Assignment 5:

#include <stdio.h>

#include <string.h>

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

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

if (guessed[i]) {

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

} else {

printf("\_ ");

}

}

printf("\n");

}

int main() {

// The word to guess (you can change it)

char word[] = "COMPUTER";

int wordLength = strlen(word);

int guessed[wordLength];

int wrongGuesses = 0, maxGuesses = 3;

// Initialize guessed array to 0 (no letters guessed)

for (int i = 0; i < wordLength; i++) {

guessed[i] = 0;

}

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

printf("You have %d chances to save the man.\n", maxGuesses);

while (wrongGuesses < maxGuesses) {

char guess;

int correct = 0;

// Display current state of the word

printf("\nWord: ");

displayWord(word, guessed);

// Take user input

printf("Enter your guess (a single letter): ");

scanf(" %c", &guess);

guess = toupper(guess); // Convert to uppercase

// Check if the guess is correct

for (int i = 0; i < wordLength; i++) {

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

guessed[i] = 1;

correct = 1;

}

}

// If the guess was incorrect

if (!correct) {

wrongGuesses++;

printf("Wrong guess! You have %d chances left.\n", maxGuesses - wrongGuesses);

}

// Check if the player has guessed the entire word

int allGuessed = 1;

for (int i = 0; i < wordLength; i++) {

if (!guessed[i]) {

allGuessed = 0;

break;

}

}

if (allGuessed) {

printf("\nCongratulations! You've saved the man.\n");

printf("The word was: %s\n", word);

return 0;

}

}

// If the player loses

printf("\nGame Over! The man has been hanged.\n");

printf("The word was: %s\n", word);

return 0;

}

Output:

