Online Library System

Team: Ankita Singh,
Krithika Balan,
Omkar Pawar

Title: Online Library System

Project Summary: A website which allows library patrons to browse, check out and return books. The library staff will be able to use the system to manage books in circulation and the customers signed up on the system

Project Requirements:

Business Requirements				
ID	**Requirement**	**Topic Area**	**Actor**	**Priority**
BR-001	Customers may borrow books for a period of three weeks.	Books	Customer	High
BR-002	Customers may renew their books at most two times.	Books	Customer	Medium
BR-003	Late fee will be computed the the rate of $0.10 per day after the due date.	Account	System	Medium
BR-004	Customers may have at most five books checked out to their account at any time	Account	Customer	High
BR-005	System should automatically block the customers who have not paid their late fee for more than two months.	Account	System	Low

Non - Functional Requirements

ID	Requirement	Topic Area	Actor	Priority
NFR-001	UI should be simple and should also be easily accessible to all users and levels of expertise.	Usability	System	Medium
NFR-002	A comprehensive list of FAQs on how to use the system will be available for the customers.	Usability	System	Low
NFR-003	As long as the database is up and running, the system can be restarted in case of failure without loss of data.	Reliability	System	High
NFR-004	System will be supported on multiple platforms.	Reliability	System	High

User Requirements

ID	Requirement	Topic Area	Actor	Priority
UR-001	As a customer, I want an option to sign up, so that I can create an account on the portal	Account	Customer	High
UR-002	As a customer, I want an option to log in using my credentials so that I can access my account	Authentication	Customer	High
UR-003	As a customer, I want to update my profile so that i can provide my details	Account	Customer	Medium
UR-004	As a customer, I want to be able to select my preferred genres so that I can see books related to those genres on my home page.	Profile	Customer	Low
UR-005	As a customer, I want to see a dashboard displaying categorized list of books based on my preferred genres so that I can browse for available books.	Dashboard	Customer	Medium

UR-006	As a customer I want a dashboard so that i can manage the books that I have borrowed	Dashboard	Customer	High
UR-007	As a customer, I want to be able to search for books based on titles, authors, genres or ISBN	Books	Customer	High
UR-008	As a customer, I want an option to post reviews for books so that I can write reviews for the book that I have read.	Books	Customer	Low
UR-009	As a customer, I want to see a book's description so that I can view details of the book and other users' reviews before I borrow it.	Books	Customer	Low
UR-010	As a customer, I want to have an option to contact library staff so that I can ask queries.	Queries	Customer	Medium
UR-011	As a customer, I want to be able to remove account when I no longer need it.	Account	Customer	Low
UR-012	As a library staff, I want to be able to login, so that I can access my account.	Account	Staff	High
UR-013	As a library staff, I want to see the questions posted by customers so that I can reply with the answers.	Queries	Staff	Medium
UR-014	As a library staff, I want dashboard so that I can add and remove books in circulation.	Dashboard	Staff	High
UR-015	As a library staff, I want to able to manage customer accounts so that I block/unblock accounts when needed	Account	Staff	Medium
UR-016	As a library staff, I want an option to post reviews, so that I can write reviews for books in circulation.	Book	Staff	Medium
UR-017	As an administrator, I want to be able to create/remove staff accounts so that I can manage staff user accounts.	Account	Admin	High

UR-018	As an administrator, I want to able to manage user accounts so that I can block/unblock users as needed.	Account	Admin	High
UR-019	As a library staff, I want an update book functionality so that I can update the details of book in circulation.	Dashboard	Staff	High
UR-020	As a library staff, I want to able to manage customer accounts so that I add/remove customer accounts.	Account	Staff	Medium

Data storage:

