

BubbleSort.java

```
1 /*
2  * Written by JJ Shepherd
3  */
4 import java.util.Scanner;
5 public class BubbleSort {
6
7     public static void main(String[] args) {
8         Scanner keyboard = new Scanner(System.in);
9         System.out.println("Welcome to the Bubble Sort Program!\nEnter the size of the
10        Array.");
11         int size = keyboard.nextInt();
12         if(size <= 0)
13         {
14             System.out.println("That is an invalid size.");
15             System.exit(0);
16         }
17         int[] a = new int[size];
18         for(int i=0;i<a.length;i++)
19         {
20             System.out.println("Enter value at index "+i);
21             a[i] = keyboard.nextInt();
22         }
23         //Bubble Sort
24         boolean hasSwapped = true;
25         while(hasSwapped)
26         {
27             hasSwapped = false;
28             for(int i=0;i<a.length-1;i++)
29             {
30                 if(a[i] > a[i+1])
31                 {
32                     //Swap
33                     int temp = a[i];
34                     a[i] = a[i+1];
35                     a[i+1] = temp;
36                     hasSwapped = true;
37                 }
38             }
39             //Print values
40             System.out.println("The sorted array is");
41             for(int i=0;i<a.length;i++)
42             {
43                 System.out.println(a[i]);
44             }
45         }
46     }
47 }
48
```