

## **CS583: Object-Oriented Testing**

### **Assignment 4**

#### **CoffeeMaker**

**Points:** 10

**Due:** 10/17/2017

**Objective:** The student will gain experience in planning and writing tests using a testing framework.

#### **Assumptions:**

1. [This is a group assignment.](#)
2. You will be assigned to a team. You may collaborate outside your team.
3. Use Eclipse.

#### **Background:**

The project manager asks you to test code (CoffeeMaker). This application is not a critical application. This code was written by someone on the development team. You will test the code using use cases and user stories and JUnit and include your test results in a document to be emailed to the QA manager for his report.

#### **Procedure:**

1. Download CoffeeMaker.zip and unzip on your PC. Import the project into Eclipse.
2. Read and understand the User Stories and Use Cases to look for things to test and test boundaries.
3. CoffeeMaker code is complete, but you need to create and run unit tests on the following user stories:
  - 1) Add a Recipe
  - 2) Delete a Recipe
  - 3) Edit a Recipe
  - 4) Add Inventory
  - 5) Check Inventory
  - 6) Purchase Coffee
4. CoffeeMakerTest is created for you under unittests/ directory. You can create RecipeTest and InventoryTest classes as well.
5. There are 5 obvious bugs in the system.
6. Generate enough unit tests to find 2 of the 5 bugs. Once you find the bugs create a simple fix.
7. Run JUnit. Output test results by showing each test passing or failing, and list the bugs found in the Add a Recipe, Delete a Recipe, Edit a Recipe, Add Inventory, Check Inventory, and Purchase Beverage user stories in CoffeeMaker. Fix CoffeeMaker project so that all JUnit test cases pass.

#### **Optional:**

1. Find the other 3 bugs.
2. Write additional positive and negative tests.

3. Output a test report.

**Deliverables:**

1. Everyone: submit to Assignments link for Assignment **4: 4 CoffeeMaker**
  - list the bugs found in the Add a Recipe, Delete a Recipe, Edit a Recipe, Add Inventory, Check Inventory, and Purchase Beverage user stories in CoffeeMaker.
  - screenshots of fixed CoffeeMaker classes where all JUnit test cases pass.
2. Indicate your responses to the following objectives:
  - 1) what is your test plan? write a bulleted list that consists of some ideas you have on testing this code
  - 2) how many positive tests did **you** write?
  - 3) how many negative tests did **you** write?

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