383 Ransom Note (link)

Description

Given two strings `ransomNote` and `magazine`, return `true` *if* `ransomNote` *can be constructed by using the letters from* `magazine` *and* `false` *otherwise*.

Each letter in `magazine` can only be used once in `ransomNote`.

Example 1:

```
Input: ransomNote = "a", magazine = "b"
Output: false
```

Example 2:

```
Input: ransomNote = "aa", magazine = "ab"
Output: false
```

Example 3:

```
Input: ransomNote = "aa", magazine = "aab"
Output: true
```

Constraints:

- `1 <= ransomNote.length, magazine.length <= 10`^{5}
- `ransomNote` and `magazine` consist of lowercase English letters.

(scroll down for solution)

Solution

Language: cpp

Status: Accepted

```cpp
#include <vector>
#include <string>

using namespace std;

class Solution {
public:
    bool canConstruct(string ransomNote, string magazine) {
        // Массив для подсчета количества каждой буквы ('a'-'z')
        vector<int> count(26, 0);

        // Подсчитываем буквы в журнале
        for (char ch : magazine) {
            count[ch - 'a']++;
        }

        // Проверяем ransomNote на основе счетчиков в magazine
        for (char ch : ransomNote) {
            if (count[ch - 'a'] > 0) {
                count[ch - 'a']--;
            } else {
                return false; // Недостаточно символов в magazine
            }
        }

        return true;
    }
};
```