

Problem 2744: Find Maximum Number of String Pairs

Problem Information

Difficulty: Easy

Acceptance Rate: 82.04%

Paid Only: No

Tags: Array, Hash Table, String, Simulation

Problem Description

You are given a **0-indexed** array `words` consisting of **distinct** strings.

The string `words[i]` can be paired with the string `words[j]` if:

* The string `words[i]` is equal to the reversed string of `words[j]`. * $0 \leq i < j < \text{words.length}$.

Return **the maximum** number of pairs that can be formed from the array `words`.

Note that each string can belong in **at most one** pair.

Example 1:

Input: `words = ["cd", "ac", "dc", "ca", "zz"]` **Output:** 2 **Explanation:** In this example, we can form 2 pair of strings in the following way: - We pair the 0th string with the 2nd string, as the reversed string of word[0] is "dc" and is equal to words[2]. - We pair the 1st string with the 3rd string, as the reversed string of word[1] is "ca" and is equal to words[3]. It can be proven that 2 is the maximum number of pairs that can be formed.

Example 2:

Input: `words = ["ab", "ba", "cc"]` **Output:** 1 **Explanation:** In this example, we can form 1 pair of strings in the following way: - We pair the 0th string with the 1st string, as the reversed string of words[1] is "ab" and is equal to words[0]. It can be proven that 1 is the maximum number of pairs that can be formed.

****Example 3:****

****Input:**** words = ["aa","ab"] ****Output:**** 0 ****Explanation:**** In this example, we are unable to form any pair of strings.

****Constraints:****

* `1 <= words.length <= 50` * `words[i].length == 2` * `words` consists of distinct strings. * `words[i]` contains only lowercase English letters.

Code Snippets

C++:

```
class Solution {
public:
    int maximumNumberOfStringPairs(vector<string>& words) {

    }
};
```

Java:

```
class Solution {
    public int maximumNumberOfStringPairs(String[] words) {

    }
}
```

Python3:

```
class Solution:
    def maximumNumberOfStringPairs(self, words: List[str]) -> int:
```