

Solution 1

```
1 // Copyright © 2020 AlgoExpert, LLC. All rights reserved.
2
3 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 1 Solution 2 Solution 3

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

Run or submit code when you're ready.

Our Tests

```
1 class Program {
2     static void Main()
3     {
4         Console.WriteLine("Enter a number:");
5         int input = int.Parse(Console.ReadLine());
6         Console.WriteLine($"The square of {input} is {input * input}");
7     }
8 }
9
10 static void Main()
11 {
12     Console.WriteLine("Enter a number:");
13     int input = int.Parse(Console.ReadLine());
14     Console.WriteLine($"The square of {input} is {input * input}");
15 }
```