Fundamentals of Programming for Business

Lab Assignment 2

Due Date: Thursday, Mar. 4th, 2021 by 11:59 pm

Important: *Submit your lab assignment as a single file via Canvas named LastName_FirstName_Lab_LabNumber.zip (e.g., Smith_John_Lab_02.zip). No late submissions will be accepted.*

Overview

In this lab, you will implement a game called "Guess the Number" using both decision and repetition structures. Program will generate a random number for the user to guess. The computer will tell the user if each guess is high or low. The user wins if they can guess the number correctly.

General requirements:

1. In the beginning, prompt the users to write their names and greet them with "Welcome" followed by their name.
2. Provide a brief description and guidance for the game.
3. Start the game and ask the user to choose a difficulty level as described below. Do not forget to explain all the difficulty levels to the user.

   Add a function that handles 3 levels of difficulty as follows:
   a. **Level 1 (easy)**: program generates a random number between 1 and 10, and it gives the user 5 chances to guess the secret number.
   b. **Level 2 (normal):** program generates a random number between 1 and 20, and it gives the user 4 chances to guess the secret number.
   c. **Level 3 (hard)**: program generates a random number between 1 and 30, and it gives the user 3 chances to guess the secret number.

4. Based on the difficulty level, generate a number and keep it secret.
5. Ask the user to enter a guess.
6. Check the guess of the user, and print a message relevant to the guess:
   a. Your guess is too low
   b. Your guess is too high
   c. Congratulations! Your guess is correct!

7. If the guess was not correct, **you must allow the user to take another guess** if possible.
8. You must have a function

In order to write this program, you will need the **randint()** function to generate a random number as follows:

```
import random

#This line of code will generate a random number between 1 and 10.

num = random.randint(1, 10)
```

Grading:

Each assignment is out of 40 points, graded on:

- Does the code work properly? If doesn't work, describe where you had problems.
- Is the code well commented and readable?
- Did you implement all the required parts?

Submission:

1. For each assignment, create a new directory on your computer, and name it: LastName_FirstName_Lab_LabNumber.zip (Ex: Smith_John_Lab_02.zip).
2. Copy all your Python scripts (the final version of your files) to your directory. You can also add a README.txt that contains information on how to run your code.
3. Zip your folder using the same name as your directory.
4. Go to the Canvas course site. Click the Assignment link for the assignment you wish to submit. You will then see a screen allowing you to submit your assignment.
5. The "Choose File" button allows you to select the file you wish to turn in.
6. Use the Submit button to submit your file for grading.
7. After using Submit, WAIT until you see a confirmation screen showing that your assignment was successfully submitted. If you close the browser window before receiving this confirmation, your submitted file may be corrupted.
8. **No files sent via email will be accepted or considered**. No other submissions, of any form other than that described in this handout, will be accepted or considered.