

```

1  program sortingArray;
2  uses crt;
3  const n = 5;
4  type myArray= array[0..n-1]of integer;
5  //function to swap adjacent elements
6  //-----
7  procedure swapByRef(var a:integer; var b:integer);
8  var c:integer;
9  begin
10     c:= a;
11     a:=b;
12     b:=c;
13     end;
14     //end of swap function
15     //-----
16     //function to bubble sort array
17     //-----
18     procedure bubblesort(var li: myArray; si:integer);
19     var i,j:integer;
20     begin
21     for j:=0 to si-1 do
22     begin
23     for i:=0 to si-2 do
24     begin
25     if (li[i+1] < li[i] ) then
26     begin
27     swapByRef(li[i+1], li[i]);
28     end;
29     end;
30     end;
31     end;
32
33     //end bubble sort -----
34     //-----
35     procedure DisplayArray(var li: myArray; si:integer);
36     var i:integer;
37     begin
38     writeln('-----');
39     write('[ ');
40     for i:=0 to si-2 do
41     begin
42     write(li[i], ', ');
43     end;
44     writeln(li[si-1], ']');
45     end;
46     //-----end display function -----
47     //----declaration of global variables-----
48     var M: myArray;
49     var j:integer;
50     //-----start of main function -----
51     begin
52     clrscr;
53     // collect array values from user
54     for j:=0 to n-1 do
55     begin
56     writeln('enter mark ', j);
57     read(M[j]);
58     end;
59     // end of collection
60
61     writeln('Displaying original array before sorting');
62     DisplayArray(M, n);
63     //sorting the array to order
64     bubblesort(M, n);
65     // end of sorting
66     writeln('Displaying final array after sorting');
67     DisplayArray(M, n);
68     readkey;
69     end.
70
71
72
73

```

