

Our Solution(s)

Run Code

Your Solutions

Run Code

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) time | O(1) space
6     // Worst: O(n^2) time | O(1) space
7     func quickSelect(_ array: [Int], _ k: Int) -> Int? {
8         let position = k - 1
9         var startIndex = 0
10        var endIndex = array.count - 1
11        var variableArray = array
12
13        return quickSelectHelper(&variableArray, &startIndex, &endIndex)
14    }
15
16    func quickSelectHelper(_ array: inout [Int], _ startIndex: inout Int, _ endIndex: inout Int) -> Int? {
17        while true {
18            let pivotIndex = startIndex
19            var leftPointer = startIndex + 1
20            var rightPointer = endIndex
21
22            while leftPointer <= rightPointer {
23                if array[leftPointer] > array[pivotIndex], array[rightPointer] < array[pivotIndex] {
24                    swap(&array, leftPointer, rightPointer)
25                }
26
27                if array[leftPointer] <= array[pivotIndex] {
28                    leftPointer += 1
29                }
30
31                if array[rightPointer] >= array[pivotIndex] {
32                    rightPointer -= 1
33                }
34            }
35
36            if leftPointer < rightPointer {
37                swap(&array, pivotIndex, rightPointer)
38            }
39
40            return array[rightPointer]
41        }
42    }
43 }
```

Solution 1

Solution 2

Solution 3

```
1 class Program {
2     func quickSelect(_ array: [Int], _ k: Int) -> Int? {
3         // Write your code here.
4         return -1
5     }
6 }
7
```

Our Tests

Custom Output

Submit Code

```
1 class Program {
2     func quickSelect(_ array: [Int], _ k: Int) -> Int? {
3         // Write your code here.
4         return -1
5     }
6 }
```

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