

336. Palindrome Pairs

You are given a 0-indexed array of unique strings words.

A palindrome pair is a pair of integers (i, j) such that:

- $0 \leq i, j < \text{words.length}$,
- $i \neq j$, and
- $\text{words}[i] + \text{words}[j]$ (the concatenation of the two strings) is a palindrome

Return an array of all the palindrome pairs of words.

You must write an algorithm with $O(\sum \text{words}[i].\text{length})$ runtime complexity.

Example 1:

- **Input:** words = ["abcd","dcba","lls","s","sssll"]
- **Output:** [[0,1],[1,0],[3,2],[2,4]]
- **Explanation:** The palindromes are ["abccddcba","dcbaabcd","slls","llssssll"]

Example 2:

Input: words = ["bat","tab","cat"]

Output: [[0,1],[1,0]]

Explanation: The palindromes are ["battab","tabbat"]

Example 3:

- **Input:** words = ["a",""]
- **Output:** [[0,1],[1,0]]
- **Explanation:** The palindromes are ["a","a"]

Constraints:

- $1 \leq \text{words.length} \leq 5000$
- $0 \leq \text{words}[i].\text{length} \leq 300$
- words[i] consists of lowercase English letters.