● We will be using MySQL as our database for this project. We plan to use the database to store our customers and their details, all the books available in the system and their attributes and a comprehensive list of all the users using the system will be stored.
● We will make use of the DbHelper class which will contain methods that will interact with the underlying database. The class is designed in such a way that we are able to access all the data with minimal changes to the code.
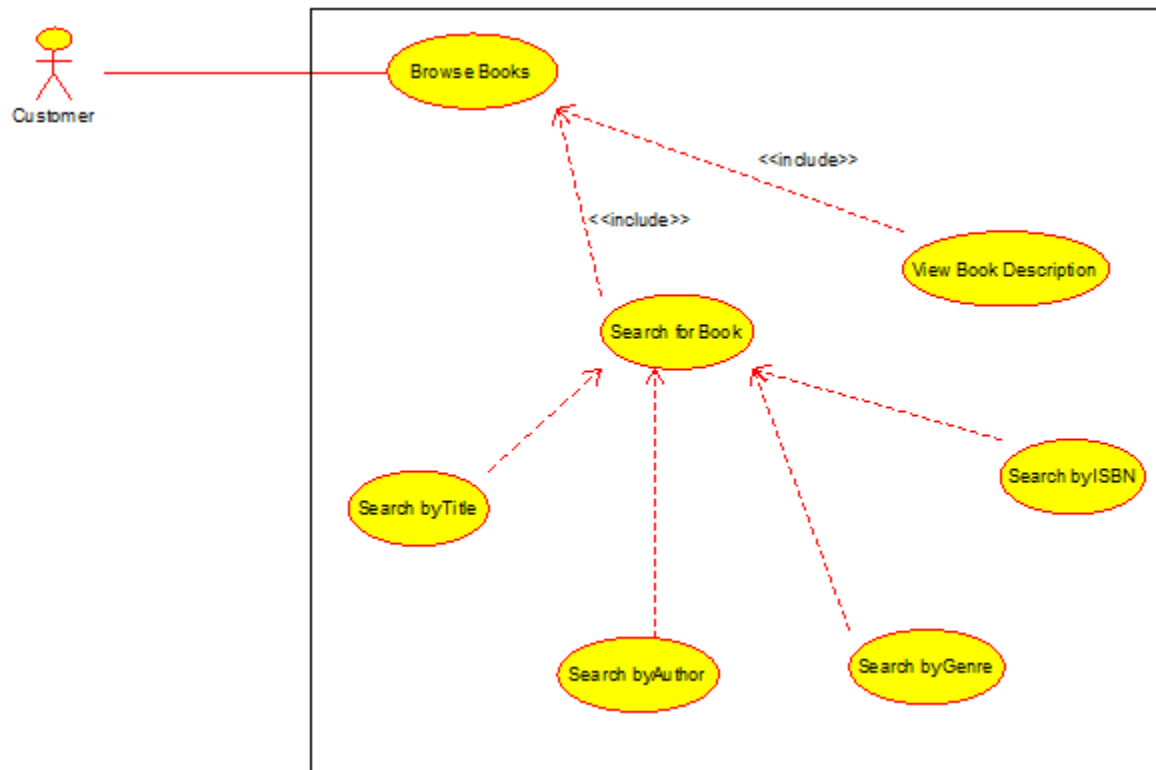
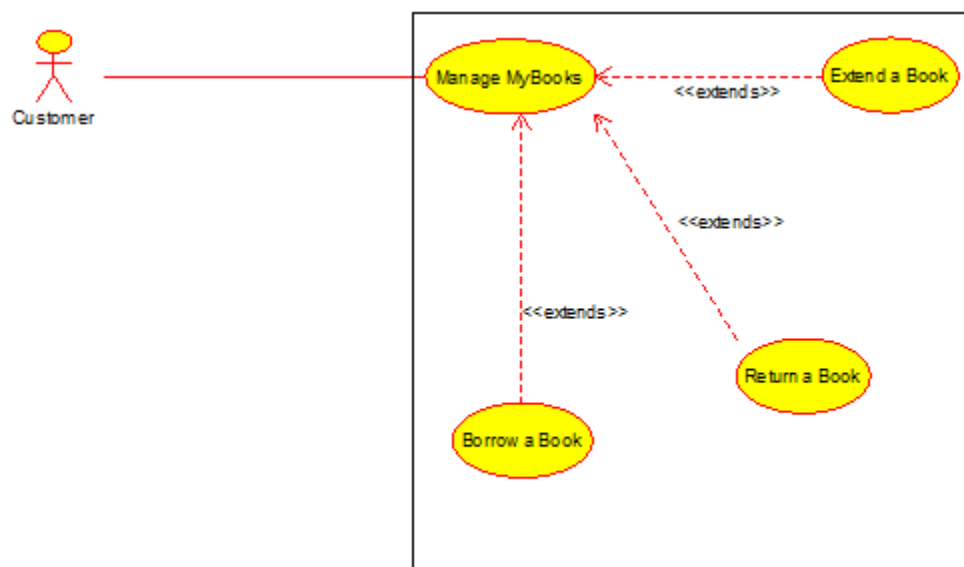**Use Cases:**

