

896. Monotonic Array

Solved

Easy

Topics

Companies

An array is **monotonic** if it is either monotone increasing or monotone decreasing.

An array `nums` is monotone increasing if for all $i \leq j$, $nums[i] \leq nums[j]$. An array `nums` is monotone decreasing if for all $i \leq j$, $nums[i] \geq nums[j]$.

Given an integer array `nums`, return `true` if the given array is monotonic, or `false` otherwise.

Example 1:

Input: `nums = [1,2,2,3]`

Output: `true`

Example 2:

Input: `nums = [6,5,4,4]`

Output: `true`

Example 3:

Input: `nums = [1,3,2]`

Output: `false`

The screenshot shows a code editor with a C# solution for the Monotonic Array problem. The solution is accepted and shows runtime and memory usage statistics.

Code:

```
public class Solution {
    public bool IsMonotonic(int[] nums) {
        bool increasing = true;
        bool decreasing = true;

        for (int i = 1; i < nums.Length; i++) {
            if (nums[i] > nums[i - 1]) {
                decreasing = false;
            }
            if (nums[i] < nums[i - 1]) {
                increasing = false;
            }
        }

        return increasing || decreasing;
    }
}
```

Testcase: Case 1

Input: `nums = [1,2,2,3]`

Output: `true`

Runtime: 94 ms

Memory: 69.48 MB

Код:

```
public class Solution
{
    public bool IsMonotonic(int[] nums)
    {
        bool increasing = true;
        bool decreasing = true;
```

```
    for (int i = 1; i < nums.Length; i++)
    {
        if (nums[i] > nums[i - 1])
        {
            decreasing = false;
        }
        if (nums[i] < nums[i - 1])
        {
            increasing = false;
        }
    }

    return increasing || decreasing;
}
```