

Problem H. Hidden Palindrome

Input file: *standard input*
Output file: *standard output*
Time limit: 2 seconds
Memory limit: 256 mebibytes

Rabbit loves to make strings balanced. She is given a string S , which is not a palindrome. She is going to erase some of the letters from S so that the resulting string will be a palindrome.

Let T be the string obtained by concatenating the erased letters, preserving their relative order in S . Write a program that finds the lexicographically earliest possible T .

Input

The input is given in the following format:

S

The first line contains a string S . S consists of uppercase English letters, and its length is between 2 and 100, inclusive. S is not a palindrome.

Output

Your program should output a string: the lexicographically earliest possible T .

Examples

standard input	standard output
EXAMPLE	AMPL
URTAMMBBTIUT	RABBIT
000000000000000Q	000000000000000