#include <stdio.h>

#include <string.h>

#include <ctype.h>

void displayWord(char word[], int guessed[]) {

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

if (guessed[i])

printf("%c ", word[i]);

else

printf("\_ ");

}

printf("\n");

}

int main() {

char word[] = "PROGRAM"; // The word to guess

int guessed[strlen(word)]; // Array to track guessed letters

int remainingChances = 3; // Number of allowed wrong guesses

int correctGuesses = 0; // Number of correctly guessed letters

// Initialize guessed array to 0 (none of the letters are guessed initially)

for (int i = 0; i < strlen(word); i++) {

guessed[i] = 0;

}

printf("Welcome to Hangman!\n");

printf("You have %d chances to guess the word.\n\n", remainingChances);

while (remainingChances > 0 && correctGuesses < strlen(word)) {

printf("Word: ");

displayWord(word, guessed);

printf("Guess a letter: ");

char guess;

scanf(" %c", &guess);

guess = toupper(guess); // Convert guess to uppercase for case insensitivity

int found = 0;

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

if (word[i] == guess && !guessed[i]) {

guessed[i] = 1;

correctGuesses++;

found = 1;

}

}

if (found) {

printf("Good guess!\n");

} else {

remainingChances--;

printf("Wrong guess! Remaining chances: %d\n", remainingChances);

}

}

if (correctGuesses == strlen(word)) {

printf("Congratulations! You guessed the word: %s\n", word);

} else {

printf("Out of chances! The word was: %s\n", word);

printf("The man is hanged!\n");

}

return 0;

}