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/* Bubble Sort Algorithm */
/* Time Complexity
    Best Case-  $O(n)$ 
    Worst Case-  $O(n^2)$ 
    Average Case-  $O(n^2)$ 
*/

#include<stdlib.h>
#include<iostream>
using namespace std;

void bubblesort(int * , int );

int main()
{
    int n,a[100];
    cout<<"Enter number of elements: "<<endl;
    cin>>n;
    cout<<"Enter list elements: "<<endl;
    for(int i=0;i<n;i++)
    {
        cin>>a[i];
    }

    bubblesort(a,n);
    return 0;

}

void bubblesort(int a[], int n)
{
    int i,j,temp;
    for(i=0;i<n-1;i++)
        for(j=0;j<n-i-1;j++)
        {
            if(a[j]>a[j+1])
            {
                temp=a[j];
                a[j]=a[j+1];
                a[j+1]=temp;
            }
        }
    cout<<"The sorted elements are: "<<endl;
    for(int i=0;i<n;i++)
    {
        cout<<a[i]<<" ";
    }
}

```

