Problem 2559: Count Vowel Strings in Ranges

Problem Information

Difficulty: Medium
Acceptance Rate: 67.82%
Paid Only: No
Tags: Array, String, Prefix Sum

Problem Description

You are given a **0-indexed** array of strings `words` and a 2D array of integers `queries`.

Each query `queries[i] = [li, ri]` asks us to find the number of strings present at the indices ranging from `li` to `ri` (both **inclusive**) of `words` that start and end with a vowel.

Return _an array_`ans` _of size_`queries.length` _, where_`ans[i]`_is the answer to the_`i`th _query_.

Note that the vowel letters are `'a'`, `'e'`, `'i'`, `'o'`, and `'u'`.

Example 1:

Input: words = ["aba","bcb","ece","aa","e"], queries = [[0,2],[1,4],[1,1]] **Output:** [2,3,0] **Explanation:** The strings starting and ending with a vowel are "aba", "ece", "aa" and "e". The answer to the query [0,2] is 2 (strings "aba" and "ece"). to query [1,4] is 3 (strings "ece", "aa", "e"). to query [1,1] is 0. We return [2,3,0].

Example 2:

Input: words = ["a","e","i"], queries = [[0,2],[0,1],[2,2]] **Output:** [3,2,1] **Explanation:** Every string satisfies the conditions, so we return [3,2,1].

Constraints:

* `1 <= words.length <= 105` * `1 <= words[i].length <= 40` * `words[i]` consists only of lowercase English letters. * `sum(words[i].length) <= 3 * 105` * `1 <= queries.length <= 105` *

`0 <= li <= ri < words.length`

Code Snippets

C++:

```
class Solution {
public:
vector<int> vowelStrings(vector<string>& words, vector<vector<int>>& queries)
{

}
};
```

Java:

```
class Solution {
public int[] vowelStrings(String[] words, int[][] queries) {

}
}
```

Python3:

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