Our Solution(s) Run Code

Solution 1

```python
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# Best: O(n) time | O(1) space
# Average: O(n) time | O(1) space
# Worst: O(n^2) time | O(1) space
def quickselect(array, k):
    position = k - 1
    return quickselectHelper(array, 0, len(array) - 1, position)


def quickselectHelper(array, startIdx, endIdx, position):
    while True:
        if startIdx > endIdx:
            raise Exception("Your algorithm should never arrive here!
        pivotIdx = startIdx
        leftIdx = startIdx + 1
        rightIdx = endIdx
        while leftIdx <= rightIdx:
            if array[leftIdx] > array[pivotIdx] and array[rightIdx] <
                swap(leftIdx, rightIdx, array)
            if array[leftIdx] <= array[pivotIdx]:
                leftIdx += 1
            if array[rightIdx] >= array[pivotIdx]:
                rightIdx -= 1
        swap(pivotIdx, rightIdx, array)
        if rightIdx == position:
            return array[rightIdx]
        elif rightIdx < position:
            startIdx = rightIdx + 1
        else:
            endIdx = rightIdx - 1


```

Your Solutions Run Code

Solution 1 Solution 2 Solution 3

```python
def quickselect(array, k):
    # Write your code here.
    pass

```

Our Tests

Custom Output Submit Code

Run or submit code when you're ready.