Given a string s, remove duplicate letters so that every letter appears once and only once. You must make sure your result is

**the smallest in lexicographical order**

among all possible results.

**Example 1:**

Input: s = "bcabc"  
Output: "abc"

**Example 2:**

Input: s = "cbacdcbc"  
Output: "acdb"

**Constraints:**

* 1 <= s.length <= 104
* s consists of lowercase English letters.

**Note:** This question is the same as 1081: <https://leetcode.com/problems/smallest-subsequence-of-distinct-characters/>