⇒ String misc.

str :-

abbcccddddeeeeeffgghheecccc

1 2 3 4 5 2 2 2 2 4

max len = 5

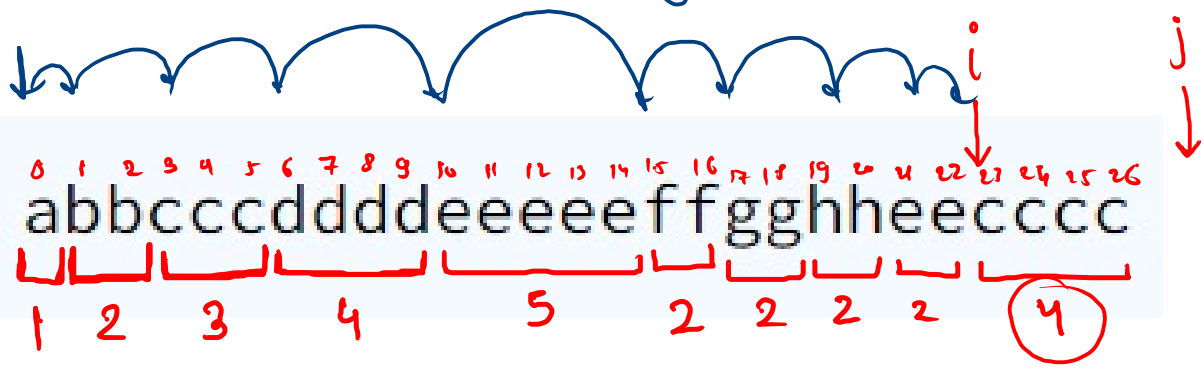
char = 'e'

Approch 1

- a
  - ab
    - abb
      - ...
- b
  - bb
    - bbc
      - bbcc.
        - ...
- c
  - cc
    - ccc
      - cccd
        - ...

TLE

T.C = O(N), N = length



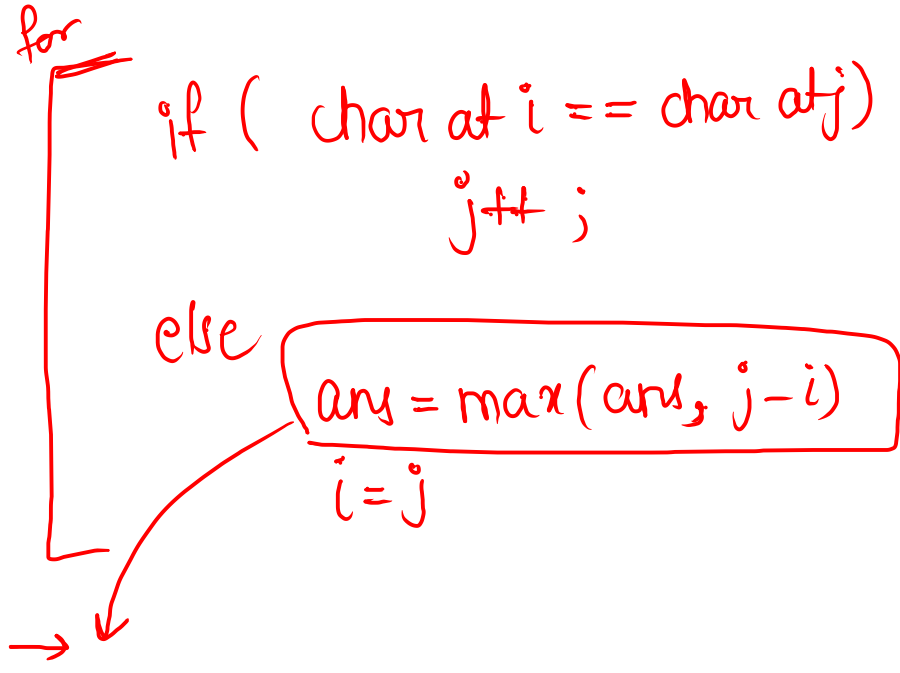
2 pointer ap.

last seq. need to be considered after loop

In worst case

2 × N

ans = ~~0~~ ~~1~~ ~~2~~ ~~3~~ ~~4~~ 5



```java
public static void main(String[] args) {
    Scanner scn = new Scanner(System.in);
    String str = scn.nextLine();
    System.out.println(powerOfString(str));
}

public static int powerOfString(String str) {
    int n = str.length();
    int len = 0;
    int count = 1;
    for (int i = 0; i < n - 1; i++) {
        if ( str.charAt(i) == str.charAt(i + 1) ) {
            count++;
        } else {
            len = Math.max( len, count );
            count = 1;
        }
    }
    len = Math.max( len, count );
    return len;
}
```

