



Practice > Algorithms > Strings > Sherlock and the Valid String

Sherlock and the Valid String ☆

Problem

Submissions

Leaderboard

Discussions

Editorial

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*.

For example, if *s* = *abc*, it is a valid string because frequencies are *{a : 1, b : 1, c : 1}*. So is *s* = *abcc* because we can remove one *c* and have **1** of each character in the remaining string. If *s* = *abccc* however, the string is not *valid* as we can only remove **1** occurrence of *c*. That would leave character frequencies of *{a : 1, b : 1, c : 2}*.

Input Format

A single string *s*.

Constraints

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

Output Format

Print YES if string *s* is *valid*, otherwise, print NO.

Sample Input 0

```
aabbcd
```

Sample Output 0

```
NO
```

Explanation 0

We would need to remove two characters, both *c* and *d*, from *s* = "aabbcd" 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 **4** characters with a frequency of **1** that would need to be removed: **{fghi}**. If only one of those **4** had been in the string, it would have been valid.

Author

darkshadows

Difficulty

Medium

Max Score

35

Submitted By

28705

NEED HELP?



[View discussions](#) [View editorial](#) [View top submissions](#)


RATE THIS CHALLENGE





MORE DETAILS

[Download problem statement](#) [Download sample test cases](#) [Suggest Edits](#)


Current Buffer (saved locally, editable)  

Java 7 

```
1 ▼ import java.io.*;
2 import java.util.*;
3 import java.text.*;
4 import java.math.*;
5 import java.util.regex.*;
6
7 ▼ public class Solution {
8
9 ▼     static String isValid(String s){
10         // Complete this function
11     }
12
13 ▼     public static void main(String[] args) {
14         Scanner in = new Scanner(System.in);
15         String s = in.next();
16         String result = isValid(s);
17         System.out.println(result);
18     }
19 }
```

Line: 1 Col: 1

 Upload Code as File ☐ Test against custom input

Run Code

Submit Code