CS161: Introduction to Computer Science
Lab Assignment 5

In today’s lab, you will practice using conditionals by implementing a guessing game. The computer will pick a number between 1 and 50 (inclusive) and the user gets 10 chances to guess.

You should begin by creating a BlueJ project called lab5. Inside, create a Java class named SecretNumber.

1 Rules of the Game

To begin the game, you should pick a random integer between 1 and 50 (inclusive). The user gets 10 chances to guess the number. Each time the user guesses, you should print out a message telling them how close they are to the correct number (see the table below), whether they should guess higher or lower, and the remaining number of guesses.

<table>
<thead>
<tr>
<th>Distance Away</th>
<th>Message to Print</th>
</tr>
</thead>
<tbody>
<tr>
<td>within 1</td>
<td>“scalding hot”</td>
</tr>
<tr>
<td>within 2</td>
<td>“extremely warm”</td>
</tr>
<tr>
<td>within 3</td>
<td>“very warm”</td>
</tr>
<tr>
<td>within 5</td>
<td>“warm”</td>
</tr>
<tr>
<td>within 8</td>
<td>“cold”</td>
</tr>
<tr>
<td>within 13</td>
<td>“very cold”</td>
</tr>
<tr>
<td>within 20</td>
<td>“extremely cold”</td>
</tr>
<tr>
<td>more than 20</td>
<td>“icy freezing miserable cold”</td>
</tr>
</tbody>
</table>

You should use methods so that your main() method does not become too long. For example, you can have a method that controls a single round of the game and a method that calls the single round method 10 times, etc. Below is an example of me playing the game:

2 Submitting your lab assignment

Your lab5 folder should have your SecretNumber class inside. Rename your folder before zipping. Submit your zipped folder to Canvas.
Welcome to the Guessing Game!
I picked a number between 1 and 50.
You have 10 chances to try and guess.

Enter a guess: 3
Your guess is icy freezing miserable cold. Try a little higher.
You have 9 guesses left!

Enter a guess: 40
Your guess is cold. Try a little higher.
You have 8 guesses left!

Enter a guess: 50
Your guess is extremely warm. Try a little lower.
You have 7 guesses left!

Enter a guess: 47
Your guess is scalding hot. Try a little higher.
You have 6 guesses left!

Enter a guess: 48
You win!