Problem 3702: Longest Subsequence With Non-Zero Bitwise XOR

Problem Information

Difficulty: Medium
Acceptance Rate: 0.00%
Paid Only: No

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 <= 10

5

0 <= nums[i] <= 10

9

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:
```

Python:

```
class Solution(object):
def longestSubsequence(self, nums):
"""
:type nums: List[int]
:rtype: int
"""
```

JavaScript:

```
/**
* @param {number[]} nums
* @return {number}
*/
var longestSubsequence = function(nums) {

};
```

TypeScript:

```
function longestSubsequence(nums: number[]): number {

};
```

C#:

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

}
}
```

C:

```
int longestSubsequence(int* nums, int numsSize) {

}
```

Go:

```
func longestSubsequence(nums []int) int {

}
```

Kotlin:

```
class Solution {
fun longestSubsequence(nums: IntArray): Int {

}
}
```

Swift:

```
class Solution {
func longestSubsequence(_ nums: [Int]) -> Int {

}
}
```

Rust:

```
impl Solution {
pub fn longest_subsequence(nums: Vec<i32>) -> i32 {

}
}
```

Ruby:

```
# @param {Integer[]} nums
# @return {Integer}
def longest_subsequence(nums)

end
```

PHP:

```
class Solution {

/**
```

```
* @param Integer[] $nums
* @return Integer
*/
function longestSubsequence($nums) {

}
}
```

Dart:

```
class Solution {
int longestSubsequence(List<int> nums) {

}
}
```

Scala:

```
object Solution {
def longestSubsequence(nums: Array[Int]): Int = {

}
}
```

Elixir:

```
defmodule Solution do
@spec longest_subsequence(nums :: [integer]) :: integer
def longest_subsequence(nums) do

end
end
```

Erlang:

```
-spec longest_subsequence(Nums :: [integer()]) -> integer().
longest_subsequence(Nums) ->
.
```

Racket:

```
(define/contract (longest-subsequence nums)
(-> (listof exact-integer?) exact-integer?)
)
```

Solutions

C++ Solution:

```
/*
* Problem: Longest Subsequence With Non-Zero Bitwise XOR
* Difficulty: Medium
* Tags: array
*
* Approach: Use two pointers or sliding window technique
* Time Complexity: O(n) or O(n log n)
* Space Complexity: O(1) to O(n) depending on approach
*/

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

}
};
```

Java Solution:

```
/**
* Problem: Longest Subsequence With Non-Zero Bitwise XOR
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* Tags: array
*
* Approach: Use two pointers or sliding window technique
* Time Complexity: O(n) or O(n log n)
* Space Complexity: O(1) to O(n) depending on approach
*/

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

}
```

```
}
```

Python3 Solution:

```
"""
Problem: Longest Subsequence With Non-Zero Bitwise XOR
Difficulty: Medium
Tags: array

Approach: Use two pointers or sliding window technique
Time Complexity: O(n) or O(n log n)
Space Complexity: O(1) to O(n) depending on approach
"""

class Solution:
def longestSubsequence(self, nums: List[int]) -> int:
# TODO: Implement optimized solution
pass
```

Python Solution:

```
class Solution(object):
def longestSubsequence(self, nums):
"""
:type nums: List[int]
:rtype: int
"""
```

JavaScript Solution:

```
/**
* Problem: Longest Subsequence With Non-Zero Bitwise XOR
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/**
```

```
* @param {number[]} nums
* @return {number}
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var longestSubsequence = function(nums) {

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```

TypeScript Solution:

```
/**
* Problem: Longest Subsequence With Non-Zero Bitwise XOR
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* Tags: array
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*/

function longestSubsequence(nums: number[]): number {

};
```

C# Solution:

```
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* Tags: array
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* Approach: Use two pointers or sliding window technique
* Time Complexity: O(n) or O(n log n)
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*/

public class Solution {
public int LongestSubsequence(int[] nums) {

}
}
```

C Solution:

```
/*
* Problem: Longest Subsequence With Non-Zero Bitwise XOR
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* Tags: array
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* Approach: Use two pointers or sliding window technique
* Time Complexity: O(n) or O(n log n)
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*/

int longestSubsequence(int* nums, int numsSize) {

}
```

Go Solution:

```
// Problem: Longest Subsequence With Non-Zero Bitwise XOR
// Difficulty: Medium
// Tags: array
//
// Approach: Use two pointers or sliding window technique
// Time Complexity: O(n) or O(n log n)
// Space Complexity: O(1) to O(n) depending on approach

func longestSubsequence(nums []int) int {

}
```

Kotlin Solution:

```
class Solution {
fun longestSubsequence(nums: IntArray): Int {

}
}
```

Swift Solution:

```
class Solution {
func longestSubsequence(_ nums: [Int]) -> Int {
```

```
}
}
```

Rust Solution:

```
// Problem: Longest Subsequence With Non-Zero Bitwise XOR
// Difficulty: Medium
// Tags: array
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// Approach: Use two pointers or sliding window technique
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impl Solution {
pub fn longest_subsequence(nums: Vec<i32>) -> i32 {

}
}
```

Ruby Solution:

```
# @param {Integer[]} nums
# @return {Integer}
def longest_subsequence(nums)

end
```

PHP Solution:

```
class Solution {

/**
* @param Integer[] $nums
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function longestSubsequence($nums) {

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Dart Solution:

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Scala Solution:

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