

PromptScratchpadOur Solution(s)Video Explanation

Run Code

Solution 1Solution 2

```
1 // Copyright © 2020 AlgoExpert, LLC. All rights reserved.
2
3 public class Program {
4     // O(log(n)) time | O(log(n)) space
5     public static int[] SearchForRange(int[] array, int target) {
6         int[] finalRange = {-1, -1};
7         alteredBinarySearch(array, target, 0, array.Length - 1, finalRange, true);
8         alteredBinarySearch(array, target, 0, array.Length - 1, finalRange, false);
9         return finalRange;
10    }
11
12    public static void alteredBinarySearch(int[] array, int target, int left, int right,
13        int[] finalRange, bool goLeft) {
14        if (left > right) {
15            return;
16        }
17        int mid = (left + right) / 2;
18        if (array[mid] < target) {
19            alteredBinarySearch(array, target, mid + 1, right, finalRange, goLeft);
20        } else if (array[mid] > target) {
21            alteredBinarySearch(array, target, left, mid - 1, finalRange, goLeft);
22        } else {
23            if (goLeft) {
24                if (mid == 0 || array[mid - 1] != target) {
25                    finalRange[0] = mid;
26                } else {
27                    alteredBinarySearch(array, target, left, mid - 1,
28                        finalRange, goLeft);
29                }
30            } else {
31                if (mid == array.Length - 1 || array[mid + 1] != target) {
32                    finalRange[1] = mid;
33                } else {
34                    alteredBinarySearch(array, target, mid + 1, right,
35                        finalRange, goLeft);
36                }
37            }
38        }
39    }
40 }
41
```