

Problem 2451: Odd String Difference

Problem Information

Difficulty: Easy

Acceptance Rate: 61.65%

Paid Only: No

Tags: Array, Hash Table, String

Problem Description

You are given an array of equal-length strings `words`. Assume that the length of each string is `n`.

Each string `words[i]` can be converted into a **difference integer array** `difference[i]` of length `n - 1` where `difference[i][j] = words[i][j+1] - words[i][j]` where `0 <= j <= n - 2`. Note that the difference between two letters is the difference between their **positions** in the alphabet i.e. the position of 'a' is '0', 'b' is '1', and 'z' is '25'.

* For example, for the string "acb", the difference integer array is `[2 - 0, 1 - 2] = [2, -1]`.

All the strings in words have the same difference integer array, **except one**. You should find that string.

Return _the string in_`words` _that has different**difference integer array**._

Example 1:

Input: words = ["adc", "wzy", "abc"] **Output:** "abc" **Explanation:** - The difference integer array of "adc" is [3 - 0, 2 - 3] = [3, -1]. - The difference integer array of "wzy" is [25 - 22, 24 - 25] = [3, -1]. - The difference integer array of "abc" is [1 - 0, 2 - 1] = [1, 1]. The odd array out is [1, 1], so we return the corresponding string, "abc".

Example 2:

Input: words = ["aaa", "bob", "ccc", "ddd"] **Output:** "bob" **Explanation:** All the integer arrays are [0, 0] except for "bob", which corresponds to [13, -13].

****Constraints:****

* `3 <= words.length <= 100` * `n == words[i].length` * `2 <= n <= 20` * `words[i]` consists of lowercase English letters.

Code Snippets

C++:

```
class Solution {  
public:  
    string oddString(vector<string>& words) {  
  
    }  
};
```

Java:

```
class Solution {  
public String oddString(String[] words) {  
  
}  
}
```

Python3:

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