Project 3: Mind Reader

June 23, 2022

Description: Esther is a new student in your class that claims that she can guess any 4-digit number that you come up with. Everyone takes turns thinking of a number and to your surprise, she guesses everybody's numbers correctly. You are worried what this might mean for the state of the word as she is able to read minds. To stump her, you want to develop a program that randomly comes up with a 4-digit number. You ask Esther to guess the number the computer is thinking as she only has a < 1% chance of guessing it. Your goal is to create a program that allows the user to guess a number and provide hints on how close they are. The code should keep running until the user no longer wishes to play. Create a function called **guessing_game** that takes a random number **num** as its parameter and plays the guessing game as below. Note: Your input should match exactly as the interaction below.

Note: The red underline values will be user input. Values that are red that are not underlined should change depending on user's input. Your code should be able to handle user input exactly as shown below as well as other test cases.

Example Interaction #1:

```
Guess the 4-digit number: 2164

Not quite the number. But you did get 2 digits correct!
These were the numbers in your input that were correct.
X X 6 4

Enter your next choice of numbers: 3564
Not quite the number. But you did get 3 digits correct!
These were the numbers in your input that were correct.
```

X 5 6 4

Enter your next choice of numbers: 1564
That’s a match!
It took you only 3 tries.

Do you want to keep playing? (Yes/No) Yes

Guess the 4–digit number: 1234

Wow! You guessed the number in just 1 try! You're lucky!

Do you want to keep playing? (Yes/No) No

Try again soon!

Example Interaction #2:
Guess the 4–digit number: 7777

Wow! You guessed the number in just 1 try! You're lucky!

Do you want to keep playing? (Yes/No) No

Try again soon!

Example Interaction #3:
Guess the 4–digit number: 7910

Not quite the number. But you did get 1 digit correct!
These were the numbers in your input that were correct.
X X X 0

Enter your next choice of numbers: 1234
None of the numbers in your guess match.

Enter your next choice of numbers: 8320
Not quite the number. But you did get 2 digits correct!
These were the numbers in your input that were correct.
8 X X 0

Enter your next choice of numbers: 8440
That’s a match!
It took you only 4 tries.

Do you want to keep playing? (Yes/No) No

Try again soon!

Link to Accept Project:

https://classroom.github.com/a/c8foLUAh