Code

len = max(5, 2)

n = 27

len = 0 1 2 3 4 5 8

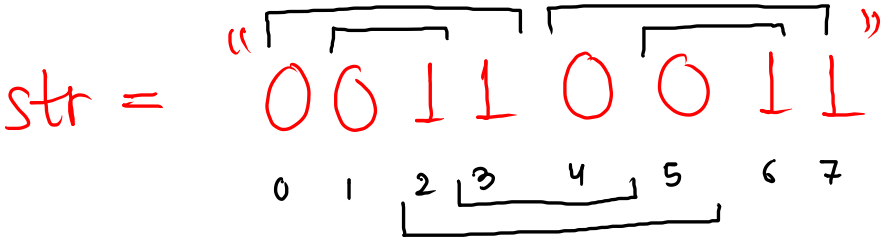
count = 1 2 1 2 3 1 2 3 4 1 2 3 4 5 1 2 1 2 1 2 1 2 1 2 3 4 5 6 7 8

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26

abbcccddddeeeeeffgghheecccc cccc

8c

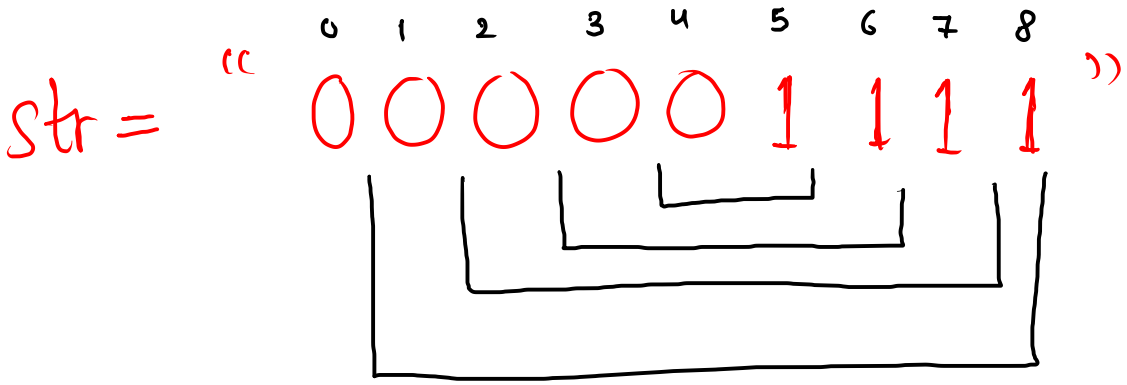
Count Substring of 0 and 1



(1, 2) → 01
(0, 3) → 0011
(4, 7) → 0011
(5, 6) → 01
(2, 5) → 1100
(3, 4) → 10

} 6

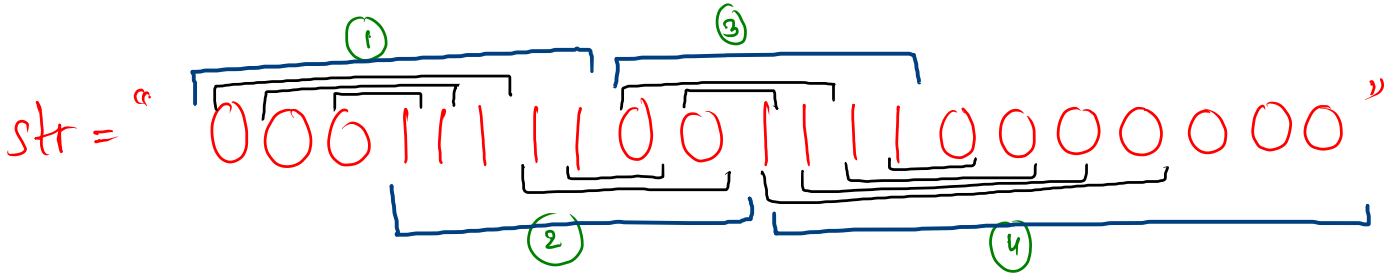
↳ equal 0's & 1's
↳ all zero and all one's should be grouped together



ans = 4

Intution :- Count 0's and Count 1's

So, for 1 sequence/pair ans would be min(0's, 1's)



	no. of 0's	no. of 1's	ans
(1) pair =	3	5	3
(2) pair =	2	5	2
(3) pair =	2	4	2
(4) pair =	7	4	4
			11