arr[i]),




#Selection Sort
def selectionSort(arr1):
    for i in range(len(arr1)):
        min_idx = i
        for j in range(i + 1, len(arr1)):
            if arr1[min_idx] > arr1[j]:
                min_idx = j


        # Swap the found minimum element with
        # the first element
        arr1[i], arr1[min_idx] = arr1[min_idx], arr1[i]



arr1 = []
```

```
print("*****************************************************************selection_sort*****************************************
******************")

Num = int(input("Enter the number of students "))

for i in range(Num):

    per = float(input("Enter the percentage marks "))

    arr1.append(per)


selectionSort(arr1)

# Driver code to test above

print("Sorted array")

for i in range(len(arr1)):

    print("%f" % arr1[i])


"""Output:


*****************************************************************bubble_Sort*****************************************************
***********

Enter the number of students 5

Enter the percentage marks 80.5

Enter the percentage marks 55.6

Enter the percentage marks 77.9

Enter the percentage marks 87.0

Enter the percentage marks 56.0

Sorted array is:

55.600000

56.000000

77.900000
```

80.500000

87.000000

**********selection_sort**********

Enter the number of students 5

Enter the percentage marks 90.5

Enter the percentage marks 65.7

Enter the percentage marks 80.2

Enter the percentage marks 75.3

Enter the percentage marks 77.7

Sorted array

65.700000

75.300000

77.700000

80.200000

90.500000

"""