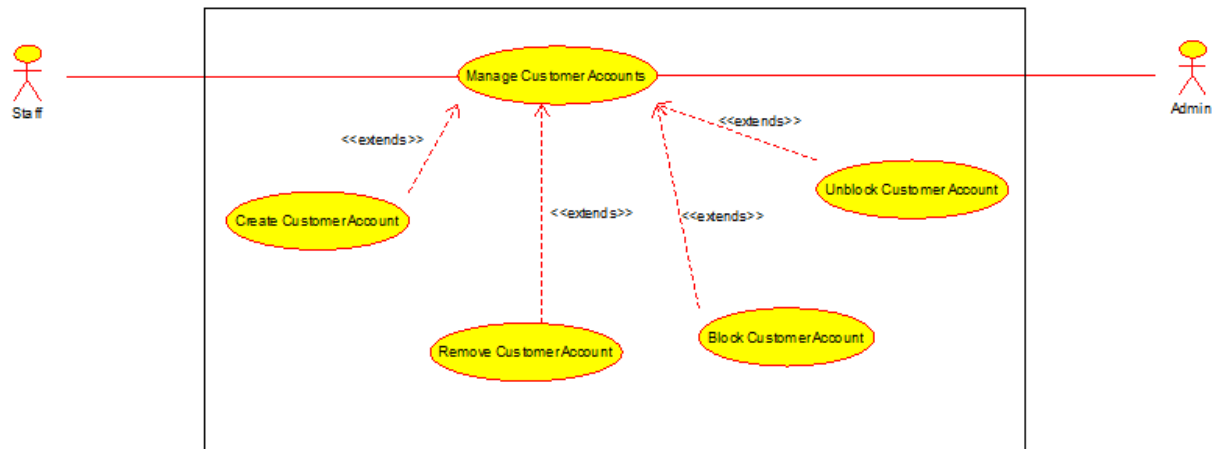**A. Use Case Overview Diagram**:

