Problem 3306: Count of Substrings Containing Every Vowel and K Consonants II

Problem Information

Difficulty: Medium
Acceptance Rate: 40.62%
Paid Only: No
Tags: Hash Table, String, Sliding Window

Problem Description

You are given a string `word` and a **non-negative** integer `k`.

Return the total number of substrings of `word` that contain every vowel (`'a'`, `'e'`, `'i'`, `'o'`, and `'u'`) **at least** once and **exactly** `k` consonants.

Example 1:

Input: word = "aeioqq", k = 1

Output: 0

Explanation:

There is no substring with every vowel.

Example 2:

Input: word = "aeiou", k = 0

Output: 1

Explanation:

The only substring with every vowel and zero consonants is `word[0..4]`, which is `"aeiou"`.

Example 3:

Input: word = "ieaouqqieaouqq", k = 1

Output: 3

Explanation:

The substrings with every vowel and one consonant are:

* `word[0..5]`, which is `"ieaouq"`. * `word[6..11]`, which is `"qieaou"`. * `word[7..12]`, which is `"ieaouq"`.

Constraints:

* `5 <= word.length <= 2 * 105` * `word` consists only of lowercase English letters. * `0 <= k <= word.length - 5`

Code Snippets

C++:

```
class Solution {
public:
long long countOfSubstrings(string word, int k) {


}
};
```

Java:

```
class Solution {
public long countOfSubstrings(String word, int k) {


}
}
```

Python3:

```python
class Solution:
    def countOfSubstrings(self, word: str, k: int) -> int:
```