

E. Plug-in

time limit per test: 1 second

memory limit per test: 256 megabytes

Polycarp thinks about the meaning of life very often. He does this constantly, even when typing in the editor. Every time he starts brooding he can no longer fully concentrate and repeatedly presses the keys that need to be pressed only once. For example, instead of the phrase "how are you" he can type "hhoow aaaare yyooou".

Polycarp decided to automate the process of correcting such errors. He decided to write a plug-in to the text editor that will remove pairs of identical consecutive letters (if there are any in the text). Of course, this is not exactly what Polycarp needs, but he's got to start from something!

Help Polycarp and write the main plug-in module. Your program should remove from a string all pairs of identical letters, which are consecutive. If after the removal there appear new pairs, the program should remove them as well. Technically, its work should be equivalent to the following: while the string contains a pair of consecutive identical letters, the pair should be deleted. Note that deleting of the consecutive identical letters can be done in any order, as any order leads to the same result.

Input

The input data consists of a single line to be processed. The length of the line is from 1 to $2 \cdot 10^5$ characters inclusive. The string contains only lowercase Latin letters.

Output

Print the given string after it is processed. It is guaranteed that the result will contain at least one character.

Examples

input	Copy
hhoowaaaareyyooou	
output	Copy
wre	
input	Copy
reallazy	
output	Copy
rezy	
input	Copy
abacabaabacabaa	
output	Copy
a	

→ 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.

ICPC Assiut University Training - Juniors Phase 1 Sheets-2022

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→ Group Contests

- Juniors Phase 1 Practice #5 (Bitmask, Bitset, Bits)
- Juniors Phase 1 Practice #4 (Binary search , Two pointers)
- Juniors Phase 1 Practice #3 (STL 2)
- Juniors Phase 1 Practice #2 (STL 1)
- Juniors Phase 1 Practice #1 (Prefix sum , Frequency Array)

Juniors Phase 1 Practice #2 (STL 1)

Finished
Practice


→ About Time Scaling

This contest uses time limits scaling policy (depending on a programming language). The system automatically adjusts time limits by the following multipliers for some languages. Despite scaling (adjustment), the time limit cannot be more than 30 seconds. Read the details by the [link](#).

→ 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

→ Submit?

Language:

GNU G++20 13.2 (64 bit, win