

980. Find the Shortest Superstring

Difficulty : Hard

<https://leetcode.com/problems/find-the-shortest-superstring>

Given an array of strings `words`, return *the smallest string that contains each string in `words` as a substring*. If there are multiple valid strings of the smallest length, return **any of them**.

You may assume that no string in `words` is a substring of another string in `words`.

Example 1:

Input: `words = ["alex", "loves", "leetcode"]`

Output: `"alexlovesleetcode"`

Explanation: All permutations of `"alex", "loves", "leetcode"` would also be accepted.

Example 2:

Input: `words = ["catg", "ctaagt", "gcta", "ttca", "atgcatc"]`

Output: `"gctaagttcatgcatc"`

Constraints:

- `1 <= words.length <= 12`
- `1 <= words[i].length <= 20`
- `words[i]` consists of lowercase English letters.
- All the strings of `words` are **unique**.