Problem 303: Range Sum Query - Immutable

Problem Information

Difficulty: Easy
Acceptance Rate: 70.35%
Paid Only: No
Tags: Array, Design, Prefix Sum

Problem Description

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 <= 104` * `-105 <= nums[i] <= 105` * `0 <= left <= right < nums.length` * At most `104` calls will be made to `sumRange`.

Code Snippets

C++:

```cpp
class NumArray {
public:
NumArray(vector<int>& nums) {

}

int sumRange(int left, int right) {

}
};

/**
 * Your NumArray object will be instantiated and called as such:
 * NumArray* obj = new NumArray(nums);
 * int param_1 = obj->sumRange(left,right);
 */
```

Java:

```java
class NumArray {

public NumArray(int[] nums) {

}

public int sumRange(int left, int right) {

}
}

/**
 * Your NumArray object will be instantiated and called as such:
 * NumArray obj = new NumArray(nums);
 * int param_1 = obj.sumRange(left,right);
 */
```

Python3:

```python
class NumArray:

    def __init__(self, nums: List[int]):


    def sumRange(self, left: int, right: int) -> int:



# Your NumArray object will be instantiated and called as such:
# obj = NumArray(nums)
# param_1 = obj.sumRange(left,right)
```