

```

1: /*-----Bubble Sort without loop-----*/
2:
3: #include<iostream>
4: using namespace std;
5:
6: void inputArray(int arr[], int n, int i)
7: {
8:     if(i < n)
9:     {
10:         cin >> arr[i];
11:         inputArray(arr, n, i + 1);
12:     }
13: }
14:
15: void printArray(int arr[], int n, int i)
16: {
17:     if(i < n)
18:     {
19:         cout << arr[i] << " ";
20:         printArray(arr, n, i + 1);
21:     }
22: }
23:
24:
25: void swap(int arr[], int i, int j)
26: {
27:     int temp = arr[i];
28:     arr[i] = arr[j];
29:     arr[j] = temp;
30: }
31:
32: void bubbleCompare(int arr[], int n, int i, int j)
33: {
34:     if(j < n - i - 1)
35:     {
36:         if(arr[j] > arr[j + 1])
37:         {
38:             swap(arr, j, j + 1);
39:         }
40:         bubbleCompare(arr, n, i, j + 1);
41:     }
42: }
43: void bubbleSort(int arr[], int n, int i)
44: {
45:     if(i < n - 1)
46:     {

```

```
47:         bubbleCompare(arr, n, i, 0);
48:         bubbleSort(arr, n, i + 1);
49:     }
50: }
51:
52: int main()
53: {
54:     int n;
55:     cout << "Enter the length: \n";
56:     cin >> n;
57:
58:     int arr[n];
59:     cout << "Enter the elements: \n";
60:     inputArray(arr, n, 0);
61:
62:     bubbleSort(arr, n, 0);
63:
64:     cout << "Sorted array is: \n";
65:     printArray(arr, n, 0);
66:
67:     return 0;
68: }
```