# COMP311 Assignment 2 - Debugging

**Questions for Debugging Assignment**

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## Instructions

Work in teams of at most two. Do the class work. Discuss and answer the following questions together.

## Marks

This assignment is marked out of 10.

## Team

The team (group) can be created of at most two students. Only one is required to post the answers using the associated **A2\_Debugging\_Questions\_Answers.docx** document as a template.

## Questions

1. What class is the *driver* for this slice of the application? (0.5)

**Answer:** ManifestClass

1. What major part of the application is replaced by a *stub*? Name the class(es) that make up this stub. (0.5)

**Answer:** UserPrompter Class

1. List three defects that you located in the original code and describe then as you would in a tester’s defect report. Describe **where** user is in using the system and what the **user input**. Then state how the **system response** deviated from expected output. (6).

**Answer:**

1. **Where**:

**User input**: When user tries to book a ticket for business class as an Employee.

**System response:** User is getting 50% discount while booking a ticket for business class as an Employee.

**Testing Output:**

Text

Description automatically generated

**Problem in Code:**

* **File:** SeatReserver.java
* **Method:** sellTicket()
* **Issue:** Condition is not present to verify the class of the ticket before calculating the price. (Highlighted the code)

Graphical user interface, text, application

Description automatically generated

1. **Where**:

**User input**: When user tries check the reserved and available seats.

**System response:** User is not able to see the reserved seats with passenger name and details as all the seats are showing available even after booking a seat.

**Testing Output:**

Text

Description automatically generated

**Problem in Code:**

* **File:** SeatReserver.java
* **Method:** sellTicket()
* **Issue:** Method is not called to print already reserved seats.

**Text

Description automatically generated**

1. **Where**:

**User input**: When user tries to book a ticket for business class as an Employee.

**System response:** User is getting 50% discount while booking a ticket for business class as an Employee.

1. Briefly define the term **Step in, Step out, Step over** and **Breakpoint**: (2)

**Answer:**

* **Breakpoint**: It is used to intentionally stop the code from getting executed which is useful when debugging.
* **Step in**: It is used to execute code one statement at a time and jump into subroutine/class.
* **Step out**: It is the same as step-in but used to execute codes that contain a call to another procedure. It means run until next equivalent “return” and jumps back to driver class.
* **Step Over**: Jump over subroutine/class executing next action.

1. Give the Screenshots for the import of jar file into the java IDE, Debug mode and fix of no error. (1)

**Answer:**

**Imported jar file in JAVA IDE:  
 Graphical user interface, text, application

Description automatically generated**

**Debug Mode in JAVA IDE:**

**Graphical user interface, text, application

Description automatically generated**

**Fixed 1st Error:**

* **Solution:** Added the condition to verify the class of the ticket before calculating the price of the ticket.

**Graphical user interface, text, application, email

Description automatically generated**

**Fixed 2nd Error:**

* **Solution:** Called method to print reserved seats along with available seats. (Highlighted text)

Text

Description automatically generated with low confidence