Assignment #3

Question 1: Positive and Negative Test Situations

• FR1: Addition of Books to Catalogue

- Positive: Add a book with all mandatory fields correctly filled.
- Negative: Try to add a book with a missing mandatory field (e.g., no book title).

• FR2: Browsing Books Catalogue

- Positive: Search for books in a specific category and verify the results.
- Negative: Search with an invalid category and verify that no books are returned.

• FR3: Adding Books to Order

- Positive: Add a book from the catalogue to the order.
- Negative: Try to add a book to the order that doesn't exist in the catalogue.

• FR4: Viewing Books Order

- Positive: View the order details with books added.
- Negative: View the order when it is empty.

• FR5: Updating Book Order

- Positive: Update the number of copies of a book in the order.
- Negative: Try to update the number of copies to a negative number.

• FR6: Checkout Process

- Positive: Checkout with a valid order.
- Negative: Checkout with an empty order.

• FR7: Removal of Books from Catalogue

- Positive: Remove a book that exists in the catalogue.
- Negative: Try to remove a book that does not exist.

• FR8: Administrator Authentication

- Positive: Admin logs in with correct credentials.
- Negative: Admin logs in with incorrect credentials.

Question 2: Test Cases Based on Use Cases

Use Case 1: Administrator Sign In

Scenario Graph:

- Main Path: Administrator navigates to the admin page, enters credentials, and logs in.
- Alternative Path: Administrator enters wrong credentials, error message is shown, and they are prompted to re-enter credentials.

Set of Scenarios:

- 1. Scenario 1: Administrator enters correct credentials.
- 2. Scenario 2: Administrator enters incorrect credentials.

Abstract Test Cases:

- Test Case 1:
 - Input: Correct username and password.
 - Expected Outcome: Admin is logged in and admin operations page is displayed.
- Test Case 2:
 - Input: Incorrect username and/or password.
 - Expected Outcome: Error message "Invalid credentials" is displayed and login prompt is shown again.

Use Case 2: Administrator Sign Out

Scenario Graph:

Main Path: Administrator selects to sign out.

Set of Scenarios:

1. **Scenario 1**: Administrator signs out.

Abstract Test Cases:

Test Case 3:

- o **Input**: Admin clicks the sign out button.
- o **Expected Outcome**: Admin is logged out and login page is displayed.

Use Case 3: Add Book

Scenario Graph:

- Main Path: Admin enters all book information correctly and submits.
- Alternative Paths: Admin enters incomplete or duplicate book information, receives error messages.

Set of Scenarios:

- 1. Scenario 1: Admin enters all mandatory book details correctly.
- 2. Scenario 2: Admin enters incomplete book details.
- 3. Scenario 3: Admin enters a duplicate book id.

Abstract Test Cases:

- Test Case 4:
 - o **Input**: Complete and correct book details.
 - Expected Outcome: Book is added to the catalogue, and confirmation message is displayed.

Test Case 5:

- o **Input**: Incomplete book details (e.g., missing title).
- Expected Outcome: Error message "Title is mandatory" is displayed.

Test Case 6:

- o **Input**: Duplicate book id.
- Expected Outcome: Error message "Duplicate book id" is displayed.

Use Case 4: Browse Catalogue

Scenario Graph:

- Main Path: User specifies a category and views books.
- Alternative Paths: User does not specify a category, or no books are found.

Set of Scenarios:

- 1. **Scenario 1**: User specifies a valid category.
- 2. Scenario 2: User specifies no category.
- 3. **Scenario 3**: No books found for specified category.

Abstract Test Cases:

- Test Case 7:
 - o **Input**: Valid category.
 - Expected Outcome: List of books in the specified category is displayed.
- Test Case 8:
 - Input: No category specified.
 - o **Expected Outcome**: List of all books is displayed.
- Test Case 9:
 - Input: Invalid or empty category.
 - o **Expected Outcome**: Message "No books found" is displayed.

Use Case 5: Remove Book

Scenario Graph:

Main Path: Admin selects a book and removes it from the catalogue.

Set of Scenarios:

1. **Scenario 1**: Admin removes a book that exists in the catalogue.

Abstract Test Cases:

- Test Case 10:
 - Input: Select existing book and remove.
 - Expected Outcome: Book is removed from the catalogue, and confirmation message is displayed.

Use Case 6: Order Book

Scenario Graph:

- Main Path: Customer adds a book to their order.
- Alternative Paths: Book already in the order.

Set of Scenarios:

- 1. Scenario 1: Customer adds a new book to the order.
- 2. Scenario 2: Customer adds a book that is already in the order.

Abstract Test Cases:

- Test Case 11:
 - o **Input**: Select book and add to order.
 - Expected Outcome: Book is added to order, and order summary is updated.
- Test Case 12:
 - o **Input**: Select book already in order and add again.
 - Expected Outcome: Number of copies of the book in the order is incremented.

Use Case 7: View Books Order

Scenario Graph:

Main Path: Customer views their order.

Set of Scenarios:

1. Scenario 1: Customer views order with books added.

Abstract Test Cases:

- Test Case 13:
 - o **Input**: View order.
 - Expected Outcome: Order summary with book details is displayed.

Use Case 8: Update Books Order

Scenario Graph:

- Main Path: Customer updates the number of copies of a book in their order.
- Alternative Paths: Number of copies is set to 0 or negative.

Set of Scenarios:

- 1. **Scenario 1**: Customer updates the number of copies to a positive number.
- 2. **Scenario 2**: Customer updates the number of copies to 0 or negative.

Abstract Test Cases:

- Test Case 14:
 - o **Input**: Update number of copies to a positive number.
 - Expected Outcome: Order summary is updated with the new number of copies.
- Test Case 15:
 - o **Input**: Update number of copies to 0 or negative.
 - Expected Outcome: Book is removed from the order, and order summary is updated.

Use Case 9: Check Out

Scenario Graph:

Main Path: Customer checks out their order.

Set of Scenarios:

1. Scenario 1: Customer completes checkout.

Abstract Test Cases:

- Test Case 16:
 - Input: Select checkout.
 - Expected Outcome: Order is processed, and payment information is displayed.

Use Case 10: Select Language

Scenario Graph:

• Main Path: User selects a language.

Set of Scenarios:

1. Scenario 1: User selects a language.

Abstract Test Cases:

- Test Case 17:
 - o **Input**: Select language.
 - o **Expected Outcome**: Interface is updated to the selected language.

Question: implementation







