**CST-105: Exercise 3**

The following exercise assesses your ability to do the following:

* Design a logical solution using control structures.
* Use relational and logical operators in a programming solution
* Use selection structures in a programming solution
* Use repetition structures in a programming solution.

1. Review the rubric for this assignment before beginning work. Be sure you are familiar with the criteria for successful completion. The rubric link can be found in the digital classroom under the assignment.
2. Design a flowchart for the following program:  
   Write a "guessing game" program that generates a random integer between 1 and 10000, inclusive. The program should prompt the user to enter a guess. For each guess, the program will output ‘HIGHER’ if the user's guess is lower than the target, ‘LOWER’ if the user's guess is higher than the target, or ‘WINNER’ if the user guesses the target. Each time the program prompts the user for a new guess, it should calculate and display the eligible range of values.
3. Write a Java program that implements your solution. Use the logic in your flowchart as a guide.
4. Make a video of your project. In your video, trace the logic in your flowchart first, then discuss your code, and finally, run your program. Your video should not exceed 4 minutes.
5. Submit the following items in the digital classroom:
6. Your flowchart (a .png file)
7. A text file (.txt) that contains
   * A link to your video
   * The text from your program (the .java file you wrote)

Sample output:  
  
