

C. Simple Strings

time limit per test: 2 seconds

memory limit per test: 256 megabytes

input: standard input

output: standard output

`zscoder` loves simple strings! A string t is called simple if every pair of adjacent characters are distinct. For example `a`, `b`, `aba`, `zscoder` are simple whereas `aa`, `add` are not simple.

`zscoder` is given a string s . He wants to change a minimum number of characters so that the string s becomes simple. Help him with this task!

Input

The only line contains the string s ($1 \leq |s| \leq 2 \cdot 10^5$) — the string given to `zscoder`. The string s consists of only lowercase English letters.

Output

Print the simple string s' — the string s after the minimal number of changes. If there are multiple solutions, you may output any of them.

Note that the string s' should also consist of only lowercase English letters.

Examples

input
<code>aab</code>
output
<code>bab</code>

input
<code>caaab</code>
output
<code>cabab</code>

input
<code>zscoder</code>
output
<code>zscoder</code>