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SOLVE LATER

Omar And Strings

Attempted by: **1** / Accuracy: **100%** / ★★★★★

Tag(s): Hashing, Medium, String Algorithms, Z-algorithm

PROBLEM   EDITORIAL   ANALYTICS   🏆 Basic Practice Questions

Today while studying Omar reads many words in books and references. He feels bored enough to stop reading he has noticed something strange. All the words in some statement can be read the same from left to right and from right to left. Later, Omar discovered that this type of strings is called palindromic strings.

After some thinking Omar wants to create a new type of strings and gives that type a name derived from his name, so he invents a new type of strings and calls it omeric strings. Omar's friend Hazem loves prefixes and Eid loves suffixes so Omar will take this into consideration while inventing the new type. To make a string omeric from a string **s** you should concatenate the longest palindromic suffix with the longest palindromic prefix.

Then Omar wants to know how many times each prefix of his omeric string can be found in this string as a substring. Substring of the string can be defined by two indices L and R and equals $s_L s_{L+1} \ldots s_R$.

Input:

The first line of the input contains a string **s** of length **N**, $1 \le N \le 10^5$.

The given string consists only of lowercase characters.

Output:

Print the omeric string in the first line. Print the frequency of each prefix in the second line.

Explanation

Longest palindromic suffix equals "bb". Longest palindromic prefix equals "aa". Omeric string is "bbaa".
Only the first prefix "b" has appeared 2 times as a substring, while "bb", "bba", "bbaa" have appeared only 1 time in the omeric string.

Time Limit:	1.0 sec(s) for each input file.
Memory Limit:	256 MB
Source Limit:	1024 KB
Marking Scheme:	Marks are awarded when all the testcases pass.

Allowed Languages: C, C++, Clojure, C#, D, Erlang, F#, Go, Groovy, Haskell, Java, Java 8, JavaScript(Rhino), JavaScript(Node.js), Lisp, Lisp (SBCL), Lua, Objective-C, OCaml, Octave, Pascal, Perl, PHP, Python, Python 3, R(RScript), Racket, Ruby, Rust, Scala, Swift, Visual Basic

CODE EDITOR

Enter your code or ⬆ Upload your code as file.   All changes saved   Visual Basic (mono vbnc 4.0.1)   ⚙

```
1  Loading...
```

1:1

COMPILE & RUN   SUBMIT

💡 **Press ctrl-space for autocomplete suggestions.**

POWERED BY **code** table

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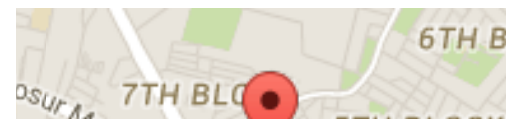
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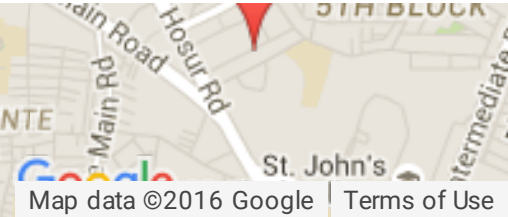
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