

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(1) 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        while (left <= right) {
15            int mid = (left + right) / 2;
16            if (array[mid] < target) {
17                left = mid + 1;
18            } else if (array[mid] > target) {
19                right = mid - 1;
20            } else {
21                if (goLeft) {
22                    if (mid == 0 || array[mid - 1] != target) {
23                        finalRange[0] = mid;
24                        return;
25                    } else {
26                        right = mid - 1;
27                    }
28                } else {
29                    if (mid == array.Length - 1 || array[mid + 1] != target) {
30                        finalRange[1] = mid;
31                        return;
32                    } else {
33                        left = mid + 1;
34                    }
35                }
36            }
37        }
38    }
39 }
40
```