

18. 4Sum

Medium Topics Companies

Given an array `nums` of n integers, return an array of all the **unique** quadruplets `[nums[a], nums[b], nums[c], nums[d]]` such that:

- $0 \leq a, b, c, d < n$
- `a, b, c,` and `d` are **distinct**.
- `nums[a] + nums[b] + nums[c] + nums[d] == target`

You may return the answer in **any order**.

Example 1:

Input: `nums = [1,0,-1,0,-2,2], target = 0`
Output: `[[-2,-1,1,2], [-2,0,0,2], [-1,0,0,1]]`

Example 2:

Input: `nums = [2,2,2,2,2], target = 8`
Output: `[[2,2,2,2]]`

Constraints:

11.9K 269 129 Online

Code

Java Auto

```
1 class Solution {
2     public List<List<Integer>> fourSum(int[] nums, int target) {
3         Arrays.sort(nums);
4         List<List<Integer>> result = new ArrayList<>();
5         int n = nums.length;
6         for (int i = 0; i < n - 3; i++) {
7             if (i > 0 && nums[i] == nums[i - 1]) continue;
8             for (int j = i + 1; j < n - 2; j++) {
9                 if (j > i + 1 && nums[j] == nums[j - 1]) continue;
10                int left = j + 1;
11                int right = n - 1;
12                while (left < right) {
13                    long sum = (long) nums[i] + nums[j] + nums[left] + nums[right];
14                    if (sum == target) {
15                        result.add(Arrays.asList(nums[i], nums[j], nums[left], nums[right]));
16                        while (left < right && nums[left] == nums[left + 1]) left++;
17                        while (left < right && nums[right] == nums[right - 1]) right--;
18                    }
19                }
20            }
21        }
22        return result;
23    }
24 }
```

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Testcase Test Result

Case 1 Case 2 +

nums =

[1,0,-1,0,-2,2]

target =

Source