

259. 3Sum Smaller ★

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Total Accepted: **16096** Total Submissions: **40303** Difficulty: **Medium** Contributors: **Admin**

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

For example, given $nums = [-2, 0, 1, 3]$, and $target = 2$.

Return 2. Because there are two triplets which sums are less than 2:

```
[-2, 0, 1]
[-2, 0, 3]
```

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C++



```
1 class Solution {
2 public:
3     int threeSumSmaller(vector<int>& nums, int target) {
4         if(nums.empty()) return 0;
5         int N = nums.size();
6         sort(nums.begin(), nums.end());
7         int count = 0;
8         for(int i = 0; i < N-2; ++i) {
9             int ntarget = target - nums[i];
10            int j = i+1, k = N-1;
11            while(j < k) {
12                if(nums[j]+nums[k] >= ntarget) {
13                    k--;
14                } else {
15                    count += k-j;
16                    j++;
17                }
18            }
19        }
20        return count;
21    }
22 };
```

Custom Testcase ☐

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