Problem 540: Single Element in a Sorted Array

Problem Information

Difficulty: Medium
Acceptance Rate: 59.19%
Paid Only: No
Tags: Array, Binary Search

Problem Description

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

Return _the single element that appears only once_.

Your solution must run in `O(log n)` time and `O(1)` space.

Example 1:

Input: nums = [1,1,2,3,3,4,4,8,8] **Output:** 2

Example 2:

Input: nums = [3,3,7,7,10,11,11] **Output:** 10

Constraints:

* `1 <= nums.length <= 105` * `0 <= nums[i] <= 105`

Code Snippets

C++:

```
class Solution {
public:
```

```
int singleNonDuplicate(vector<int>& nums) {

}
};
```

Java:

```
class Solution {
public int singleNonDuplicate(int[] nums) {

}
}
```

Python3:

```
class Solution:
def singleNonDuplicate(self, nums: List[int]) -> int:
```