

In-lab activity chapter 5

Write a program that plays a guessing game with the user. The program should generate a random number between a minimum and a maximum value that user will enter. Then prompt the user repeatedly to guess the number. When the user gives a wrong guess then computer should hint the user if the correct answer is higher or lower than the guess. Once the user guesses it correctly, then your program should print a message indicating the number of guesses.

Requirements:

1. Must break down the problem in to smaller problem.
2. Must have minimum 3 methods
 - a. Guess method that accepts a Scanner object as its parameter.
 - b. Description method
 - c. Main method
3. The program must run as long as the user is interested. Your program will ask the user “Do you want to play again” in the main method and then call the appropriate methods.
4. Your output must match the provided output
5. You need to use the Random class to generate random numbers. To use the Random class you must do the following
 - a. Generate a Random object: `Random rand = new Random()`
 - b. Generate a random number between 0 and 9 inclusive: `int num = rand.nextInt(10)`
6. A shell has been provided for you. You can design your own program but the number of the methods that you use must be the same as the provided shell.
7. Must use printf to format double values.
8. You must include comments

Hi my name is :

I want to play a guessing game with you.

I will think of a number between min and max values entered by you
and will allow you to guess until you get it.

For each guess, I will tell you whether the
right answer is higher or lower than your guess.

Enter a min value :100

Enter the max value:500

I'm thinking of a number...

Your guess? 250

higher

Your guess? 350

higher

Your guess? 450

lower
Your guess? 400
lower
Your guess? 370
higher
Your guess? 380
lower
Your guess? 375
higher
Your guess? 377
higher
Your guess? 378
You got it right in 9 guesses

Do you want to play again? yes

Enter a min value :50
Enter the max value:100
I'm thinking of a number...
Your guess? 75
higher
Your guess? 85
You got it right in 2 guesses

Do you want to play again? yes

Enter a min value :1
Enter the max value:100
I'm thinking of a number...
Your guess? 50
lower
Your guess? 25
lower
Your guess? 15
lower
Your guess? 7
higher
Your guess? 10
higher
Your guess? 12
You got it right in 6 guesses

Do you want to play again? no

Overall results:
total games = 3

<p>total guesses = 17 guesses/game = 5.67 max guesses = 9</p>
