

D. Password

time limit per test: 2 seconds
memory limit per test: 256 megabytes

Asterix, Obelix and their temporary buddies Suffix and Prefix has finally found the Harmony temple. However, its doors were firmly locked and even Obelix had no luck opening them.

A little later they found a string s , carved on a rock below the temple's gates. Asterix supposed that that's the password that opens the temple and read the string aloud. However, nothing happened. Then Asterix supposed that a password is some substring t of the string s .

Prefix supposed that the substring t is the beginning of the string s ; Suffix supposed that the substring t should be the end of the string s ; and Obelix supposed that t should be located somewhere inside the string s , that is, t is neither its beginning, nor its end.

Asterix chose the substring t so as to please all his companions. Besides, from all acceptable variants Asterix chose the longest one (as Asterix loves long strings). When Asterix read the substring t aloud, the temple doors opened.

You know the string s . Find the substring t or determine that such substring does not exist and all that's been written above is just a nice legend.

Input

You are given the string s whose length can vary from 1 to 10^6 (inclusive), consisting of small Latin letters.

Output

Print the string t . If a suitable t string does not exist, then print "Just a legend" without the quotes.

Examples

input	<div>Copy</div>
fixprefixsuffix	
output	<div>Copy</div>
fix	

input	<div>Copy</div>
abcdabc	
output	<div>Copy</div>
Just a legend	

→ Attention


The package for this problem was not updated by the problem writer or Codeforces administration after we've upgraded the judging servers. To adjust the time limit constraint, a solution execution time will be multiplied by 2. For example, if your solution works for 400 ms on judging servers, then the value 800 ms will be displayed and used to determine the verdict.

Codeforces Beta Round 93 (Div. 2 Only).

Finished


Practice



→ Virtual participation 

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

Start virtual contest

→ Clone Contest to Mashup 

You can clone this contest to a mashup.

Clone Contest

→ Submit?

Language:

GNU G++20 13.2 (64 bit, win

Choose file:

Choose File

 No file chosen

Submit

→ Last submissions

Submission	Time	Verdict
280132076	Sep/07/2024 03:54	Accepted
280131991	Sep/07/2024 03:52	Runtime error on test 7
280131957	Sep/07/2024 03:51	Wrong answer on test 1
280131907	Sep/07/2024 03:50	Wrong answer on test 2
280131682	Sep/07/2024 03:44	Wrong answer on test 3
280131649	Sep/07/2024 03:43	Wrong answer on test 5
280131598	Sep/07/2024 03:42	Wrong answer on test 4
280131581	Sep/07/2024 03:41	Wrong answer on test 1
280131448	Sep/07/2024 03:37	Wrong answer on test 3