Marwadi University	Marwadi University	
	Faculty of Technology	
	Department of Information and Communication Technology	
Sem: 5	Name :Pushti Depani	
Day: 30	Date: 16/11/2022	Enrollment No: 92000133018

CP Club 365Days Challenge

Date – 16/11/2022 <u>Programming language</u> – only C language

Problem Statement

Code must be in C language only

https://www.hackerrank.com/challenges/alternating-characters/problem?isFullScreen=true

Your Code:

```
#include <assert.h>
#include <ctype.h>
#include <limits.h>
#include <math.h>
#include <stdbool.h>
#include <stddef.h>
#include <stdint.h>
#include <stdio.h>
#include <stdlib.h>
#include <string.h>
char* readline();
char* ltrim(char*);
char* rtrim(char*);
int parse_int(char*);
/*
 * Complete the 'alternatingCharacters' function below.
 * The function is expected to return an INTEGER.
 * The function accepts STRING s as parameter.
```



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```
*/
int alternatingCharacters(char* s) {
    int a = 0;
        for (int i = 0; s[i]!='\0'; i++)
        {
            if (s[i - 1] == s[i])
            {
                a += 1;
            }
        }
        return a;
}
int main()
{
    FILE* fptr = fopen(getenv("OUTPUT_PATH"), "w");
    int q = parse_int(ltrim(rtrim(readline())));
    for (int q_itr = 0; q_itr < q; q_itr++) {</pre>
        char* s = readline();
        int result = alternatingCharacters(s);
        fprintf(fptr, "%d\n", result);
    }
    fclose(fptr);
    return 0;
}
char* readline() {
    size t alloc length = 1024;
    size t data length = 0;
```



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```
char* data = malloc(alloc length);
while (true) {
    char* cursor = data + data_length;
    char* line = fgets(cursor, alloc length - data length, stdin);
    if (!line) {
        break;
    }
    data_length += strlen(cursor);
   if (data length < alloc length - 1 || data[data_length - 1] == '\n') {</pre>
        break;
    }
    alloc_length <<= 1;</pre>
    data = realloc(data, alloc_length);
    if (!data) {
        data = '\0';
        break;
    }
}
if (data[data_length - 1] == '\n') {
    data[data_length - 1] = '\0';
    data = realloc(data, data length);
    if (!data) {
        data = '\0';
    }
} else {
    data = realloc(data, data_length + 1);
    if (!data) {
        data = '\0';
```



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```
} else {
            data[data_length] = '\0';
        }
    }
    return data;
}
char* ltrim(char* str) {
    if (!str) {
        return '\0';
    }
    if (!*str) {
        return str;
    }
    while (*str != '\0' && isspace(*str)) {
        str++;
    }
    return str;
}
char* rtrim(char* str) {
    if (!str) {
        return '\0';
    }
    if (!*str) {
        return str;
    }
    char* end = str + strlen(str) - 1;
    while (end >= str && isspace(*end)) {
        end--;
    }
    *(end + 1) = ' \ 0';
```



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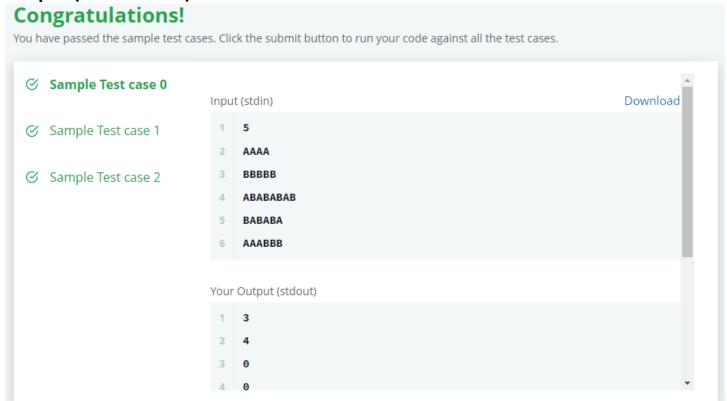
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```
return str;
}
int parse_int(char* str) {
    char* endptr;
    int value = strtol(str, &endptr, 10);

    if (endptr == str || *endptr != '\0') {
        exit(EXIT_FAILURE);
    }

    return value;
}
```

Output (Screen Shot):



Understanding about problem:

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In this program we have to find that any of the characters should not be adjacent to each other and we have to count the number of repeated characters. So we have to find that if we have string 'aaab' then there are 2 'aa' which are same so the output will be 2.

Note: If you can't understand the problem, feel free to contact us and we'll help you. Please don't copy and paste from anywhere.

ALL THE BEST

Team CP Club