

Our Solution(s)

Run Code

Your Solutions

Run Code

Solution 1

```
1 // Copyright © 2020 AlgoExpert, LLC. All rights reserved.
2
3 public class Program {
4     // Best: O(n^2) time | O(1) space
5     // Average: O(n^2) time | O(1) space
6     // Worst: O(n^2) time | O(1) space
7     public static int[] SelectionSort(int[] array) {
8         if (array.Length == 0) {
9             return new int[] {};
10        }
11        int startIdx = 0;
12        while (startIdx < array.Length - 1) {
13            int smallestIdx = startIdx;
14            for (int i = startIdx + 1; i < array.Length; i++) {
15                if (array[smallestIdx] > array[i]) {
16                    smallestIdx = i;
17                }
18            }
19            swap(startIdx, smallestIdx, array);
20            startIdx++;
21        }
22        return array;
23    }
24
25    public static void swap(int i, int j, int[] array) {
26        int temp = array[j];
27        array[j] = array[i];
28        array[i] = temp;
29    }
30 }
31
```

Solution 1Solution 2Solution 3

```
1 public class Program {
2     public static int[] SelectionSort(int[] array) {
3         // Write your code here.
4         return null;
5     }
6 }
7
```

Our Tests

Custom Output

Submit Code

```
1 public class Program {
2     // Best: O(n^2) time | O(1) space
3     // Average: O(n^2) time | O(1) space
4     // Worst: O(n^2) time | O(1) space
5     public static int[] SelectionSort(int[] array) {
6         if (array.Length == 0) {
7             return new int[] {};
8         }
9         int startIdx = 0;
10        while (startIdx < array.Length - 1) {
11            int smallestIdx = startIdx;
12            for (int i = startIdx + 1; i < array.Length; i++) {
13                if (array[smallestIdx] > array[i]) {
14                    smallestIdx = i;
15                }
16            }
17            swap(startIdx, smallestIdx, array);
18            startIdx++;
19        }
20        return array;
21    }
22
23    public static void swap(int i, int j, int[] array) {
24        int temp = array[j];
25        array[j] = array[i];
26        array[i] = temp;
27    }
28 }
```

```
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100
```

```
17 (Test0)
18 #00000000 Test0Test0() {
19     #00000000 expected = 0x, 0x;
20     #00000000 input = 0x, 0x;
21     #00000000 #00000000 #00000000 #00000000 #00000000 #00000000
22 }
23
24 (Test0)
25 #00000000 Test0Test0() {
26     #00000000 expected = 0x, 0x;
27     #00000000 input = 0x, 0x;
28     #00000000 #00000000 #00000000 #00000000 #00000000 #00000000
29 }
30
```

Run or submit code when you're ready.