**INPUT :**

def accept\_array(A):

n = int(input("Enter the total no. of student : "))

for i in range(n):

x = float(input("Enter the first year percentage of student %d : " % (i + 1)))

A.append(x)

print("Array accepted successfully\n\n")

def display\_array(A):

n = len(A)

if n == 0:

print("\nNo records in the database")

else:

print("Array of FE Marks : ", end=' ')

for i in range(n):

print("%.2f " % A[i], end=' ')

print("\n")

def Selection\_sort(A):

n = len(A)

for pos in range(n - 1):

min\_ind = pos

for i in range(pos + 1, n):

if A[i] < A[min\_ind]:

min\_ind = i

temp = A[pos]

A[pos] = A[min\_ind]

A[min\_ind] = temp

def Bubble\_sort(A):

n = len(A)

for Pass in range(1, n):

for i in range(n - Pass):

if A[i] < A[i + 1]:

temp = A[i]

A[i] = A[i + 1]

A[i + 1] = temp

def Main():

A = []

while True:

print("\t1 : Accept & Display the FE Marks")

print("\t2 : Selection Sort Ascending order")

print("\t3 : Bubble sort Descending order and display top five scores")

print("\t4 : Exit")

ch = int(input("Enter your choice : "))

if ch == 4:

print("End of Program")

quit()

elif ch == 1:

accept\_array(A)

display\_array(A)

elif ch == 2:

print("Marks before sorting")

display\_array(A)

Selection\_sort(A)

print("Marks after sorting")

display\_array(A)

elif ch == 3:

print("Marks before sorting")

display\_array(A)

Bubble\_sort(A)

print("Marks after sorting")

display\_array(A)

if len(A) >= 5:

print("Top Five Scores : ")

for i in range(5):

print("\t%.2f" % A[i])

--------------------------------------------------------------------------------------------------------------------------------------OUTPUT :

Enter your choice : 1

Enter the total no. of student : 5

Enter the first year percentage of student 1 : 85.5

Enter the first year percentage of student 2 : 90.2

Enter the first year percentage of student 3 : 76.8

Enter the first year percentage of student 4 : 88.4

Enter the first year percentage of student 5 : 91.1

Array accepted successfully

Array of FE Marks : 85.50 90.20 76.80 88.40 91.10

Enter your choice : 2

Marks before sorting

Array of FE Marks : 85.50 90.20 76.80 88.40 91.10

Marks after sorting

Array of FE Marks : 76.80 85.50 88.40 90.20 91.10

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Bubble Sort :

Enter your choice : 3

Marks before sorting

Array of FE Marks : 76.80 85.50 88.40 90.20 91.10

Marks after sorting

Array of FE Marks : 91.10 90.20 88.40 85.50 76.80

Top Five Scores :

91.10

90.20

88.40

85.50

76.80