821. Shortest Distance to a Character

Solved

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Given a string `s` and a character `c` that occurs in `s`, return *an array of integers* `answer` *where* `answer.length == s.length` *and* `answer[i]` *is the* ***distance*** *from index* `i` *to the* ***closest*** *occurrence of character* `c` *in* `s`.

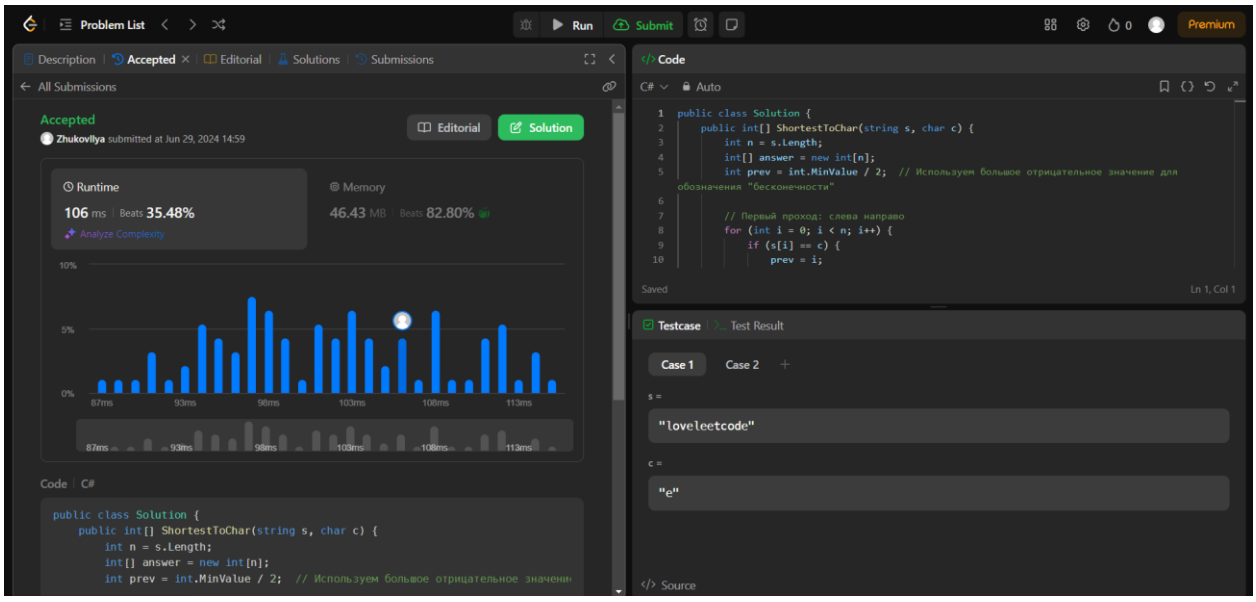
The **distance** between two indices `i` and `j` is `abs(i - j)`, where `abs` is the absolute value function.

Example 1:

> **Input:** s = "loveleetcode", c = "e"
> **Output:** [3,2,1,0,1,0,0,1,2,2,1,0]
> **Explanation:** The character 'e' appears at indices 3, 5, 6, and 11 (0-indexed).
> The closest occurrence of 'e' for index 0 is at index 3, so the distance is abs(0 - 3) = 3.
> The closest occurrence of 'e' for index 1 is at index 3, so the distance is abs(1 - 3) = 2.
> For index 4, there is a tie between the 'e' at index 3 and the 'e' at index 5, but the distance is still the same: abs(4 - 3) == abs(4 - 5) = 1.
> The closest occurrence of 'e' for index 8 is at index 6, so the distance is abs(8 - 6) = 2.

Example 2:

> **Input:** s = "aaab", c = "b"
> **Output:** [3,2,1,0]



Код:

```
using System;

public class Solution
{
    public int[] ShortestToChar(string s, char c)
    {
        int n = s.Length;
```

```
        int[] answer = new int[n];
        int prev = int.MinValue / 2;  // Используем большое отрицательное значение
для обозначения "бесконечности"

        // Первый проход: слева направо
        for (int i = 0; i < n; i++)
        {
            if (s[i] == c)
            {
                prev = i;
            }
            answer[i] = i - prev;
        }

        prev = int.MaxValue / 2;  // Используем большое положительное значение для
обозначения "бесконечности"

        // Второй проход: справа налево
        for (int i = n - 1; i >= 0; i--)
        {
            if (s[i] == c)
            {
                prev = i;
            }
            answer[i] = Math.Min(answer[i], prev - i);
        }

        return answer;
    }
}
```