Marwadi University	Marwadi University	
	Faculty of Technology	
	Department of Information and Communication Technology	
Sem: 5	Name :Pushti Depani	
Day : 27	Date: 13/11/2022	Enrollment No: 92000133018

# **CP Club 365Days Challenge**

Date – 13/11/2022 <u>Programming language</u> – only C language

## **Problem Statement**

# Code must be in C language only

https://www.hackerrank.com/challenges/mars-exploration/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();
/*
 * Complete the 'marsExploration' function below.
 * The function is expected to return an INTEGER.
 * The function accepts STRING s as parameter.
 */
int marsExploration(char* s) {
```



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```
int a;
    // for(int i=0;i<s.size();i+=3)</pre>
    for(int i=0;s[i]!='\0';i+=3) {
        if(s[i]!='S') {
            a++;
        }
        if(s[i+1]!='0') {
            a++;
        if(s[i+2]!='S') {
            a++;
        }
    return a;
}
int main()
{
    FILE* fptr = fopen(getenv("OUTPUT PATH"), "w");
    char* s = readline();
    int result = marsExploration(s);
    fprintf(fptr, "%d\n", result);
    fclose(fptr);
    return 0;
}
char* readline() {
    size t alloc length = 1024;
    size t data length = 0;
    char* data = malloc(alloc_length);
```



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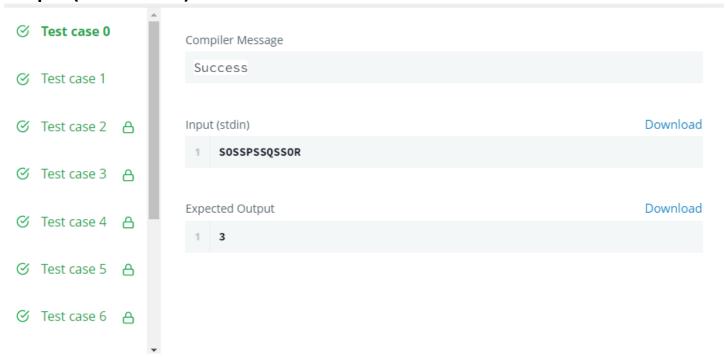
```
while (true) {
    char* cursor = data + data_length;
    char* line = fgets(cursor, alloc length - data length, stdin);
    if (!line) {
        break;
    }
    data_length += strlen(cursor);
    if (data_length < alloc length - 1 || data[data_length - 1] == '\n') {</pre>
        break;
    }
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

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```
data[data_length] = '\0';
}

return data;
}
```

### **Output (Screen Shot):**



### **Understanding about problem:**

Here in this program there is a message like 'SOSSOS' this type of message shoud be transferred. So in this it is said we have to take modulo 3 so after getting the length of the string we have to do modulo 3 and find the num of times 'SOS' is repeated. For ex. String passed is 'SOSSESSRS' over here length of string is 9 so there will be 3 'SOS' messages which will be sent. This we can say by doing the modulo i.e., 9/3=3. So the output will be 3.

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.

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## **ALL THE BEST**

Team CP Club