User Interface Design and Implementation

Revision and Implementation of Initial Screen Mock-ups:

The initial screen mock-ups from Module 7 provided a foundation for the user interface design. During implementation, several adjustments were made to enhance user experience and streamline navigation:

- Simplified Navigation: The navigation menu was revised to provide clearer options for users to browse the catalog, manage their account, and perform checkout, return, and reservation actions.
- Consistent Layout: Ensured consistency in layout across different pages for a cohesive user experience.

Design of Tests

Unit Testing:

- 1. Create Account: Verify that user account creation functionality works correctly by checking if new user accounts are added to the database with the correct information.
- 2. Account Log-In: Test the login functionality to confirm that users can successfully log in with valid credentials and are denied access with invalid ones.
- 3. Check-out
- 4. Reserve
- 5. Search Database: Test the search functionality of the database within the webpage

Test Coverage:

The unit tests cover critical functionalities such as account management, authentication, and user interactions with the system. While these tests focus primarily on individual components, they collectively ensure the reliability and correctness of the system's core features.

Integration Testing:

Integration testing will involve testing interactions between different subsystems (Presentation, Application, Data) to ensure seamless communication and functionality across the entire system. This will include testing scenarios such as:

- Verifying that user actions in the presentation layer trigger the appropriate backend processes.
- Testing database interactions to ensure data consistency and integrity.
- Checking the integration of email notification APIs for reservation alerts.



