# **Zero Array Transformation I**

You are given an integer array nums of length n and a 2D array queries, where queries[i] =  $[l_i, r_i]$ .

For each queries[i]:

- Select a subset of indices within the range [l<sub>i</sub>, r<sub>i</sub>] in nums.
- Decrement the values at the selected indices by 1.

A Zero Array is an array where all elements are equal to 0.

Return true if it is *possible* to transform nums into a **Zero Array** after processing all the queries sequentially, otherwise return false.

#### Example 1:

**Input:** nums = [1,0,1], queries = [[0,2]]

Output: true

### **Explanation:**

- For i = 0:
  - Select the subset of indices as [0, 2] and decrement the values at these indices by 1.
  - The array will become [0, 0, 0], which is a Zero Array.

#### Example 2:

**Input:** nums = [4,3,2,1], queries = [[1,3],[0,2]]

Output: false Explanation:

## • For i = 0:

- Select the subset of indices as [1, 2, 3] and decrement the values at these indices by 1.
- The array will become [4, 2, 1, 0].
- For i = 1:
  - Select the subset of indices as [0, 1, 2] and decrement the values at these indices by 1.
  - The array will become [3, 1, 0, 0], which is not a Zero Array.

## **Constraints:**

- 1 <= nums.length <= 10<sup>5</sup>
- 0 <= nums[i] <= 10<sup>5</sup>
- 1 <= queries.length <=  $10^5$
- queries[i].length == 2
- $0 \le l_i \le r_i \le nums.length$