Problem 3702: Longest Subsequence With Non-Zero Bitwise XOR

Problem Information

Difficulty: Medium
Acceptance Rate: 36.71%
Paid Only: No
Tags: Array, Bit Manipulation

Problem Description

You are given an integer array `nums`.

Return the length of the **longest subsequence** in `nums` whose bitwise **XOR** is **non-zero**. If no such **subsequence** exists, return 0.

Example 1:

Input: nums = [1,2,3]

Output: 2

Explanation:

One longest subsequence is `[2, 3]`. The bitwise XOR is computed as `2 XOR 3 = 1`, which is non-zero.

Example 2:

Input: nums = [2,3,4]

Output: 3

Explanation:

The longest subsequence is `[2, 3, 4]`. The bitwise XOR is computed as `2 XOR 3 XOR 4 = 5`, which is non-zero.

Constraints:

* `1 <= nums.length <= 105` * `0 <= nums[i] <= 109`

Code Snippets

C++:

```
class Solution {
public:
int longestSubsequence(vector<int>& nums) {

}
};
```

Java:

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

}
}
```

Python3:

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