

```
1 def Selection_Sort(marks):
2     for i in range(len(marks)):
3         min_idx = i
4         for j in range(i+1,len(marks)):
5             if marks[min_idx] > marks[j]:
6                 min_idx = j
7
8         marks[i], marks[min_idx] = marks[min_idx],marks[i]
9
10    print("Marks of student after performing selection sort on the list:")
11    for i in range(len(marks)):
12        print (marks[i])
13
14 def Bubble_Sort(marks):
15     n = len(marks)
16     for i in range(n-1):
17         for j in range (0,n-i-1):
18             if marks[j] > marks[i]:
19                 marks[i],marks[j-1],marks[j]
20
21     for i in range(len(marks)):
22         print(marks[i])
23
24 def top_five_marks(marks):
25     print("Top",len(marks),"Marks are : ")
26     print(*marks[::-1],sep="\n")
27
28 marks =[]
29 n = int(input("Enter number of students whose marks are to be displayed : "))
30 print("Enter marks for",n,"student(press ENTER after every students marks):")
31 for i in range(0,n):
32     ele=int(input())
33     marks.append(ele)
34
35 print("the marks of", "\n", "student are :")
36 print(marks)
37
38 flag=1
39 while flag ==1:
40     print("\n-----MENU-----")
41     print("1. Selection sort of marks")
42     print("2. Bubble sort of marks")
43     print("3. Exist")
44     ch=int(input("\nEnter your choice(from 1 to 3):"))
45
46     if ch==1:
47         Selection_Sort(marks)
48         a=input("\ndo you want displ top marks from list (yes/no) :")
49         if a == "yes":
50             top_five_marks(marks)
51         else:
52             print("\nThanks for using this program!")
53             flag=0
54
55     elif ch==2:
56         Bubble_Sort(marks)
57         a=input("\ndo you want displ top marks from list (yes/no) :")
58         if a == "yes":
59             top_five_marks(marks)
60         else:
61             print("\nThanks for using this program!")
62             flag=0
63
64     elif ch==3:
65         print("\nThanks for using this program!!")
66         flag=0
67
68     else:
69         print("\nEnter a valid choice!!")
70         flag=0
```

```
onkar@ubuntu: ~/Documents/FDS
onkar@ubuntu:~/Documents/FDS$ python3 test14.py
Enter number of students whose marks are to be displayed : 5
Enter marks for 5 student(press ENTER after every students marks):
98
56
84
58
73
the marks of
student are :
[98, 56, 84, 58, 73]

-----MENU-----
1. Selection sort of marks
2. Bubble sort of marks
3. Exist

Enter your choice(from 1 to 3):1
Marks of student after performing selection sort on the list:
56
58
73
84
98

do you want displ top marks from list (yes/no) :yes
Top 5 Marks are :
98
84
73
58
56

-----MENU-----
1. Selection sort of marks
2. Bubble sort of marks
3. Exist

Enter your choice(from 1 to 3):2
56
58
73
84
98

do you want displ top marks from list (yes/no) :yes
Top 5 Marks are :
98
84
73
58
56

-----MENU-----
1. Selection sort of marks
2. Bubble sort of marks
3. Exist

Enter your choice(from 1 to 3):3

Thanks for using this program!!
onkar@ubuntu:~/Documents/FDS$
```