

LeetCode

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Single Element in a Sorted ...

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Single Element in a Sorted Array

Solution

You are given a sorted array consisting of only integers where every element appears exactly twice, except for one element which appears exactly once. Find this single element that appears only once.

Example 1:

Input: [1,1,2,3,3,4,4,8]
Output: 2

Example 2:

Input: [3,3,7,7,10,11,11]
Output: 10

Note: Your solution should run in $O(\log n)$ time and $O(1)$ space.

Java

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

Custom Testcase (Contribute)

Run Code

Submit