


860. Lemonade Change

Solved 

Easy

Topics

Companies

At a lemonade stand, each lemonade costs $\$5$. Customers are standing in a queue to buy from you and order one at a time (in the order specified by bills). Each customer will only buy one lemonade and pay with either a $\$5$, $\$10$, or $\$20$ bill. You must provide the correct change to each customer so that the net transaction is that the customer pays $\$5$.

Note that you do not have any change in hand at first.

Given an integer array `bills` where `bills[i]` is the bill the i^{th} customer pays, return `true` if you can provide every customer with the correct change, or `false` otherwise.

Example 1:

Input: `bills = [5,5,5,10,20]`

Output: `true`

Explanation:

From the first 3 customers, we collect three $\$5$ bills in order.

From the fourth customer, we collect a $\$10$ bill and give back a $\$5$.

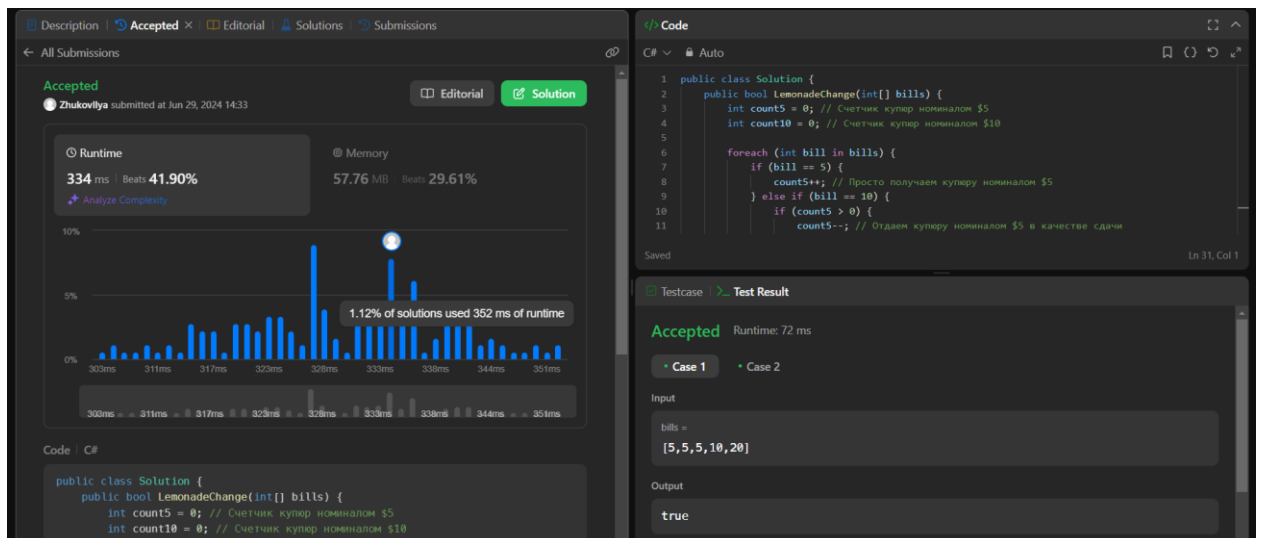
From the fifth customer, we give a $\$10$ bill and a $\$5$ bill.

Since all customers got correct change, we output `true`.

Example 2:

Input: `bills = [5,5,10,10,20]`

Output: `false`



The screenshot displays a code editor interface for the 'Lemonade Change' problem. The left pane shows the problem description and a runtime performance graph. The right pane shows the C# code and test results.

Runtime Performance:

- Runtime: 334 ms, Beats 41.90%
- Memory: 57.76 MB, Beats 29.61%
- 1.12% of solutions used 352 ms of runtime

Code:

```
1 public class Solution {
2     public bool lemonadeChange(int[] bills) {
3         int count5 = 0; // Счетчик купюр номиналом $5
4         int count10 = 0; // Счетчик купюр номиналом $10
5
6         foreach (int bill in bills) {
7             if (bill == 5) {
8                 count5++; // Просто получаем купюру номиналом $5
9             } else if (bill == 10) {
10                 if (count5 > 0) {
11                     count5--; // Отдаем купюру номиналом $5 в качестве сдачи

Test Results:



- Accepted Runtime: 72 ms
- Case 1: bills = [5,5,5,10,20], Output: true

```

Код:

```
public class Solution
{
    public bool LemonadeChange(int[] bills)
    {
        int count5 = 0; // Счетчик купюр номиналом $5
        int count10 = 0; // Счетчик купюр номиналом $10

        foreach (int bill in bills)
```

```

{
    if (bill == 5)
    {
        count5++; // Просто получаем купюру номиналом $5
    }
    else if (bill == 10)
    {
        if (count5 > 0)
        {
            count5--; // Отдаем купюру номиналом $5 в качестве сдачи
            count10++; // Получаем купюру номиналом $10
        }
        else
        {
            return false; // Нет купюр номиналом $5 для сдачи
        }
    }
    else if (bill == 20)
    {
        if (count10 > 0 && count5 > 0)
        {
            count10--; // Отдаем купюру номиналом $10
            count5--; // Отдаем купюру номиналом $5
        }
        else if (count5 >= 3)
        {
            count5 -= 3; // Отдаем три купюры номиналом $5
        }
        else
        {
            return false; // Нет нужных купюр для сдачи
        }
    }
}

return true; // Мы смогли предоставить сдачу каждому покупателю
}

```