

Binary Search - LeetCode

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Description

Solution

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## 704. Binary Search

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Given an array of integers `nums` which is sorted in ascending order, and an integer `target`, write a function to search `target` in `nums`. If `target` exists, then return its index. Otherwise, return `-1`.

You must write an algorithm with  $O(\log n)$  runtime complexity.

**Example 1:**

**Input:** `nums = [-1,0,3,5,9,12]`, `target = 9`

**Output:** `4`

**Explanation:** 9 exists in `nums` and its index is 4

**Example 2:**

**Input:** `nums = [-1,0,3,5,9,12]`, `target = 2`

**Output:** `-1`

**Explanation:** 2 does not exist in `nums` so return -1

**Constraints:**

- $1 \leq \text{nums.length} \leq 10^4$
- $-10^4 < \text{nums}[i], \text{target} < 10^4$
- All the integers in `nums` are unique

Java

Autocomplete

```
1 class Solution {
2     public int search(int[] nums, int target) {
3
4         int left=0,right=nums.length-1;
5         int mid;
6
7         while(left<=right){
8             mid=(left+right)/2;
9             if(nums[mid]==target)
10                return mid;
11             else if(nums[mid]<target)
12                 left=mid+1;
13             else
14                 right=mid-1;
15
16         }
17     }
18 }
```

Testcase

Run Code Result

Debugger

Accepted

Runtime: 0 ms

Your input

`[-1,0,3,5,9,12]`  
`9`

Output

`4`  
`-1`

Expected

`4`  
`-1`

Diff

Problems

Pick One

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Console

Use Example Testcases

Run Code

Submit