

Solution 1

```
1 // Copyright © 2020 AlgoExpert, LLC. All rights reserved.
2
3 class Program {
4     // Best: O(n) 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[] insertionSort(int[] array) {
8         if (array.length == 0) {
9             return new int[] {};
10        }
11        for (int i = 1; i < array.length; i++) {
12            int j = i;
13            while (j > 0 && array[j] < array[j - 1]) {
14                swap(j, j - 1, array);
15                j -= 1;
16            }
17        }
18        return array;
19    }
20
21    public static void swap(int i, int j, int[] array) {
22        int temp = array[j];
23        array[j] = array[i];
24        array[i] = temp;
25    }
26 }
27
```

Solution 1 Solution 2 Solution 3

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

Run or submit code when you're ready.

Our Tests