

Sherlock and the Valid String ★

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Sherlock considers a string to be valid if all characters of the string appear the same number of times. It is also valid if he can remove just **1** character at **1** index in the string, and the remaining characters will occur the same number of times. Given a string **s**, determine if it is valid. If so, return YES, otherwise return NO.

Example

s = *abc*

This is a valid string because frequencies are $\{a : 1, b : 1, c : 1\}$.

s = *abcc*

This is a valid string because we can remove one **c** and have **1** of each character in the remaining string.

s = *abccc*

This string is not valid as we can only remove **1** occurrence of **c**. That leaves character frequencies of $\{a : 1, b : 1, c : 2\}$.

Function Description

Complete the isValid function in the editor below.

isValid has the following parameter(s):

- string s: a string

Returns

- string: either YES or NO

Input Format

A single string **s**.

Constraints

- $1 \leq |s| \leq 10^5$
- Each character $s[i] \in \text{ascii}[a - z]$

Sample Input 0

```
aabbcd
```

Sample Output 0

```
NO
```

Explanation 0

Given **s** = "aabbcd", we would need to remove two characters, both c and d \rightarrow aabb or a and b \rightarrow abcd, to make it valid. We are limited to removing only one character, so **s** is invalid.

Sample Input 1

```
aabbccddeefghi
```

Sample Output 1

NO

Explanation 1

Frequency counts for the letters are as follows:

```
{'a': 2, 'b': 2, 'c': 2, 'd': 2, 'e': 2, 'f': 1, 'g': 1, 'h': 1, 'i': 1}
```

There are two ways to make the valid string:

- Remove **4** characters with a frequency of **1**: **{fghi}**.
- Remove **5** characters of frequency **2**: **{abcde}**.

Neither of these is an option.

Sample Input 2

```
abcdefghijklhgfedecba
```

Sample Output 2

YES

Explanation 2

All characters occur twice except for **e** which occurs **3** times. We can delete one instance of **e** to have a valid string.

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Language

C#



```
1 using System.CodeDom.Compiler;
2 using System.Collections.Generic;
3 using System.Collections;
4 using System.ComponentModel;
5 using System.Diagnostics.CodeAnalysis;
6 using System.Globalization;
7 using System.IO;
8 using System.Linq;
9 using System.Reflection;
10 using System.Runtime.Serialization;
11 using System.Text.RegularExpressions;
12 using System.Text;
13 using System;
14
15 class Result
16 {
17
18     /*
19      * Complete the 'isValid' function below.
20      *
21      * The function is expected to return a STRING.
22      * The function accepts STRING s as parameter.
23      */
24
25     public static string isValid(string s)
26     {
27         var groups = s.GroupBy(c => c);
```

Line: 54 Col: 1

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