AlgoExpert Quad Layout C++ 12px Sublime Monokai 00:00:00

Prompt Scratchpad Our Solution(s) Video Explanation Run Code

Solution 1

```
1\, // Copyright @ 2020 AlgoExpert, LLC. All rights reserved.
 3 #include <vector>
 4 #include <algorithm>
 5 #include <climits>
 6 using namespace std;
8 bool isOutOfOrder(int i, int num, vector<int> array);
10 // O(n) time | O(1) space
11 vector<int> subarraySort(vector<int> array) {
     int minOutOfOrder = INT_MAX;
     int maxOutOfOrder = INT_MIN;
13
      for (int i = 0; i < array.size(); i++) {</pre>
14
15
       int num = array[i];
       if (isOutOfOrder(i, num, array)) {
16
         minOutOfOrder = min(minOutOfOrder, num);
17
18
          maxOutOfOrder = max(maxOutOfOrder, num);
19
20
21
      if (minOutOfOrder == INT_MAX) {
22
       return vector<int>{-1, -1};
23
     int subarrayLeftIdx = 0;
24
25
      while (minOutOfOrder >= array[subarrayLeftIdx]) {
26
       subarrayLeftIdx++;
27
28
      int subarrayRightIdx = array.size() - 1;
29
      while (maxOutOfOrder <= array[subarrayRightIdx]) {</pre>
30
       subarrayRightIdx--;
31
      return vector<int>{subarrayLeftIdx, subarrayRightIdx};
32
33 }
   bool isOutOfOrder(int i, int num, vector<int> array) {
35
36
     if (i == 0) {
37
       return num > array[i + 1];
38
39
      if (i == array.size() - 1) {
40
       return num < array[i - 1];</pre>
41
42
     return num > array[i + 1] || num < array[i - 1];</pre>
43 }
44
```