**CIS163 Lab 2**

**Partners, Debugging, JUnits**

**Purpose for today’s Lab:**

**Get to know your partner (working style, communication skills, etc.) and getting a good start on project 1.**

**Preparation:**

Have completed lab 1 from last week

Attended class and stayed up to date with class material

**Objectives** (after completing the lab you will be able to do)

* Work with your partner in an effective way
* Use the Eclipse IntelliJ Debugger to help with your projects
* Create Junit test cases to demonstrate your project is working correctly

**Activities:**  *(Bring your own laptop if you wish to lab; be sure to have IntelliJ installed and working.)*

1. Using IntelliJ open the Lock and DriverLock files inside IntelliJ (Found in Bb, week 1)
   * Watch the instructor demonstrate how to use the debugger and create JUnits.
   * Attempt to follow along
   * Up to 30 mins for steps 1 and 2
2. Close this project that contains the Lock and DriverLock files, and open the IntelliJ project where your project 1 files are located.
   * These are the files: GeoCountDownTimer.java, TestGeoCountDownTimer.java
3. Create setters and getters for project 1.
4. Attempt to write **more** Junit test cases for the following methods:

* public GeoCountDownTimer(String geoDate) A constructor that accepts a string as a parameter with the following format: “5/10/2019” where 5 indicates the month, 10 indicates the day, and 2019 indicates the year. You can assume the input has no errors (i.e., a valid set of numbers) contained within.
* public boolean equals (Object other) A method that returns true if “this” GeoCountDownTimer object is exactly the same as the other object (Note: you must cast the other object as a GeoCountDownTimer object).
* public int compareTo(GeoCountDownTimer other) A method that returns 1 if “this” GeoCountDownTimer object is greater than the other GeoCountDownTimer object; returns -1 if the “this” GeoCountDownTimer object is less than the other GeoCountDownTimer; returns 0 if the “this” GeoCountDownTimer object is equal to the other GeoCountDownTimer object. For example: “1/20/2010” is less than 12/31/2011.

1. **Stop here and get the instructor’s approval before moving on. (Key step)**
   * **Attempt to write the code for the above methods.**
2. If you have completed the previous steps, then attempt to write Junit test cases for the following methods:

* public void save(String fileName)A method that saves the “this” GeoCountDownTimer to a file; use the parameter filename for the name of the file.
* public void load(String fileName)A method that loads the “this” GeoCountDownTimer object from a file; use the parameter filename for the name of the file.

1. **Stop here and get instructor’s approval before moving on.**
2. Attempt to write JUnits for the rest of the methods in project 1.