Online Library System:
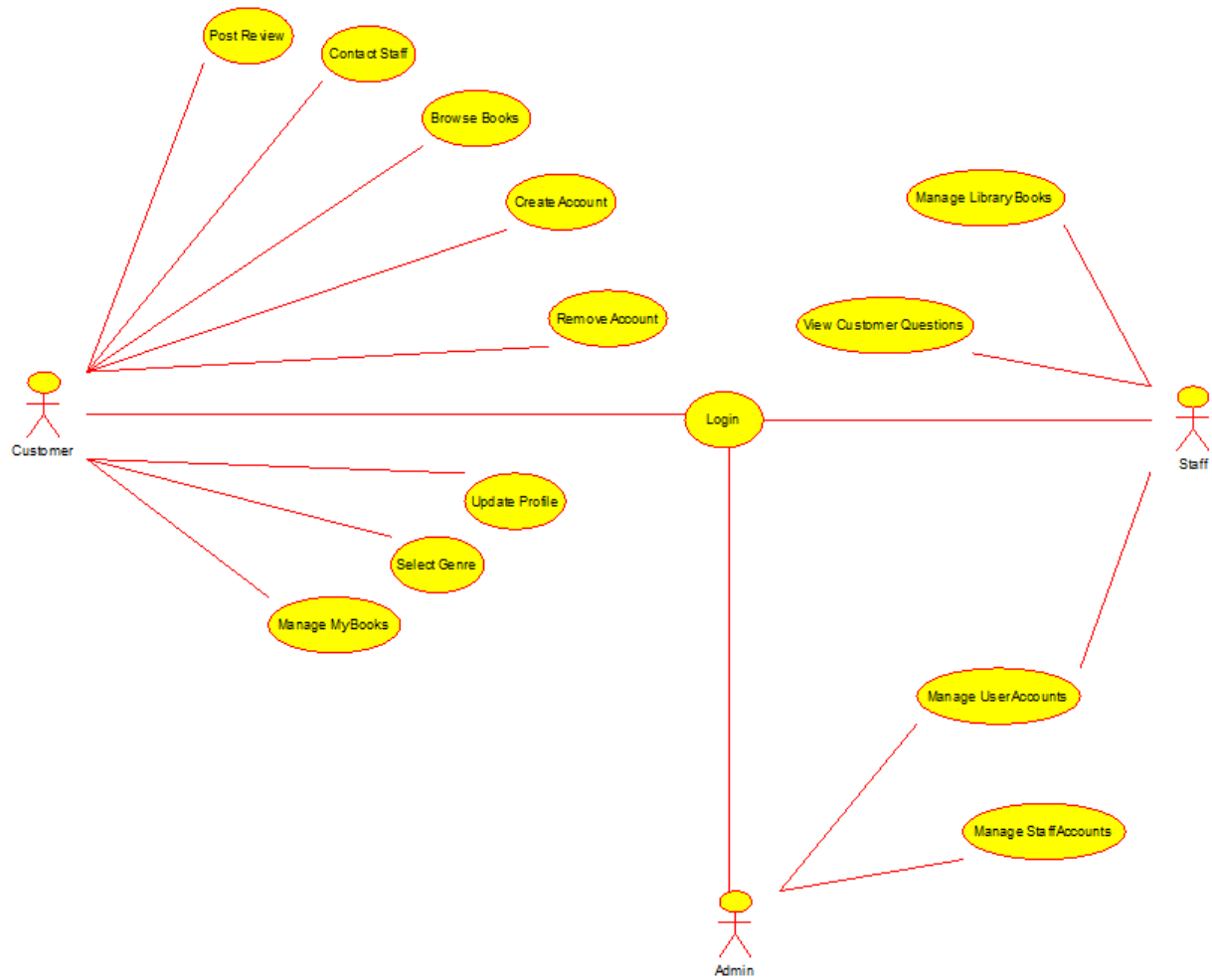
B. Sub-diagrams:

