codestorywithMIK

STRINGS...

Video-24

Leetcode
-1759

Medium

Count Number Of Homogenous Substrings...

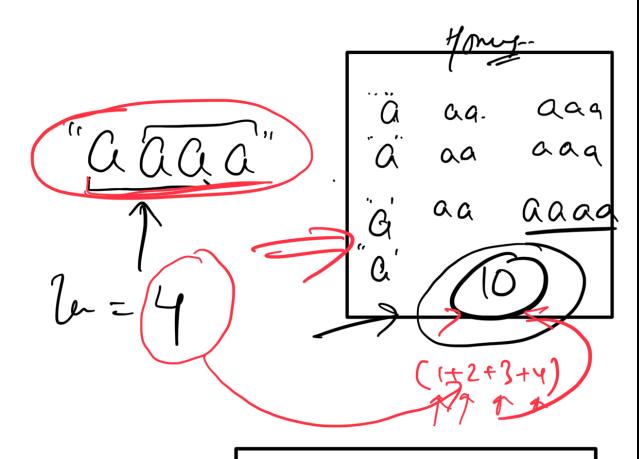**Medium** 👍 728 👎 46 ☆ ⟳

🔒 Companies

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.

$\mathcal{E}$xample :- S = "abbcccaa"

Output :- 13

"b"   "bb"   "a"
"b"   "c"   "a"
             "c"   "aa"
             "c"
             "cc"
             "cc"
             "ccc"

$\mathcal{I}$NTUITION

"abbcccaa" $\Longleftarrow$

Honey--

ä	aa.	aaa
ä	aa	aaa
"a"	aa	aaaa
"a"		

"aaaa"

$lu = 4$

⑩

$(1+2+3+4)$

"aaa"

"a"	aa˘	aaa
"a"	"aa"	
"a"	6	$(1+2+3)$

$lu = 3$

"aa"

"a"

"aa"

$L = 2$

3 $\rightarrow (1+2) = 3$

"a b b c c c [a a]" i

$l=2$

length = $1+1$

T.C·O(n).

result = 1 ← 'a'
1 ← 'b'
2 ← 'bb'

1
2
3
1
2

length = 0;

for (i = 0; i<n; i++) {

  if (i>0 && S[i] == S[i-1]) {

    length += 1;

  } else {

    len = 1;

  }

  result += length;

y