

SelectionSort.java

```
1 /*
2  * Written by JJ Shepherd
3  */
4 import java.util.Scanner;
5 public class SelectionSort {
6
7     public static void main(String[] args) {
8         Scanner keyboard = new Scanner(System.in);
9         System.out.println("Welcome to the Selection 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         //Selection Sort
24         for(int i=0;i<a.length;i++)
25         {
26             int smallestIndex = i;
27             for(int j = i+1;j<a.length;j++)
28             {
29                 if(a[j] < a[smallestIndex])
30                 {
31                     smallestIndex = j;
32                 }
33             }
34             if(smallestIndex != i)
35             {
36                 //Swap
37                 int temp = a[i];
38                 a[i] = a[smallestIndex];
39                 a[smallestIndex] = temp;
40             }
41         }
42         //Print values
43         System.out.println("The sorted array is");
44         for(int i=0;i<a.length;i++)
45         {
46             System.out.println(a[i]);
47         }
48     }
49 }
50
```