



SOFE3650U Project Progress Report

Group 21

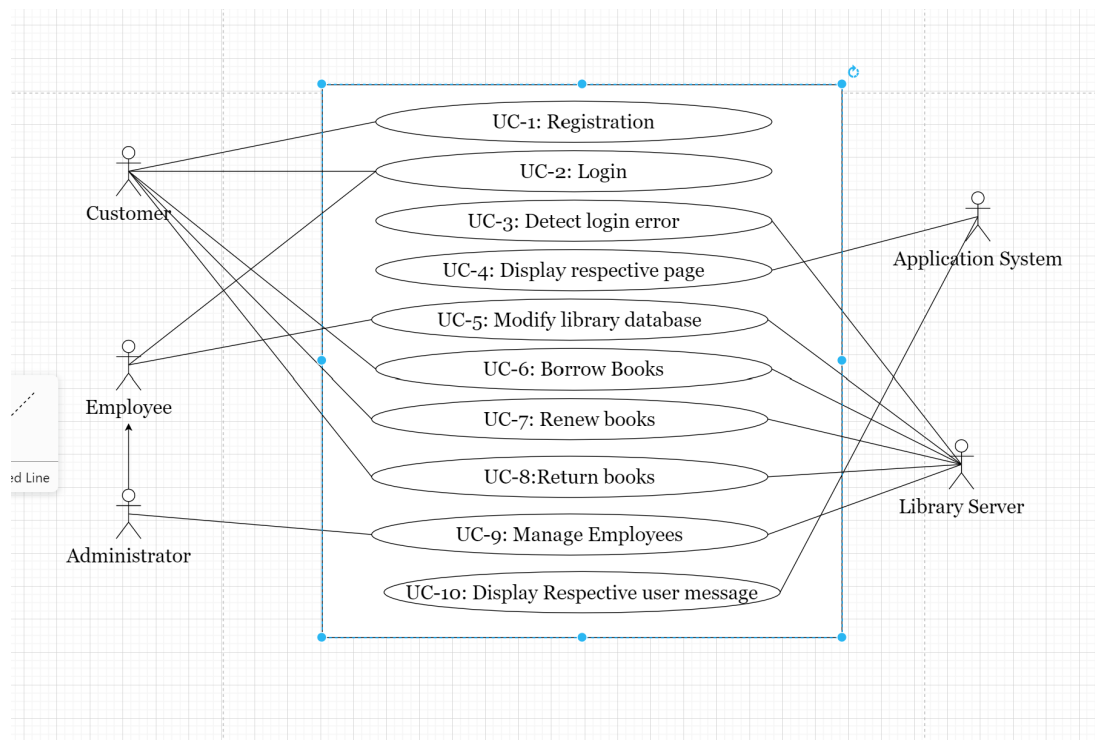
Name	Student ID
Aryan Singh	100748196
Joshua Ramnaraine	100692194
Fredrick Tetteh	100569808
Fayomi Toyin	100765921

Use Cases

Use Case	Description
UC-1:Registration	A customer is capable of registering within the library using the registration page. The customer must enter their library number, their date of birth, their gender, and etc.
UC-2: Login	Using the library systems login page, employees and customers can login to view their library information
UC-3: Detect login error	Everytime a user tries to log in with the system. The user's credentials will be confirmed with the library servers database. If credentials are matched, the user will have a successful login, otherwise the user will be redirected back to the login page until a successful login is made.
UC-4: Display respective page	Once a successful login has been made by the user within a library system, if the user is an employee they will be redirected to a page that is only visible by an employee type of user. If the user is a customer, then the user will be redirected to a page only visible by user of type customer.
UC-5: Modify library Database	An employee is capable of deleting, removing, updating books within a library. Upon these queries the library database will be accessed and the books relation will be updated accordingly.
UC-6: Borrow Books	An employee is capable of borrowing books within the library. Once a user borrows a book the library database gets updated accordingly. Furthermore the user interface is also updated displaying the book that is currently being borrowed by the user. If a user is currently borrowing more than five books, they would not be allowed to allow any more books within the library until a book has been returned.
UC-7: Renew Books	A user is also capable of renewing books within the library. Everytime a user renews a book the due date of the book gets extended by a week. Once a user clicks on renew book, the library database and the user interface gets updated accordingly.
UC-8: Return Books	A user is also capable of returning a book. Once a return has been issued library database nuggets updated accordingly and the books gets removed from the users borrowed books list, showing that the user is no longer borrowing a book.

UC-9: Manage Employees	To prevent random people registering as employees , an employee is only capable of adding an employee. The initial employee acts as an administrator which is capable of registering any employee and removing any people.
UC-10: Display respective message	Upon borrowing, returns, and renewals made by a customer on a book, a pop message is displayed by the application notifying the user if the operation performed was successful or not.

Use Case model



Quality Attributes

ID	Quality Attribute	Scenario	Associated Use Case
QA-1	Modifiability	When new books are needed to be added, or books that are not being borrowed often	UC-5

		need to removed	
QA-2	Security & Privacy	When application is initially loaded for the user, the account they create or login to should be their respected account and cannot access others information	UC-1
QA-3	Performance	When a user is accessing the system in normal operation, if they, borrow; return; renew a book, a display should appear notifying the user what they did.	UC-10
QA-4	Availability	System should be active and running in normal operation 24/7	All
QA-5	Interoperability	When a user is running the system in normal operation, the local database must interact with the system when a user wishes to search for a book, or modify the number of copies available for a book.	UC-5

Constraints

ID	Constraints
CON-1	Customers cannot login on multiple devices at the same time
CON-2	The system must be accessed through a web browser
CON-3	A customer cannot have multiple accounts with the same name and login credentials

CON-4	A reliable connection is needed whenever a customer wants to rent a book
CON-5	Customer cannot check out books that are unavailable
CON-6	System requires local database to store book