1. Customer Browse Books

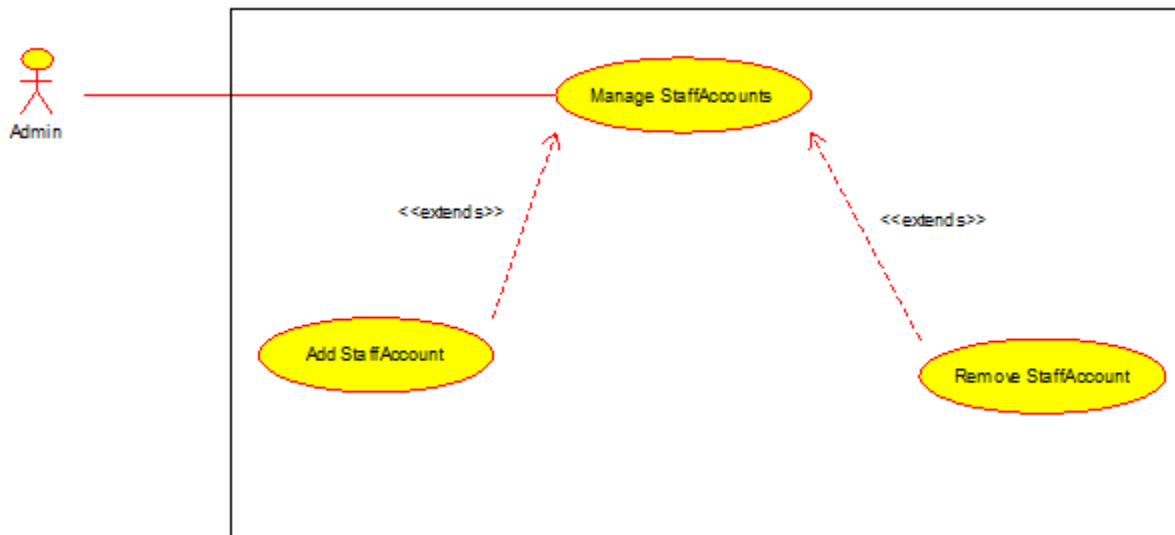**2. Customer Manage Books**

3. Manage Customer Accounts

4. Manage Library Books

5. Manage Staff Accounts

Admin

Manage StaffAccounts

<<extends>>

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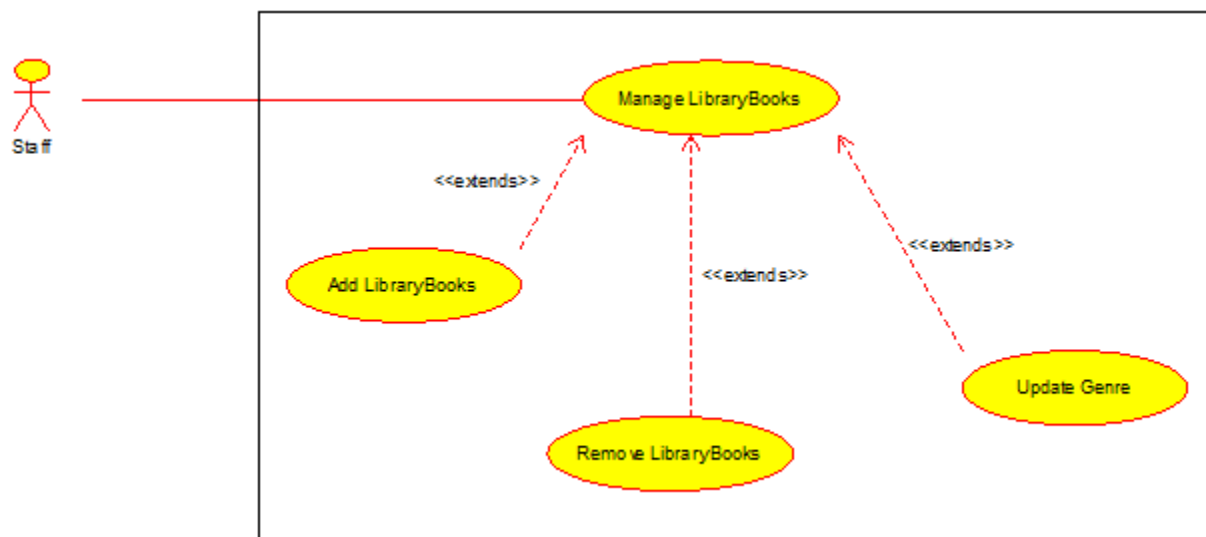
Add StaffAccount

Remove StaffAccount

UI Mockups:

