Problem 1371: Find the Longest Substring Containing Vowels in Even Counts

Problem Information

Difficulty: Medium
Acceptance Rate: 75.71%
Paid Only: No
Tags: Hash Table, String, Bit Manipulation, Prefix Sum

Problem Description

Given the string `s`, return the size of the longest substring containing each vowel an even number of times. That is, 'a', 'e', 'i', 'o', and 'u' must appear an even number of times.

Example 1:

Input: s = "eleetminicoworoep" **Output:** 13 **Explanation:** The longest substring is "leetminicowor" which contains two each of the vowels: **e** , **i** and **o** and zero of the vowels: **a** and **u**.

Example 2:

Input: s = "leetcodeisgreat" **Output:** 5 **Explanation:** The longest substring is "leetc" which contains two e's.

Example 3:

Input: s = "bcbcbc" **Output:** 6 **Explanation:** In this case, the given string "bcbcbc" is the longest because all vowels: **a** , **e** , **i** , **o** and **u** appear zero times.

Constraints:

* `1 <= s.length <= 5 x 10^5` * `s` contains only lowercase English letters.

Code Snippets

C++:

```
class Solution {
public:
int findTheLongestSubstring(string s) {

}
};
```

Java:

```
class Solution {
public int findTheLongestSubstring(String s) {

}
}
```

Python3:

```
class Solution:
def findTheLongestSubstring(self, s: str) -> int:
```