

July 2023 CSE 102

Online 2

Submission Guidelines

Solve the problem and rename the file as <your_id>.c (Example: student with ID 2205999 will rename it as 2205999.c). Then upload the .c file in Moodle.

Problem

Write a C program that performs two tasks on a given string:

1. Implement a function 'count_characters' that takes a string as input and counts the occurrences of each character. Display the count for each character present in the string.
2. Implement another function 'replace_character' that takes the same string and two characters as input. Replace all occurrences of the first character with the second character in the string. Display the modified string.

Ensure that you use separate functions for counting characters and replacing characters. Also, use proper parameter passing and return types.

Input

A string str of length L ($1 \leq L \leq 1000$).

Output

For the character counter, display the count for each character. For the character replacer, display the modified string after replacement.

Test Case

Input	Output
programming is fun r x	'p': 1 'r': 2 'o': 1 'g': 2 'a': 1 'm': 2 'i': 2 'n': 2 ' ': 2 's': 1 'f': 1 'u': 1 Modified String: pxogxamming is fun
hello e a	'h': 1 'e': 1 'l': 2 'o': 1 Modified String: hallo