1526. Minimum Number of Increments on Subarrays to Form a Target Array

Solved

Hard Topics Hint

You are given an integer array `target`. You have an integer array `initial` of the same size as `target` with all elements initially zeros.

In one operation you can choose **any** subarray from `initial` and increment each value by one.

Return *the minimum number of operations to form a* `target` *array from* `initial`.

The test cases are generated so that the answer fits in a 32-bit integer.

Example 1:

> **Input:** target = [1,2,3,2,1]
> **Output:** 3
> **Explanation:** We need at least 3 operations to form the target array from the initial array.
> [**0**,**0**,**0**,**0**,**0**] increment 1 from index 0 to 4 (inclusive).
> [1,**1**,**1**,**1**,1] increment 1 from index 1 to 3 (inclusive).
> [1,2,**2**,2,1] increment 1 at index 2.
> [1,2,3,2,1] target array is formed.

Example 2:

> **Input:** target = [3,1,1,2]
> **Output:** 4
> **Explanation:** [**0**,**0**,**0**,**0**] -> [1,1,1,**1**] -> [**1**,1,1,2] -> [**2**,1,1,2] -> [3,1,1,2]

Example 3:

> **Input:** target = [3,1,5,4,2]
> **Output:** 7
> **Explanation:** [**0**,**0**,**0**,**0**,**0**] -> [**1**,1,1,1,1] -> [**2**,1,1,1,1] -> [3,1,**1**,**1**,**1**] -> [3,1,**2**,**2**,2] -> [3,1,**3**,**3**,2] -> [3,1,**4**,4,2] -> [3,1,5,4,2].

Constraints:

- $1 <= target.length <= 10^5$
- $1 <= target[i] <= 10^5$

Seen this question in a real interview before? 1/5

Yes No

Accepted 141,518/181.1K | Acceptance Rate 78.1%

Topics

Hint 1

Discussion (230)