"The game of hangman"
(hangman)

You are expected to demonstrate a working C program according to the description below. Your program should be uploaded (via Blackboard) before the deadline. You must use the file name specified in the problem description below. Late submissions will not be corrected and will receive zero credit, so even if your program is not running correctly, you should submit your "best attempt".

Program description

In the game of hangman, one player picks a word, and the other player has to try to guess what the word is by selecting one letter at a time. If they select a correct letter, all occurrences of the letter are shown. If no letter shows up, they use up one of their turns. The player is allowed to use no more than 10 incorrect turns to guess what the word is. They can guess the word at any time, but if they guess incorrectly, they lose a turn.

To simulate this game on a computer, the unknown word is stored in a simple text file (which only stores one word). The computer will display the word but with asterisks in place of letters. This lets the player know how many letters are in the word. The player is then asked to guess one of the 26 letters, or to guess what the word is. If they choose a letter, an updated version of the word is shown with that letter filled in, and their number of remaining turns remains fixed. If they make an incorrect guess, they lose a turn.

The program execution should look like the following (user input in **bold** text):

```
Give the filename with the unknown word:  unknown1.txt

Ready to Start!
The word is:   ********

Number of turns remaining:  10
Would you like to guess the word [w] or guess a letter [l]:  l
What letter have you chosen?:  a

*********************************************
Good choice!
The word is:   *****a**
Number of turns remaining:  10
Would you like to guess the word [w] or guess a letter [l]:  l
What letter have you chosen?:  o

*********************************************
Bad Choice
The word is:   *****a**
Number of turns remaining:  9
Would you like to guess the word [w] or guess a letter [l]:  l
What letter have you chosen?:  e

*********************************************
Good Choice!
The word is:   e*e**a**
Number of turns remaining:  9
Would you like to guess the word [w] or guess a letter [l]:  l
What letter have you chosen?:  t


etc...
```

```
*********************************************
Good Choice!
The word is:   ele**ant

Number of turns remaining:  3
Would you like to guess the word [w] or guess a letter [l]:  w
What is your guessed word?:  elephant

Congratulations!


*********************************************
Do you want to play again [y/n]:
```

Your file should be called `hangman.c`. The files `unknown1.txt` and `unknown2.txt` can be used as sample input words, or you can make up your own.

Note: To start with (e.g. in the first lab session), you can simply write the program based on a fixed "unknown word"; this avoids the file reading aspect of the problem. This aspect can then be filled in later (e.g. in the second lab session) once the program is working.

Deliverables

File name	Description
`hangman.c`	C source code as described above

YOUR PROGRAMS WILL NOT BE MARKED UNLESS THEY HAVE THE CORRECT NAMES

STUDENTS MUST WORK INDEPENDENTLY. PROGRAMS WILL BE EXAMINED FOR EVIDENCE OF COPYING. COPYING OR ALLOWING YOUR WORK TO BE COPIED WILL RESULT IN A GRADE OF "NG" BEING ALLOCATED FOR THE ASSIGNMENT.