370. Range Addition Premium

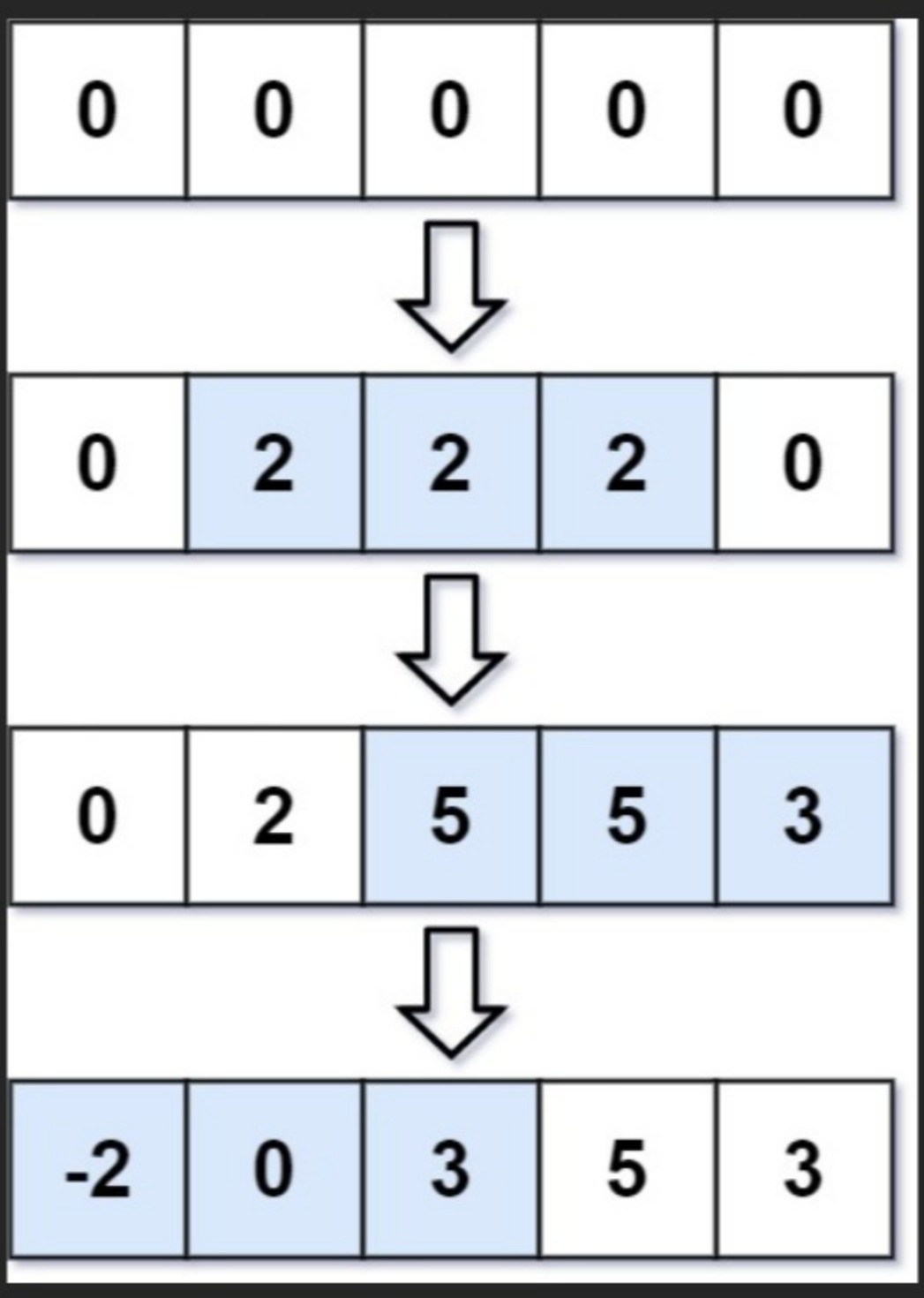
Medium | Topics | Companies | Hint

You are given an integer `length` and an array `updates` where `updates[i] = [startIdx_i, endIdx_i, inc_i]`.

You have an array `arr` of length `length` with all zeros, and you have some operation to apply on `arr`. In the `i^th` operation, you should increment all the elements `arr[startIdx_i], arr[startIdx_i + 1], ..., arr[endIdx_i]` by `inc_i`.

Return `arr` *after applying all the* `updates`.

Example 1:




```
Input: length = 5, updates = [[1,3,2],[2,4,3],[0,2,-2]]
Output: [-2,0,3,5,3]
```

Example 2:

```
Input: length = 10, updates = [[2,4,6],[5,6,8],[1,9,-4]]
Output: [0,-4,2,2,2,4,4,-4,-4,-4]
```

Constraints:

- `1 <= length <= 10^5`
- `0 <= updates.length <= 10^4`
- `0 <= startIdx_i <= endIdx_i < length`
- `-1000 <= inc_i <= 1000`

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

Yes No

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Topics

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Hint 1

Thinking of using advanced data structures? You are thinking it too complicated.

Hint 2

For each update operation, do you really need to update all elements between i and j?

Hint 3

Update only the first and end element is sufficient.

Hint 4

The optimal time complexity is O(***k*** + ***n***) and uses O(1) extra space.

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