Homework Turnin

Name:	Xuqing Wu
Account:	xw88 (xw88@uw.edu)
Student ID:	1933202
Section:	AS
Course:	CSE 142 19au
Assignment:	a5
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Turnin Successful!

The following file(s) were received:

GuessingGame.java (3198 bytes, sha256: b151b8c4c1c337be14b7c0b6be6ff1a

```
1.  // Xuqing Wu
2.  // 10/27/2019
3.  // CSE142
4.  // TA: Ethan M Knutson
5.  // Assignment #5
6.  //
7.  // This program will show an guessing game and calculate statistics.
8.
9.  import java.util.*;  //to use Scanner and Random
10.
11. public class GuessingGame{
12.    public static final int total= 100;  //control range of random integers
13.
14.    public static void main(String[] args){
15.       Scanner console = new Scanner(System.in);
16.       Random rand = new Random();
17.       intro();
18.       int guessTime = guess(console, rand);
19.       int timeMin = guessTime;
20.       int gameTime = 1;
21.       String choice = choice(console);
22.
23.       //judge whether response given by users means play again or not
24.       while(choice.toUpperCase().charAt(0)=='Y'){
25.          gameTime++;
26.          int moreTime = guess(console, rand);
27.          timeMin = Math.min(timeMin, moreTime);
28.          guessTime += moreTime;
29.          choice = choice(console);
30.       }
31.       print(gameTime, guessTime, timeMin);
32.    }
33.
34.    //print the introduction in the form of a haiku
35.    public static void intro(){
36.       System.out.println("Let's have a guess now");
37.       System.out.println("It is not very difficult");
38.       System.out.println("Are you ready guys?");
```

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39.         System.out.println();
40.      }
41.
42.      //process of guessing and return the value of total guessing times
43.      //Scanner console - to get the guesses from users
44.      //Random rand - to generate an integer which is the answer
45.      public static int guess(Scanner console, Random rand){
46.         System.out.println("I'm thinking of a number between 1 and " + total + " ...");
47.         int answer = rand.nextInt(total)+1;
48.         System.out.print("Your guess? ");
49.         int guess = console.nextInt();
50.         int time = 1;
51.         while(guess!=answer){
52.            time++;
53.            if(guess>answer){
54.               System.out.println("It's lower.");
55.            }
56.            else{
57.               System.out.println("It's higher.");
58.            }
59.            System.out.print("Your guess? ");
60.            guess = console.nextInt();
61.         }
62.         String lastWord;
63.         if(time == 1){
64.            lastWord = " guess!";
65.         }
66.         else{
67.            lastWord = " guesses!";
68.         }
69.         System.out.println("You got it right in "+ time + lastWord);
70.         return time;
71.      }
72.
73.      //use Scanner to get the response from user and return response
74.      //Scanner console - get the choice from user whether to play again
75.      public static String choice(Scanner console){
76.         System.out.print("Do you want to play again? ");
77.         String choice = console.next();
78.         System.out.println();
79.         return choice;
80.      }
81.
82.      //print the statistics of the game
83.      //gameTime - the total guessing games user played
84.      //guessTime - the total guessing times of all games
85.      //timeMin - the minimum amount of guesses
86.      public static void print(int gameTime, int guessTime, int timeMin){
87.         System.out.println("Overall results:");
88.         System.out.println("Total games   = " + gameTime);
89.         System.out.println("Total guesses = " + guessTime);
90.         System.out.print("Guesses/game  = ");
91.         double average = guessTime / gameTime;
92.         System.out.printf("%.1f", average);
93.         System.out.println();
94.         System.out.println("Best game     = " + timeMin);
95.      }
96.   }
```