

Power of a String

Problem	Submissions	Leaderboard	Discussions
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Take a String `str` as input and calculate the Power of the string.

Power of a string is defined as the maximum length of substring that contains only one unique character.

Sample Input 0

abbccdddeeeeffgghhecccc

Sample Output 0

5

Power of a string

↳ substring \rightarrow 1 character

↳

$O(n^3)$

$O(n^3)$

`str = "abbccdddeeeeffgghhecccc"`

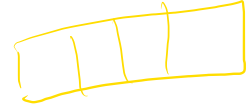
(a) 1
ab
abb
abbc

b 1
bb
bbb
bbcc

c 1
cc
ccc
ckcd

d 1
dd
ddd

e 1
ee
eee
eeee



$O(n^3)$, \rightarrow cat sa

\downarrow

\rightarrow

$O(n)$

\rightarrow no

`str = "abbccdddeeeeffgghhecccc"`

$i(i+1)$

count = 1, 2, 3, 4, 5
maxlen = 1, 2, 3, 4, 5

if (`str.charAt(i) == str.charAt(i-1)`)
 count + 1

else if (`count > maxlen`)
 maxlen = count
 count = 1

if (`count > maxlen`)
 maxlen = count

return maxlen

Merge Strings Alternatively

Problem

Submissions

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Take two strings as input.

Merge both the strings alternatively.

Note: Length of strings will be same.

Sample Input 0

GEEK
STER

Sample Output 0

GSETEEKR

if (n > m)

str1 = "GEEK"
str2 = "STER"

i = 0, j = 0
ans = GSETEEKR

```
string ans = ""  
for (int i = 0; i < str1.length(); i++)  
{  
    ans += str1.charAt(i);  
    ans += str2.charAt(i);  
}
```

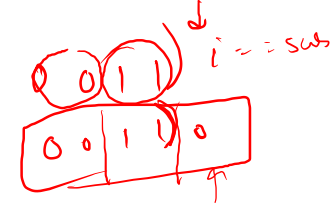
5
ans (ans)

→ substring length() > 1

→ ch1 → , i == substring → false

count ch1 = 2
→ 0

8th = 00110011

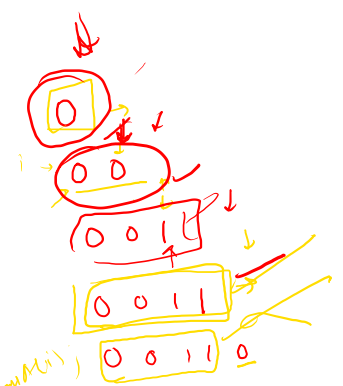


Sample input 0

00110011

Sample Output 0

6



0 0 1 1 0 0
0 0 1 1 0 0 1
0 0 1 1 0 0 1 1

i = 2 3

ch2 = 1

count ch2 = 1

while (1 & substring && ch2 == substring count)
i++
count ch2++
if (i == substring)

}

X → false

→ check consecutive

i = 2, count ch2 = 2

ch1 = '0', while (i == substring length() && ch1 == '0', count ch1++)

i++
count ch1++

if (i == substring length() → false)

```

public static boolean checkConsecutive(String str){

    if(str.length()==1){
        return false;
    }

    int countCh1=1;
    int i=1;
    char ch1=str.charAt(0);

    while(i<str.length() && ch1==str.charAt(i)){
        countCh1++;
        i++;
    }

    if(i==str.length()){
        return false;
    }

    int countCh2=1;
    char ch2=str.charAt(i);
    i+=1;

    while(i<str.length() && ch2==str.charAt(i)){
        countCh2++;
        i++;
    }

    if(countCh1!=countCh2){
        return false;
    }

    if(i==str.length()){
        return true;
    }

    return false;

}

```

```

public static void countSubstring(String str){

    int ans=0;
    for(int i=0;i<str.length();i++){
        for(int j=i;j<str.length();j++){
            String substring="";
            for(int k=i;k<=j;k++){
                substring+=str.charAt(k);
            }
            boolean check=checkConsecutive(substring);
            if(check==true){
                ans++;
            }
        }
    }

    System.out.println(ans);
}

public static void main(String[] args) {
    /* Enter your code here. Read input from STDIN. Print c
    Scanner scn=new Scanner(System.in);
    String str=scn.nextLine();

    countSubstring(str);
}

```

100

111

111 | 111 | 1