Problem 1181: Before and After Puzzle

Problem Information

Difficulty: Medium
Acceptance Rate: 51.60%
Paid Only: Yes
Tags: Array, Hash Table, String, Sorting

Problem Description

Given a list of `phrases`, generate a list of Before and After puzzles.

A _phrase_ is a string that consists of lowercase English letters and spaces only. No space appears in the start or the end of a phrase. There are no consecutive spaces in a phrase.

Before and After puzzles are phrases that are formed by merging two phrases where the **last word of the first phrase** is the same as the **first word of the second phrase**. Note that only the _last word of the first phrase_ and the _first word of the second phrase_ are merged in this process.

Return the Before and After puzzles that can be formed by every two phrases `phrases[i]` and `phrases[j]` where `i != j`. Note that the order of matching two phrases matters, we want to consider both orders.

You should return a list of **distinct** strings **sorted lexicographically**, after removing all _duplicate_ phrases in the generated Before and After puzzles.

Example 1:

Input: phrases = ["writing code","code rocks"]

Output: ["writing code rocks"]

Example 2:

Input: phrases = ["mission statement","a quick bite to eat","a chip off the old block","chocolate bar","mission impossible","a man on a mission","block party","eat my words","bar of soap"]

Output: ["a chip off the old block party","a man on a mission impossible","a man on a mission statement","a quick bite to eat my words","chocolate bar of soap"]

Example 3:

Input: phrases = ["a","b","a"]

Output: ["a"]

Example 4:

Input: phrases = ["ab ba","ba ab","ab ba"]

Output: ["ab ba ab","ba ab ba"]

Constraints:

* `1 <= phrases.length <= 100` * `1 <= phrases[i].length <= 100`

Code Snippets

C++:

```
class Solution {
public:
vector<string> beforeAndAfterPuzzles(vector<string>& phrases) {

}
};
```

Java:

```
class Solution {
public List<String> beforeAndAfterPuzzles(String[] phrases) {
```

```
}
}
```

Python3:

```
class Solution:
def beforeAndAfterPuzzles(self, phrases: List[str]) -> List[str]:
```