Bugs and Smells Document

EECS2311-X-Team 1 Take Home Assignment Combination

Group Members

* Vikramjeet Singh
* Jaideep Singh
* Dexter Eromosele
* Samuel Orekoya
* Joseph Ajeigbe (219918663
* Muhammed Abou-Hantash

List of fully implemented user stories with GUI and Unit tests

|  |  |  |
| --- | --- | --- |
|  | User Story | Developer |
| 1 | View Login Page | Vikramjeet Singh |
| 2 | View Produce and Machine Listings | Dexter Eromosele |
| 3 | Add a produce/machine listing | Dexter Eromosele |
| 4 | Update a new produce/machine listing | Jaideep Singh |
| 5 | Delete a produce/machine listing | Jaideep Singh |
| 6 | View Registration Page | Vikramjeet Singh |
| 7 | View Sales History Page | Joseph Ajeigbe |
| 8 | View Reviews for an item | Joseph Ajeigbe |
| 9 | Add item to cart | Muhammed Abou-Hantash |
| 10 | Increment/Decrement item quantity | Samuel Orekoya |
| 11 | View Order History | Samuel Orekoya |
| 12 | View Shopping Cart | Muhammed Abou-Hantash |

Code Review/Bug Finding User Stories

|  |  |
| --- | --- |
| Group Member | User Story Number |
| Vikramjeet Singh | 3, 4 |
| Jaideep Singh | 9, 11 |
| Dexter Eromosele | 7,10 |
| Samuel Orekoya | 8, 12 |
| Joseph Ajeigbe | 1, 2 |
| Muhammed Abou-Hantash | 5,6 |

**Code Review**

**Joseph:**

LoginView.java file for View Login Page

Code Smells:

1. No Log Out Handler Option: After user successful login, there’s no option that allows users to logout of the application and verify their data is saved.
2. Hardcoded Scene Size: The scene is hardcoded to a specific width and height (500 x 450). This may not be suitable for all screen sizes and resolutions.

CustomerLandingPage.java for Viewing Produce and Machine Listings

Code Smells:

1. Error Handling: There’s a lack of error handing for potential exception during data retrieval or UI updates.
2. Complex UI Logic: The method fetchAndDisplayItems() handles both fetching items and updating the UI layout. This makes the method lengthy and complex as splitting the logic into separate methods or classes. Having each classes/methods have specific responsibility would be the code more maintainable and cohesive.

**Dexter:**

**Bugs:**

* + Increase method in the service layer don’t handle the edge case where the order item id is invalid thereby leading to null retrieval of order item.

**Code Smells:**

* + The Increase Quantity function does not adhere to single choice responsibility principle.
  + Magic Strings are used in Sales History Page.

**Samuel:**

**1. Customer cannot edit/delete a review after adding one.**

Problem summary: When an item review is added, customer is not allowed to edit or delete the review.

Key words: Edit Review, Delete Review

**Problem description and how to reproduce it:**  
Login to the app with username = “janedoes” and password=” password456”. On the Customer Landing Page, click on the “See Reviews” button for any item. Add your own review using the rating and review boxes. Verify that the screen displays your full name, date added, rating, and review but does not display an option to edit/delete your review.

**Suggested fix:** Add Edit/Delete buttons to the Review Page

**Vikramjeet:**

**1. Item Listing not getting updated when the update button is clicked.**

Report Type: Coding, Exception Management fault  
Problem summary: A machine or a produce listing not getting updated when the update button is clicked.

Key words:  
Null-Pointer Exception, Update button Event-Handler, ItemController, ItemService

**Problem description and how to reproduce it**

Login to the app with username = “johndoes” and password=”password123”. On the Farmer Landing Page, add a new item. Scroll to the newly added item and click on the update button. The Farmers Hub-Edit item page will be displayed. Enter the new product details and click on the update button. In this case, the update button didn’t work and the event handler for update button throws a null pointer exception.

**Suggested fix**  
Event Handler for update button throws a null pointer exception under certain conditions. Handle null pointer exception.

2. **Duplicate Item is added to the list when the Update button is clicked.**

Problem summary: When an existing item in the list is updated, a duplicate item is added to the list and the existing item doesn’t get updated.

Key words:  
Duplicate item, ItemController, ItemService, Update button Event Handler

**Problem description and how to reproduce it.**

Login to the app with username = “johndoes” and password=” password123”. On the Farmer Landing Page, add a new item. Scroll to the newly added item and click on the update button. The Farmers Hub-Edit item page will be displayed. Enter the new product details and click on the update button. In this case, the Fertilizer listing didn’t get updated, and a new duplicate Fertilizer listing is added after clicking the update button.

**Suggested fix:**  
Use the “debug’ Gradle task for debugging. Fix Event Handler for update button on Farmers Hub-Edit Item page.

**Jaideep:**

**1. Null Error trying to access item.**

Null Check for item: After retrieving the item using itemService.handleGetItemById(itemId), there is no null check for item. If handleGetItemById returns null (e.g., if the item doesn't exist), attempting to access item.getQuantityAvailable() will result in a NullPointerException.

**2. Use of magic numbers in create orderItem method.**

Magic Numbers: The method uses integers directly in the code, such as when adding quantities (quantityToSet = orderItem.getQuantity() + quantity;). While not a major issue, using named constants instead of direct numbers can improve readability and maintainability.