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🌟 C# Coding Challenge: One Edit Away 🌟

🔍 Problem Description:

You're given two strings, `stringOne` and `stringTwo`. Write a function to determine if these two strings can be made equal using only one edit. The possible edits are:

🔄 Replace: One character is swapped for a different character.

⊕ Add: One character is added at any index.

➡ Remove: One character is removed at any index.

Note: Both strings will contain at least one character. If the strings are the same, the function should return `true`.

🔗 Solution Using C# and AsSpan:

- 1) Check if Strings are Already Equal:
- 2) Calculate Lengths and Convert to Span:
- 3) Determine the Type of Edit Needed:
- 4) Check for One Replacement:
- 5) Check for One Insertion or Removal:

🔑 Complexity Analysis:

Time Complexity: $O(n)$, where n is the length of the shorter string. We iterate through the characters of the strings once.

Space Complexity: $O(1)$. We use a constant amount of extra space.

🚀 Using `ReadOnlySpan<char>` helps us achieve efficient string manipulation with minimal memory allocation, making this solution both elegant and performant.

GitHub Link for complete solution: <https://lnkd.in/duGPxWnH>

#coding #CSharp #programming #softwaredevelopment #codingchallenge #performance #dotnet #developers

```
using System;

public class OneEditAway
{
    public static bool IsOneEditAway(string stringOne, string stringTwo)
    {
        return false;
    }

    private static bool OneReplaceAway(ReadOnlySpan<char> span1, ReadOnlySpan<char> span2)
    {
    }

    private static bool OneInsertOrRemoveAway(ReadOnlySpan<char> shorter, ReadOnlySpan<char> longer)
    {
    }

    public static void Main()
    {
        Console.WriteLine(IsOneEditAway("pale", "ple")); // True
        Console.WriteLine(IsOneEditAway("pales", "pale")); // True
        Console.WriteLine(IsOneEditAway("pale", "bale")); // True
        Console.WriteLine(IsOneEditAway("pale", "bake")); // False
    }
}
```

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