Login/ Signup Page

A Web Page

http://rentabook.com/

Sign In

Username

Password

Login

Sign Up

First Name   Last Name
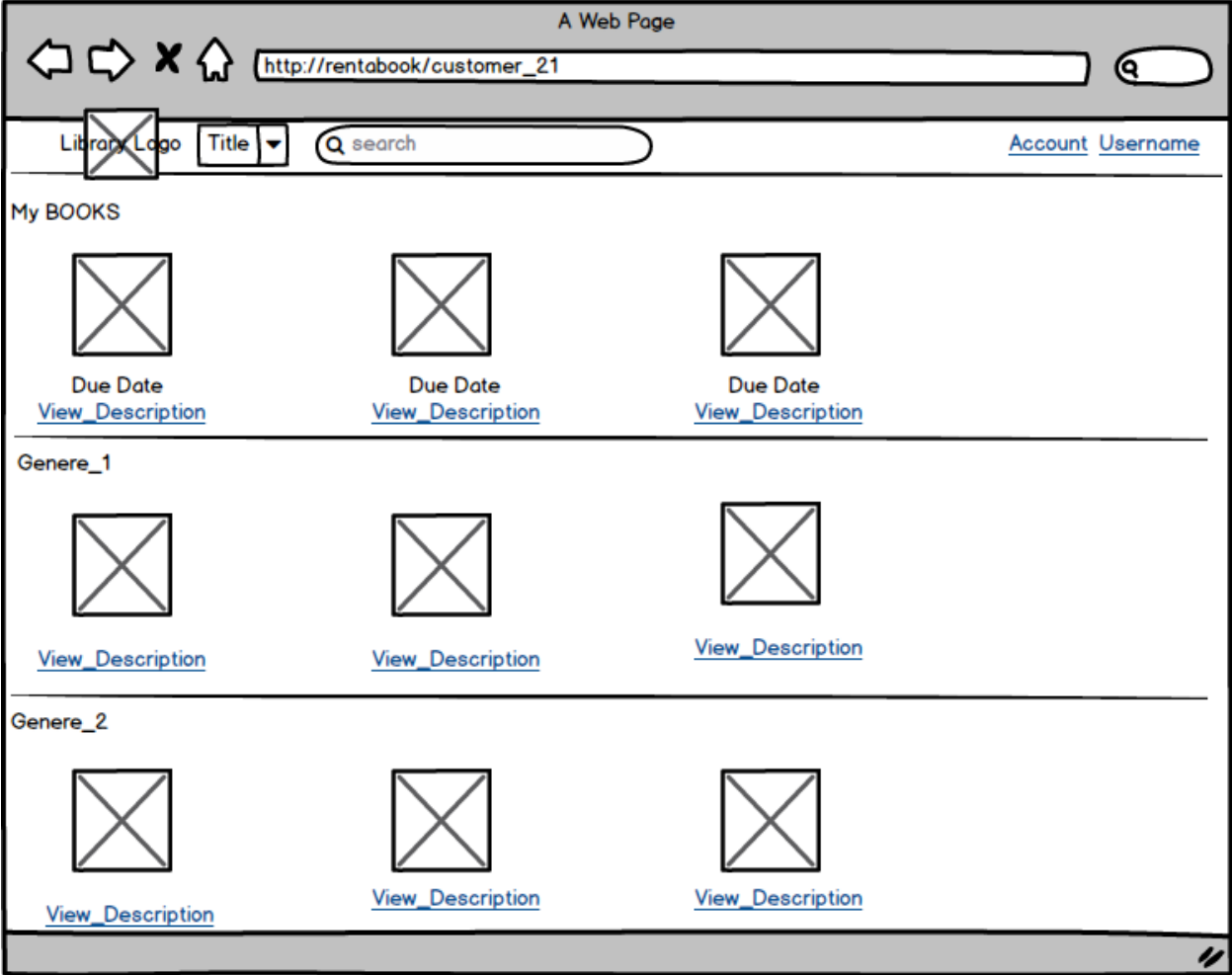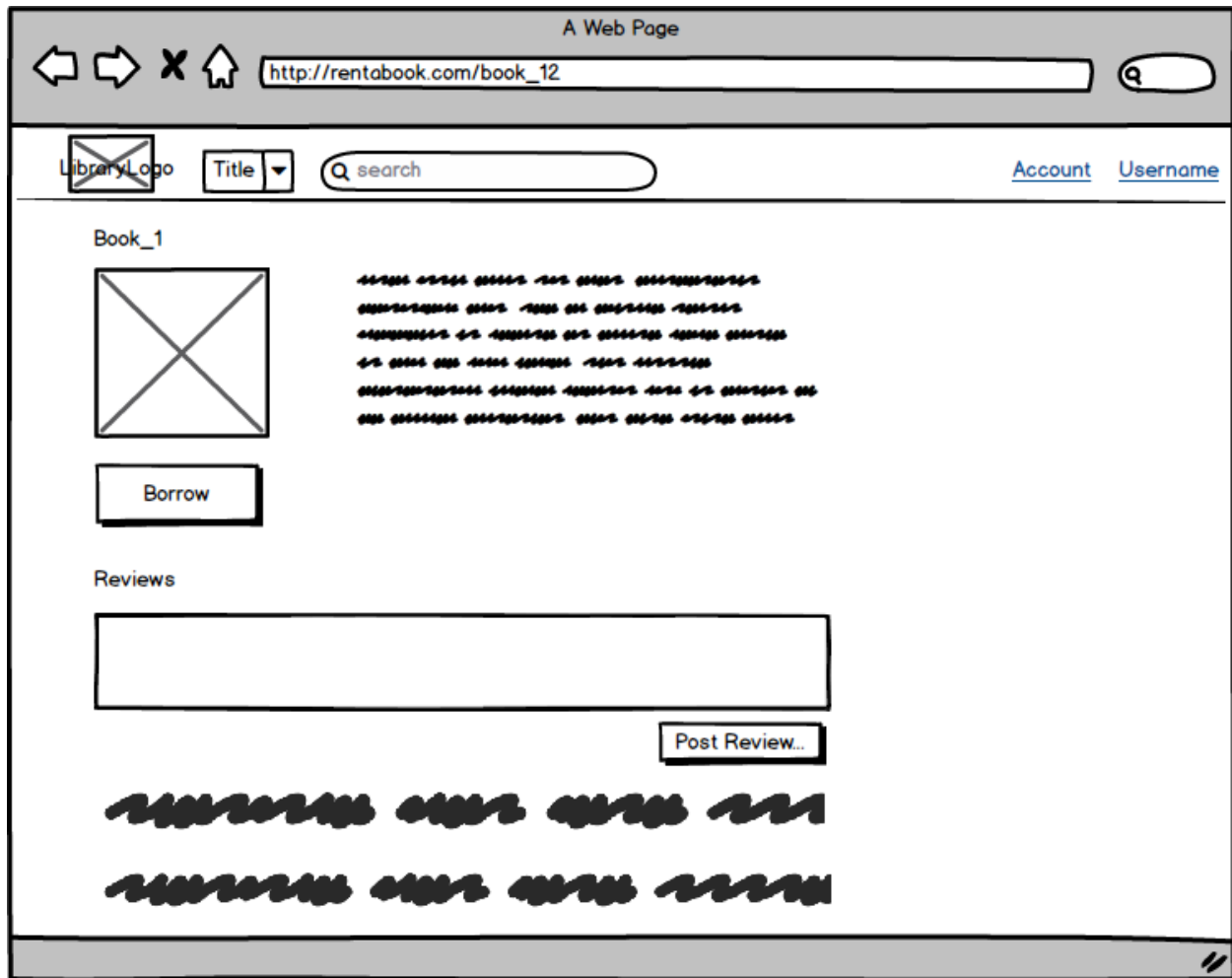
Address

