

5677. Count Number of Homogenous Substrings

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Given a string *s*, return the number of **homogenous** substrings of *s*. Since the answer may be too large, return it **modulo** $10^9 + 7$.

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:

- $1 \leq s.length \leq 10^5$
- s* consists of lowercase letters.

JavaScript

db

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```
1 /**
2  * @param {string} s
3  * @return {number}
4  */
5 const MOD = 1e9 + 7;
6 const countHomogenous = (s) => {
7     let n = s.length;
8     let a = [];
9     let start = 0;
10    for (let i = 0; i + 1 < n; i++) {
11        if (s[i + 1] !== s[i]) {
12            a.push(s.slice(start, i + 1));
13            start = i + 1;
14        }
15    }
16    a.push(s.slice(start));
17    let res = 0;
18    for (const e of a) {
19        let len = e.length;
20        res += sum(len);
21    }
```


```
22     return res % MOD;
23 };
24
25 ▾ const sum = (n) => {
26     return (1 + n) * n / 2;
27 };
```

☒ Custom Testcase[Use Example Testcases](#)


"abbcccaa"

"xy"

"zzzzz"

 How to create a testcase ▾

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