Test Driven Development Exercise – 50 points
CS 355, Spring 2020
Due Tuesday, March 3rd, 2020, at 11:59 AM (just before noon)
Individual or Pairs (Two Students) only

1. Get the TDDExercise.jar file from Canvas and copy this to a safe location on your H: drive
2. Create a Java project in Eclipse or IntelliJ IDEA, and bring the Java source files from this JAR file into that project.
   a. Eclipse: Create a new Java project, import the JAR file directly into the src folder of your project.
   b. IntelliJ IDEA: Create a new Java project, extract the JAR file somewhere else, and copy the extracted code and tests folders into the src folder of your project.
3. You should see both the TicketMachine class (Java) and a TestTicketMachine class (for the JUnit tests).
4. JUnit support is available as a library that can be added through your IDE. – do the following:
   a. Eclipse: Right-click on your project, choose Java Build Path, Libraries, Add Library, JUnit, JUnit library version: JUnit4
   b. IntelliJ IDEA: Open the TestTicketMachine.java file in your project, and click on one of the @Test annotations. Click on the red bulb that appears and choose Add Junit 4 Library.
5. Work through the stories in the TicketSystem.pdf file (also available on Canvas) using the test driven development process.
   a. Add test case(s) first for each story/step, and then add code to make the test case pass.
   b. You can of course add variables as well as methods to the TicketMachine class to extend its functionality to meet a test case you specify.
6. The first story regarding creating a TicketMachine with a cost and being able to get that cost has been done for you. The two test cases were added first, which caused errors when no TestMachine code was written, then passed once TestMachine constructors and the getCost method were added.
7. Work to accomplish the Basic Stories and More Stories using test-driven development, which hopefully is not more than an hour or two of work. You do not have to complete the future stories (unless you have time and want to do so).
8. At this point, write up a short document (several paragraphs is fine) with the names of each participating student (again, must be one or two only), discussing:
   a. From this short exercise, what do you see as the benefits of test-driven development?
   b. What are your concerns regarding the possible issues or problems relating to test-driven development?
   and convert this document to PDF for submission.
9. Submit to Canvas the following two items:
   a. The document generated above, converted to PDF
   b. A JAR or ZIP file, with the two Java source files for the TicketMachine code and the TestTicketMachine test cases.
   c. Add a comment to your Canvas assignment submission with the names of each participant.