Q15. Input a string from the user. Count occurrences (case insensitive) of each alphabet in the string.

#include <stdio.h>

#include <ctype.h>

#define ALPHABET\_SIZE 26

int main() {

char str[1000];

int count[ALPHABET\_SIZE] = {0};

printf("Input a string: ");

fgets(str, sizeof(str), stdin);

// Normalize the string to lowercase and count occurrences

for (int i = 0; str[i] != '\0'; i++) {

char ch = tolower(str[i]);

if (ch >= 'a' && ch <= 'z') {

count[ch - 'a']++;

}

}

// Print occurrences of each alphabet letter

printf("Output:\n");

for (int i = 0; i < ALPHABET\_SIZE; i++) {

if (count[i] > 0) {

printf("%c : %d\n", 'A' + i, count[i]);

}

}

return 0;

}