AlgoExpert Quad Layout Go 12px Sublime Monokai 00:00:00

Prompt Scratchpad Our Solution(s) Video Explanation Run Code

Solution 1

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```
1\, // Copyright @ 2020 AlgoExpert, LLC. All rights reserved.
 3 package main
 5 // Best: O(n) time | O(1) space
 6 // Average: O(n) time | O(1) space
 7 // Worst: O(n^2) time | O(1) space
 9
    return helper(array, 0, len(array)-1, k-1)
10 }
11
12 func helper(array []int, start, end int, position int) int {
13
     for {
14
       if start > end {
         panic("This should never happen!")
15
16
       pivot, left, right := start, start+1, end
17
18
       for left <= right {</pre>
         if array[left] > array[right] && array[right] < array[pivot] {</pre>
19
20
           swap(left, right, array)
21
         if array[left] <= array[pivot] {</pre>
22
23
24
25
         if array[right] >= array[pivot] {
26
           right -= 1
27
28
29
       swap(pivot, right, array)
       if right == position {
30
         return array[right]
31
       } else if right < position {</pre>
32
         start = right + 1
33
34
       } else {
35
         end = right - 1
36
37
38 }
39
40 func swap(one, two int, array []int) {
41
    array[one], array[two] = array[two], array[one]
42 }
```