

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:
```