High Low

10/14/2022

Late **85/100** Points

Attempt 2

Review Feedback
11/17/2022

Attempt 2 Score:
85/100

View Feedback

Anonymous Grading: **no**

~~Unlimited Attempts Allowed~~
12/9/2022

Details

High Low Lab

Preparation

Online students please watch videos up to variables, loops, and conditions

Objectives

Create a program that illustrates your understanding of conditions. Create a "High-Low" game which allows the user to play a game with the computer. The game will require input, output, branching and loop behaviors.

Discussion

The game begins with the computer generating a random integer between 1 and 100. The user will guess a number, and the computer will indicate whether the guess is too high, too low, or correct. This will continue until the user has correctly guessed the computer's number.

```
I'm thinking of a number between
1 and 100. Guess a number, and I'll tell you
if you're too high, too low, or got it right.
Good luck!
1) Please enter a number
50
Too low!
2) Please enter a number
75
Too low!
3) Please enter a number
88
Too high!
4) Please enter a number
80
Too low!
5) Please enter a number
84
Too high!
6) Please enter a number
82
Too low!
7) Please enter a number
83
Correct!
It took 7 turns.
```

Hints

- You'll need some type of loop around the main program
- Generate a random number (look into the Random module)
- Get input from the user
- You'll need several comparisons of user's guess to target value
- Don't forget to give feedback to the user
- Watch for endless loops!
- Don't forget to use debug mode if you get stuck

Submission

Please submit the following on Canvas:

- Your .py file (NOT a link to your pythonanywhere page)
- A .txt file describing your algorithm (congruent with the requirements for algorithm files described in **the announcement (%24CANVAS_OBJECT_REFERENCE%24/discussion_topics/g6b4bf997b8a8e34ab09edb503b4187b4)** about algorithm files)
- If you are turning in a blackbelt version, submit your blackbelt code as a separate .py file and your blackbelt algorithm in a .txt file.

Blackbelt Challenge

Once you get the basic form working, see if you can write a program that goes the other direction. The user generates the number, and the computer tries to guess it. A sample run might look like this:

```
Please think of a number between
one and one hundred. I'll guess
your number. You tell me if I'm
too high, too low, or correct.
I guess: 50
too (h)igh, too (l)ow, or (c)orrect?
h

I guess: 25
too (h)igh, too (l)ow, or (c)orrect?
l
I guess: 37
too (h)igh, too (l)ow, or (c)orrect?
l
I guess: 43
too (h)igh, too (l)ow, or (c)orrect?
h
I guess: 40
too (h)igh, too (l)ow, or (c)orrect?
high
Sorry, I didn't understand you...
I guess: 40
too (h)igh, too (l)ow, or (c)orrect?
h
I guess: 39
too (h)igh, too (l)ow, or (c)orrect?
h

I guess: 38
too (h)igh, too (l)ow, or (c)orrect?
c
I got it! it took 7 turns.
```

Feel free to add on other blackbelt assignments, but **start with this one** if you are writing any blackbelt versions.

File Name	Size

File Name	Size	
highlow.py	481 Bytes	✓
highlowblackbelt.py	605 Bytes	✓
highlow.txt	2.18 KB	✓
highlowbl...rithm.txt	2.6 KB	✓