

Problem 259: 3Sum Smaller

Problem Information

Difficulty: Medium

Acceptance Rate: 51.24%

Paid Only: Yes

Tags: Array, Two Pointers, Binary Search, Sorting

Problem Description

Given an array of n integers `nums` and an integer `target`, find the number of index triplets i, j, k with $0 \leq i < j < k < n$ that satisfy the condition $nums[i] + nums[j] + nums[k] < target$.

Example 1.

Input: `nums = [-2,0,1,3], target = 2` **Output:** `2` **Explanation:** Because there are two triplets which sums are less than 2: `[-2,0,1]` `[-2,0,3]`

Example 2.

Input: `nums = [], target = 0` **Output:** `0`

Example 3.

Input: `nums = [0], target = 0` **Output:** `0`

Constraints:

$n == \text{nums.length}$ $0 \leq n \leq 3500$ $-100 \leq \text{nums}[i] \leq 100$ $-100 \leq \text{target} \leq 100$

Code Snippets

C++:

```
class Solution {
public:
    int threeSumSmaller(vector<int>& nums, int target) {

    }
};
```

Java:

```
class Solution {
    public int threeSumSmaller(int[] nums, int target) {

    }
}
```

Python3:

```
class Solution:
    def threeSumSmaller(self, nums: List[int], target: int) -> int:
```