

String Reductions

Given a string, $str = s_1, s_2 \dots s_n$, consisting of n lowercase English characters ($a - z$), remove all of the characters that occurred previously in the string. Formally, remove all characters, s_i , for:

$$\exists j, s_j = s_i \text{ and } j < i$$

Input Format

A single line of input containing a string str of length n .

Constraints

- $1 \leq n \leq 10^5$
- $s_i \in \{a, b, \dots, z\}$, where $1 \leq i \leq n$

Output Format

Print the string after removing all the characters that occurred previously.

Sample Input #00

accabb

Sample Output #00

acb

Sample Input #01

abc

Sample Output #01

abc

Sample Input #02

prrrq

Sample Output #02

prq

Explanation

Test case #00: For $str = "accabb"$, characters at indexes **3, 4, 6** are removed as they have already occurred.

Test case #01: As each character occurs only once, nothing is removed.

Test case #02: For $str = "prrrq"$, each character occurs twice. The second of these characters is

removed. Characters at positions **2**, **4** and **6** are removed.

Tested by [Wanbo](#)