Email ID

Phone Number

Password

Retype Password

Create Account

Image about book

Customer Dashboard

A Web Page

http://rentabook/customer_21

Library Logo | Title ▾ | Q search | Account Username

My BOOKS

Due Date
View_Description

Due Date
View_Description

Due Date
View_Description

Genere_1

View_Description

View_Description

View_Description

Genere_2

View_Description

View_Description

View_Description

Displaying book's description

A Web Page

http://rentabook.com/book_12

LibraryLogo | Title ▾ | 🔍 search | Account Username

Book_1

Borrow

Reviews

Post Review...

Displaying Search Results

A Web Page

http://rentabook.com

Library Logo | Title ▾ | 🔍 search   Account Username

Book_1

Book_2

Book_3
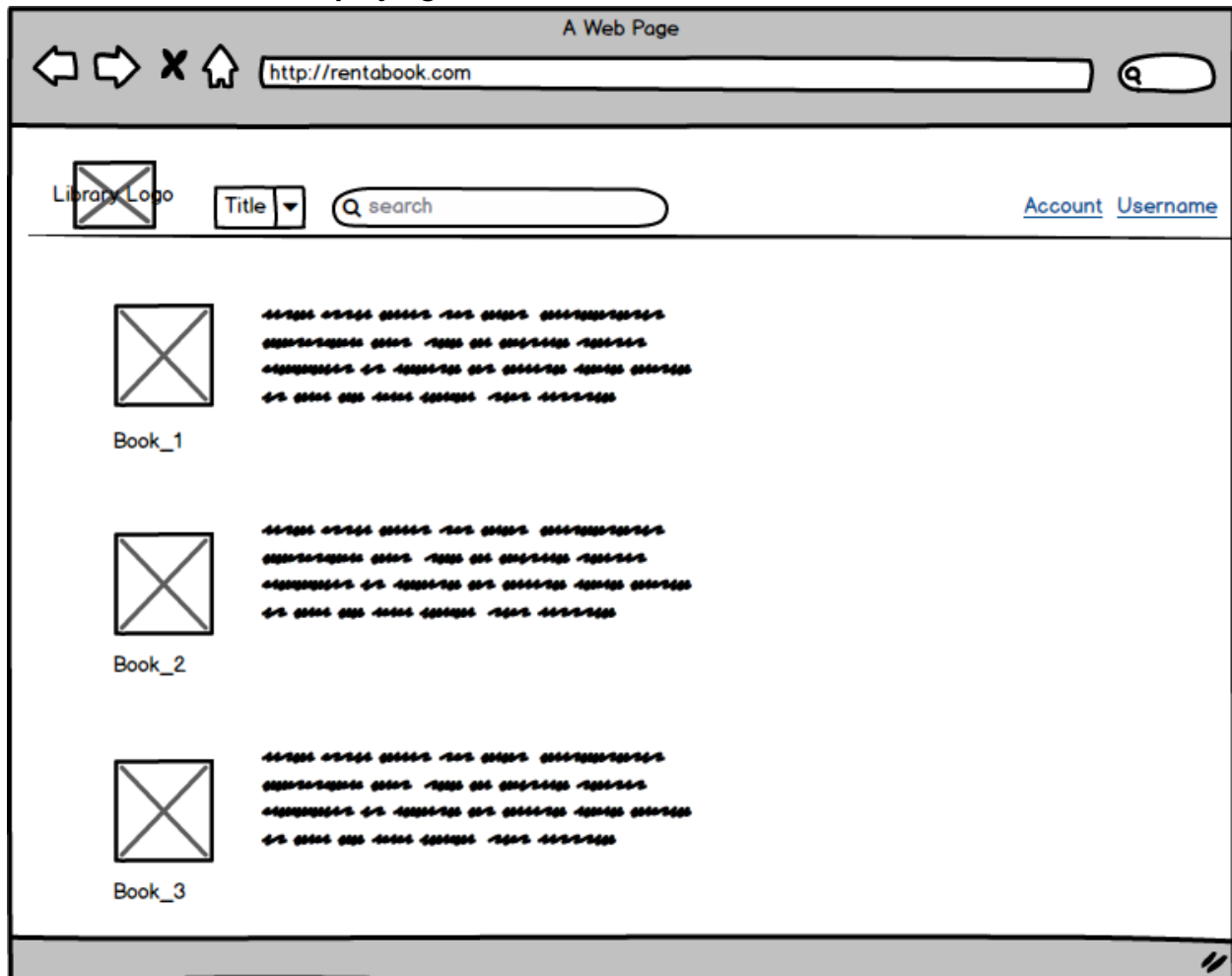
A Web Page

http://rentabook.com/patron/FAQ/

Library Logo

Title | search | Account | Username

FAQ- Customer

Enter customer name

Customer name

Customer types the question here

Submit

A Web Page

http://rentabook.com/FAQ/staff

Library Logo

Title | search | Account | Username

STAFF DASHBOARD

View Customer questions

Manage books

Add Book | Remove book | Update

Manage Customers

Add Customer | Remove Customer | Update records

Close

A Web Page

http://rentabook.com/patron/home/

Library Logo

Title | Q search | Account | Username

FAQ- Staff View

Question 1

Type some answer here

Question 2

Type some answer here

Question 3

Type some answer here

Question 4

Type some answer here

Question 5

Type some answer here

A Web Page

http://rentabook.com/FAQ/staff

Library Logo

Title | Q search | Account | Username

ADMIN DASHBOARD

Manage Customers

Add Staff | Remove Staff | Update

Block User | Unblock User

Close

Class Diagram:

Available on GitHub at: <u>ClassDiagram_OnlineLibrarySystem</u>