



2743. Count Substrings Without Repeating Character Premium

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You are given a string `s` consisting only of lowercase English letters. We call a substring **special** if it contains no character which has occurred at least twice (in other words, it does not contain a repeating character). Your task is to count the number of **special** substrings. For example, in the string `"pop"`, the substring `"po"` is a **special** substring, however, `"pop"` is not **special** (since `'p'` has occurred twice).

Return *the number of **special** substrings*.

A **substring** is a contiguous sequence of characters within a string. For example, `"abc"` is a substring of `"abcd"`, but `"acd"` is not.

Example 1:

Input: `s = "abcd"`

Output: `10`

Explanation: Since each character occurs once, every substring is a special substring. We have 4 substrings of length one, 3 of length two, 2 of length three, and 1 substring of length four. So overall there are $4 + 3 + 2 + 1 = 10$ special substrings.

Example 2:

Input: `s = "ooo"`

Output: `3`

Explanation: Any substring with a length of at least two contains a repeating character. So we have to count the number of substrings of length one, which is 3.

Example 3:

Input: `s = "abab"`

Output: `7`

Explanation: Special substrings are as follows (sorted by their start positions):

Special substrings of length 1: `"a"`, `"b"`, `"a"`, `"b"`

Special substrings of length 2: `"ab"`, `"ba"`, `"ab"`

And it can be shown that there are no special substrings with a length of at least three. So the answer would be $4 + 3 = 7$.

Constraints:

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

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