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Given an array S of n integers, are there elements a, b, c in S such that a + b + c = 0? Find all unique triplets in the array which gives the sum of zero.

Note: The solution set must not contain duplicate triplets.

For example, given array S = [-1, 0, 1, 2, -1, -4],

A solution set is:

[

[-1, 0, 1],

[-1, -1, 2]

]

解题思路：先排序，大的在后面，固定首个数字，然后两个指针往中间移动，确定剩下两个数字。

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class Solution {

public:

vector<vector<int>> threeSum(vector<int>& nums)

{

sort(nums.begin(),nums.end());

int target,left,right;

vector<vector<int>> result;

if(nums.size()==0)

return result;

vector<int> m1;

for(int i=0;i<nums.size()-2;i++)

{

target=-nums[i];

if(nums[i]>0)

break;

if(nums[i]==nums[i-1] && i>0)

continue;

left=i+1;

right=nums.size()-1;

while(left<right)

{

if(nums[left]+nums[right]==target)

{

m1.push\_back(nums[i]);

m1.push\_back(nums[left]);

m1.push\_back(nums[right]);

result.push\_back(m1);

if(result[result.size()-1]==result[result.size()-2])

result.erase(result.end());

m1.clear();

right--;

left++;

}

else if(nums[left]+nums[right]>target)

right--;

else

left++;

}

}

return result;

}

};