CS 112 Midterm Project I

Due October 9,2015 11:59 pm

Program Goal: to write a two player guessing game, e.g.

At this point, we all know the “guess a number game”. Here we will expand this to include a two player version. In all cases, the goal of the game is to guess a (set but unknown to the players) number between 1 and 10. The game ends when the number is guessed.

**Important dates:**

* 6 Oct 2015: Post (in your own little assignment discussion section!) very rough pseudo code outlining the order of the major tasks, and then one try at refining these major tasks.
* 9 Oct 2015: Post your code, that is, the \*.py file and a page describing changes you made to the basic plan between 10/6/15 and 10/9/15
* File naming: Please name your .py file with your name and the grade range you believe your code to achieve. E.g. veilleuxBcode.py

**For minimal credit:**

Pass in your pseudo code before you write your program. Pass in a program with no syntax errors. This means write a few lines of code, make sure you can run it, add a few more lines, run it, etc. Code that doesn’t run does not get a passing grade. Even a running ‘hello world’ will get you a passing grade.

**For credit in the C-/ C/C+ range:**

Implement the program goal as mentioned above, for a single player. This will include:

* 1. Introduce the game and rules briefly
  2. Run this simple game with only one player and one game round. This will involve
     1. The programmer (you) will set the correct answer in the code
     2. The player will be prompted for, and enter, a guess
     3. The program will tell the player whether she has won, or is too high or too low
  3. Let the player play until they win, or 6 times, or until they give up, whichever happens first.

**For more credit, in the B-/B/B+ range:**

* 1. Do everything listed in the C program, but instead
  2. Have two players who take alternate turns guessing the number.
  3. Have each player enter her name
  4. Let the players play until the number has been guessed, one player gives up or the players have taken a total of 6 turns (combined, so 3 plays each), whichever comes first
  5. Congratulate the winner by name, or, if no winner, tell both players, by name, that they are losers.

**For more credit, in the A-/A range:**

* 1. Do everything listed in the C and B programs (B program supersedes), but also
  2. The program will pick a random number between 1 and 10 using a random function
  3. Let the players play three games total (guess three randomly chosen numbers, rules as above)
  4. Add an extra congratulations to the player who wins the most games (e.g. 2/3) if appropriate

**Extra credit**:

Find a way to tell the users what numbers have already been guessed so they don’t guess a number a second time.