303. Range Sum Query - Immutable   Solved

Easy   Topics   Companies

Given an integer array `nums`, handle multiple queries of the following type:

1. Calculate the **sum** of the elements of `nums` between indices `left` and `right` **inclusive** where `left <= right`.

Implement the `NumArray` class:

- `NumArray(int[] nums)` Initializes the object with the integer array `nums`.

- `int sumRange(int left, int right)` Returns the **sum** of the elements of `nums` between indices `left` and `right` **inclusive** (i.e. `nums[left] + nums[left + 1] + ... + nums[right]`).

Example 1:

Input
["NumArray", "sumRange", "sumRange", "sumRange"]
[[[-2, 0, 3, -5, 2, -1]], [0, 2], [2, 5], [0, 5]]
Output
[null, 1, -1, -3]

Explanation
NumArray numArray = new NumArray([-2, 0, 3, -5, 2, -1]);
numArray.sumRange(0, 2); // return (-2) + 0 + 3 = 1
numArray.sumRange(2, 5); // return 3 + (-5) + 2 + (-1) = -1
numArray.sumRange(0, 5); // return (-2) + 0 + 3 + (-5) + 2 + (-1) = -3

Constraints:

- $1 <= nums.length <= 10^4$

- $-10^5 <= nums[i] <= 10^5$

- $0 <= left <= right < nums.length$

- At most 10^4 calls will be made to `sumRange`.