A6-Q2

Due on 2019-09-14, 23:59 IST

In a string, a "run" is a substring with consisting of consecutive occurrences of the same character. For example, the string "mississippi" contains the following runs - "ss", "ss" and "pp".

In this question, given a string, you have to output the length of the longest run in the string.

Input
-----
A string, having length at most 100. The string is guaranteed to have at least one run.

Output
------
The length of the longest run in the string.

Sample Input
-------------
abbaacccc

Sample Output
-------------
4

Sample Test Cases

<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>pqrsssspppqppttttt</td>
<td>5</td>
</tr>
<tr>
<td>Test Case 1</td>
<td></td>
</tr>
<tr>
<td>Assignment</td>
<td>Test Case</td>
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<tr>
<td>------------</td>
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</tr>
<tr>
<td>4</td>
<td>2</td>
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<tr>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>5</td>
</tr>
</tbody>
</table>

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Sample solutions (Provided by instructor)
```
#include <stdio.h>

/* Find maximum run length in a string */
int max_run_length(char s[])
{
    int maxlen=0;
    int curr_run=0;
    char curr_char;
    int i=0;

    for(i=0; s[i]!='$0'; i++){
        /* Calculate the length of the current run */
        curr_char = s[i];
        curr_run = 0;
        while(s[i] == curr_char && s[i] != '$0'){
            i++;
            curr_run++;
        }
        /* If the current run is longer than maxrun, reset */
        if(curr_run > maxlen){
            maxlen = curr_run;
        }
    }
    return maxlen;
}

int main()
{
    char s[100];
    int result;
    scanf("%s",s);
    result = max_run_length(s);
    printf("%d\n", result);
    return 0;
}
```