Practical no 06

**Problem Statement:** 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) Selection Sort

b) Bubble sort and display top five scores

**program:-**

def selection\_short(L):

n=len(L)

for i in range(n):

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

if(L[j]<L[i]):

L[i],L[j]=L[j],L[i]

print(L,"\n")

print("---------------")

#return L

def bubble\_short(L):

n=len(L)

for i in range(n):

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

if(L[j]>L[j+1]):

L[j+1],L[j]=L[j],L[j+1]

print(L,"\n")

print("---------------")

#return L

def inserction\_short(L):

n=len(L)

for i in range(1,n):

j=i

while(L[j-1]>L[j])and(j>0):

L[j-1],L[j]=L[j],L[j-1]

j-=1

print(L,"\n")

print("---------------")

l=[]

n=int(input("Enter the no of elements : "))

for i in range(n):

x=int(input("enter value : "))

l.append(x)

print("your list is : ",l)

while True:

print()

print("1:SELECTION SHORT ")

print("2:BUBBLE SHORT ")

print("3:INSERTION SHORT ")

print("4:EXIT ")

ch=int(input("ENter Your Choice : "))

if ch==1:

print("\nSELECTION SHORT \n")

selection\_short(l)

elif ch==2:

print("\nBUBBLE SHORT \n")

bubble\_short(l)

elif ch==3:

print("\nINSERCTION SHORT ")

inserction\_short(l)

elif ch==4:

False

else:

print("invalid choice ")

**Output:**

Enter the no of elements : 6

enter value : 22

enter value : 66

enter value : 11

enter value : 88

enter value : 29

enter value : 77

your list is : [22, 66, 11, 88, 29, 77]

1:SELECTION SHORT

2:BUBBLE SHORT

3:INSERTION SHORT

4:EXIT

ENter Your Choice : 1

SELECTION SHORT

[11, 22, 29, 66, 77, 88]

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1:SELECTION SHORT

2:BUBBLE SHORT

3:INSERTION SHORT

4:EXIT

ENter Your Choice : 2

BUBBLE SHORT

[11, 22, 29, 66, 77, 88]

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1:SELECTION SHORT

2:BUBBLE SHORT

3:INSERTION SHORT

4:EXIT

ENter Your Choice : 3

INSERCTION SHORT

[11, 22, 29, 66, 77, 88]