

PromptScratchpadOur Solution(s)Video Explanation

Run Code

Solution 1

```
1 // Copyright © 2020 AlgoExpert, LLC. All rights reserved.
2
3 class Program {
4     // O(n) time | O(1) space
5     public static int[] subarraySort(int[] array) {
6         int minOutOfOrder = Integer.MAX_VALUE;
7         int maxOutOfOrder = Integer.MIN_VALUE;
8         for (int i = 0; i < array.length; i++) {
9             int num = array[i];
10            if (isOutOfOrder(i, num, array)) {
11                minOutOfOrder = Math.min(minOutOfOrder, num);
12                maxOutOfOrder = Math.max(maxOutOfOrder, num);
13            }
14        }
15        if (minOutOfOrder == Integer.MAX_VALUE) {
16            return new int[] {-1, -1};
17        }
18        int subarrayLeftIdx = 0;
19        while (minOutOfOrder >= array[subarrayLeftIdx]) {
20            subarrayLeftIdx++;
21        }
22        int subarrayRightIdx = array.length - 1;
23        while (maxOutOfOrder <= array[subarrayRightIdx]) {
24            subarrayRightIdx--;
25        }
26        return new int[] {subarrayLeftIdx, subarrayRightIdx};
27    }
28
29    public static boolean isOutOfOrder(int i, int num, int[] array) {
30        if (i == 0) {
31            return num > array[i + 1];
32        }
33        if (i == array.length - 1) {
34            return num < array[i - 1];
35        }
36        return num > array[i + 1] || num < array[i - 1];
37    }
38 }
39
```