There is a new alien language that uses the English alphabet. However, the order of the letters is unknown to you.

You are given a list of strings words from the alien language's dictionary. Now it is claimed that the strings in words are

**sorted lexicographically**

by the rules of this new language.

If this claim is incorrect, and the given arrangement of string in words cannot correspond to any order of letters, return "".

Otherwise, return *a string of the unique letters in the new alien language sorted in* ***lexicographically increasing order*** *by the new language's rules.* If there are multiple solutions, return ***any of them***.

**Example 1:**

Input: words = ["wrt","wrf","er","ett","rftt"]  
Output: "wertf"

**Example 2:**

Input: words = ["z","x"]  
Output: "zx"

**Example 3:**

Input: words = ["z","x","z"]  
Output: ""  
Explanation: The order is invalid, so return "".

**Constraints:**

* 1 <= words.length <= 100
* 1 <= words[i].length <= 100
* words[i] consists of only lowercase English letters.