Problem 1759: Count Number of Homogenous Substrings

Problem Information

Difficulty: Medium
Acceptance Rate: 57.38%
Paid Only: No
Tags: Math, String

Problem Description

Given a string `s`, return _the number of**homogenous** substrings of _`s` _._ Since the answer may be too large, return it **modulo** `109 + 7`.

A string is **homogenous** if all the characters of the string are the same.

A **substring** is a contiguous sequence of characters within a string.

Example 1:

Input: s = "abbcccaa" **Output:** 13 **Explanation:** The homogenous substrings are listed as below: "a" appears 3 times. "aa" appears 1 time. "b" appears 2 times. "bb" appears 1 time. "c" appears 3 times. "cc" appears 2 times. "ccc" appears 1 time. 3 + 1 + 2 + 1 + 3 + 2 + 1 = 13.

Example 2:

Input: s = "xy" **Output:** 2 **Explanation:** The homogenous substrings are "x" and "y".

Example 3:

Input: s = "zzzzz" **Output:** 15

Constraints:

* `1 <= s.length <= 105` * `s` consists of lowercase letters.

Code Snippets

C++:

```cpp
class Solution {
public:
    int countHomogenous(string s) {


    }
};
```

Java:

```java
class Solution {
public int countHomogenous(String s) {


    }
}
```

Python3:

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