

CSCD240

HW 1

You will create the game of Hangman. The game is played in the following fashion:

Your program starts, player one enters their name (single name) and then player one enters a single word for the other player to guess. (There will be no spaces in the word)

Player 2 then enters their name (single name). Player 2 has a maximum of 7 tries to guess the word. If player 2 guesses the word in 7 or less tries, a message of congratulations is displayed. If the word is not guessed after 7 tries, a losing message is displayed along with what the correct word was.

The option to play the game again is then given (y/n)

Specifications:

- An introduction should be given that specifies the rules of the game.
- Player 1 enters their name
- Player 1 enters a single word (the word to be guessed)
- Player 2 enters their name
- The program displays a message telling how many letters are in the word.
- Dashes or underlines will be used to represent the number of characters in the word.
- As player 2 makes correct guesses, the dashes of the word will be replaced by the correctly guessed letters. For example, if "pepperoni" is the word to guess, this is what should be displayed:

```
Your word contains 9 letters.
```

```
- - - - -
```

```
Available Letters: abcdefghijklmnopqrstuvwxyz
```

```
Enter a letter: p
```

```
p - p p - - - - -
```

```
Available Letters: abcdefghijklmno qrstuvwxyz
```

```
Enter a letter: a
```

```
Incorrect guess! You have 6 more tries!
```

```
p - p p - - - - -
```

```
Available Letters:  bcdefghijklmno qrstuvwxyz
```

```
Enter a letter: e
```

```
p e p p e - - - -
```

```
Available Letters:  bcd fghijklmno qrstuvwxyz
```

```
Enter a letter: t
```

```
Incorrect guess! You have 5 more tries!
```

p e p p e - - - -

Available Letters: bcd fghijklmno qrs uvwxyz
Enter a letter: i

p e p p e - - - i

Available Letters: bcd fgh jklmno qrs uvwxyz
Enter a letter: o
p e p p e - o - i

Available Letters: bcd fgh jklmn qrs uvwxyz
Enter a letter: r
p e p p e r o - i

Available Letters: bcd fgh jklmn q s uvwxyz
Enter a letter: n
p e p p e r o n i

Contratulations! You guessed the word!

- As shown above, if the player misses a letter, tell her/him the guess was incorrect.
- Show how many guesses remain.
- Show the letters that are still available.
- Screen user input to make sure only letters are entered, and y/n are entered
- Ensure player 2 does not select a letter that has already been chosen.
- The user will enter both upper and lower case letters what will be displayed is lower case letters.
- You may only use strlen from string.h
- You will use one dimensional arrays of characters (100 characters MAX)
 - One for player 1 name
 - One for player 2 name
 - One for the word to be guessed
 - One for the characters to be guessed (only need 27)
- Make sure your solution is modular (specific methods for specific tasks)
 - You will use a 3 file format
 - cscd240hw1Tester.c
 - cscd240hw1.h
 - cscd240hw1.c

Extra Credit

- Build a hanged person as the player guesses incorrectly. (You must meet all the specifications before you attempt the extra credit)
- You use pointer arithmetic throughout the program. The only time you can use the [] is at declaration time.

To Turn In

Zip file containing:

- All files necessary to compile your code

- A makefile
- At least 2 output runs that show a the word guessed in 7 or fewer tries, the word not guessed in 7 or fewer tries