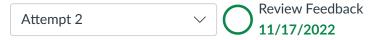
5/9/24, 8:15 PM High Low

High Low





Attempt 2 Score: 85/100 View Feedback

Anonymous Grading: no

Oliminica Attempts Anowed

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
Too low!
2) Please enter a number
75
Too low!
3) Please enter a number
Too high!
4) Please enter a number
Too low!
5) Please enter a number
Too high!
6) Please enter a number
Too low!
7) Please enter a number
83
Correct!
It took 7 turns.
```

5/9/24, 8:15 PM High Low

#### 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 <a href="mailto:the-announcement">the-announcement (%24CANVAS OBJECT REFERENCE%24/discussion topics/g6b4bf997b8a8e34ab09edb503b4187b4)</a> 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?
I guess: 25
too (h)igh, too (l)ow, or (c)orrect?
I guess: 37
too (h)igh, too (l)ow, or (c)orrect?
I guess: 43
too (h)igh, too (l)ow, or (c)orrect?
I guess: 40
too (h)igh, too (l)ow, or (c)orrect?
Sorry, I didn't understand you...
I guess: 40
too (h)igh, too (l)ow, or (c)orrect?
I guess: 39
too (h)igh, too (l)ow, or (c)orrect?
I guess: 38
too (h)igh, too (l)ow, or (c)orrect?
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

5/9/24, 8:15 PM High Low

	File Name	Size	
0	<u>highlow.py</u>	481 Bytes	•
0	highlowblackbelt.py	605 Bytes	•
	<u>highlow.txt</u>	2.18 KB	•
	highlowblrithm.txt	2.6 KB	•