# Program:

//Insertion Sort

#include<iostream>

using namespace std;

void insertSort(int a[],int c);

int main()

{

int x,i,n;

int arr[50];

cout<<"\tUR12CS135 - Insertion Sort\n\n";

cout<<"Enter The Number Of Elements: ";

cin>>n;

cout<<"\nEnter the elements:\n";

for(i=0;i<n;i++) //Getting The Values

cin>>arr[i];

insertSort(arr,n); //Passing elements to a function for sorting

cout<<"\nSorted Elements:\n";

for(i=0;i<n;i++) //displaying the sorted elements

cout<<" "<<arr[i];

cout<<"\n";

return 0;

}

void insertSort(int a[],int c)

{

int i,j,temp;

for(i=1;i<c;i++) //from the first to the last

{

temp=a[i];

j=i-1;

while(temp<a[j]&&j>=0) //shifting if true

{

a[j+1]=a[j];

j--;

}

a[j+1]=temp;

}

}

# Output:

