

Assignment no:5

Roll no:07

```
a=[]
```

```
x=5
```

```
n = int(input("Enter number of students whose marks are to be displayed : "))
```

```
for i in range(0, n):
```

```
    m = int(input())
```

```
    a.append(m)
```

```
def selection_sort():
```

```
    for i in range(0,n):
```

```
        min=i
```

```
        for j in range(i+1,n):
```

```
            if (a[j]<a[min]):
```

```
                min=j
```

```
                a[i],a[min]=a[min],a[i]
```

```
    print("Marks of students after performing Selection Sort on the list : ")
```

```
    for i in range(len(a)):
```

```
        print(a[i])
```

```
def bubble_sort():
```

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

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

```
            if (a[j]>a[j+1]):
```

```
                a[j],a[j+1]=a[j+1],a[j]
```

```

    print("Marks of students after performing Bubble Sort on the list :")
    for i in range(len(a)):
        print(a[i])
def topfive():
    l=[]
    for i in range(0,x):
        max1=0
        for j in range(len(a)):
            if a[j]>max1:
                max1=a[j]
        a.remove(max1)
        l.append(max1)
    print("top five marks are:",l)
print("The marks of students are : ")
print(a)
selection_sort()
bubble_sort()
topfive()
print("enter choice:\n1.selectionsort\n2.bubblesort:")
ch=int(input())
if ch==1:
    selection_sort():
elif ch==2:
    bubble_sort()
elif ch==3:

```

topfive()

else:

print("Invalid choice")

OUTPUT:

```
Enter No of Student: 7
Enter marks for student: 96.89
Enter marks for student: 91.64
Enter marks for student: 78.50
Enter marks for student: 71.62
Enter marks for student: 55.32
Enter marks for student: 45.87
Enter marks for student: 87.04
Selection sort
45.87
55.32
71.62
78.5
87.04
91.64
96.89
Bubble sort
45.87
55.32
71.62
78.5
87.04
91.64
96.89
Top five scores are [96.89, 91.64, 87.04, 78.5, 71.62]

...Program finished with exit code 0
Press ENTER to exit console.□
```