



# Sherlock and Valid String



by darkshadows

Problem

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*You know my powers, my dear Watson, and yet at the end of three months I was forced to confess that I had at last met an antagonist who was my intellectual equal.*

A "valid" string is a string  $S$  such that for all distinct characters in  $S$  each such character occurs the same number of times in  $S$ .

For example, **aabb** is a valid string because the frequency of both characters **a** and **b** is 2, whereas **aabbc** is not a valid string because the frequency of characters **a**, **b**, and **c** is not the same.

Watson gives a string  $S$  to Sherlock and asks him to remove some characters from the string such that the new string is a "valid" string.

Sherlock wants to know from you if it's possible to be done with less than or equal to one removal.

## Input Format

The first and only line contains  $S$ , the string Watson gives to Sherlock.

## Output Format

Output **YES** if string  $S$  can be converted to a "valid" string by removing less than or equal to one character.  
Else, output **NO**.

## Constraints:

$1 \leq \text{size of string } S \leq 10^5$

String  $S$  contains lowercase letters (**a - z**) only.

## Sample Input

```
aabbcd
```

## Sample Output

```
NO
```

## Explanation

2 is the minimum number of removals required to make it a valid string. It can be done in following two ways:

Remove **c** and **d** to get **aabb**.

Or remove **a** and **b** to get **abcd**.

Submissions: 3817

Max Score: 100

Difficulty: Difficult

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Current Buffer (saved locally, editable)  

C++   

```
1 #include <cmath>
2 #include <cstdio>
3 #include <vector>
4 #include <iostream>
5 #include <algorithm>
6 using namespace std;
7
8
9 int main() {
10     /* Enter your code here. Read input from STDIN. Print output to STDOUT */
11     return 0;
12 }
13
```

Line: 1 Col: 1

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