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School of Information Technologies

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# **LENDABOOK APPLICATION**

Home project in subject Building Distributed System (ICD0009)

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## Table of Contents

1 Application overview .....	3
1.1 Introduction .....	3
1.2 Initial stage .....	3
1.3 Further development.....	4
2 Diagrams.....	5
2.1 Entity Relationship Diagram .....	5

# **1 Application overview**

## **1.1 Introduction**

LendABook is an application designed to help people share their love for books. The application is meant to be used by public and private libraries and Users to facilitate book lending and widen the selection of books available for lending by incorporating private libraries.

There are a few applications for book swapping that initially fill the same goal to reuse and make books more accessible but this one is targeted mostly to people (Users) who do not want or have room for an in-home library.

Finding a book, you are looking for, in a public library can be very time consuming and frustrating when all the copies of the book you are looking for have already been lent out. LendABook eliminates these kind of situations as you can reserve a book through the application itself and just go pick it up as soon as you can from the counter or registered place of pickup.

## **1.2 Initial stage**

Application is planned to be created in different stages. Features in an initial stage are the following:

- User can create their one or many libraries.
- Library can add and take away books form their book list that are available to lend.
- Library must add a lending duration for all its books.
- Libraries must add a pickup timeframe and place for the Users to come (for public libraries can be the opening hours and a main counter)
- User can reserve a book for pickup with specified pickup time.
- Library can accept or deny a pickup request.

- Users can rate books they have read through the app.
- Libraries can rate lenders based on their experience with them.
- Users can see their due dates and lending history also the activities associated with their own libraries.
- User must have returned and paid late fees for all late books before lending a new one.

### **1.3 Further development**

After initial stage is implemented, following features can be added.

- Suggestion of books based on their record of lent books.
- Search discrimination based on distance from current location.
- Delivery system for Users to receive their books through a postal service or even door to door delivery by our delivery people.
- Account swap from User to Library and vice versa.

## 2 Diagrams

### 2.1 Entity Relationship Diagram

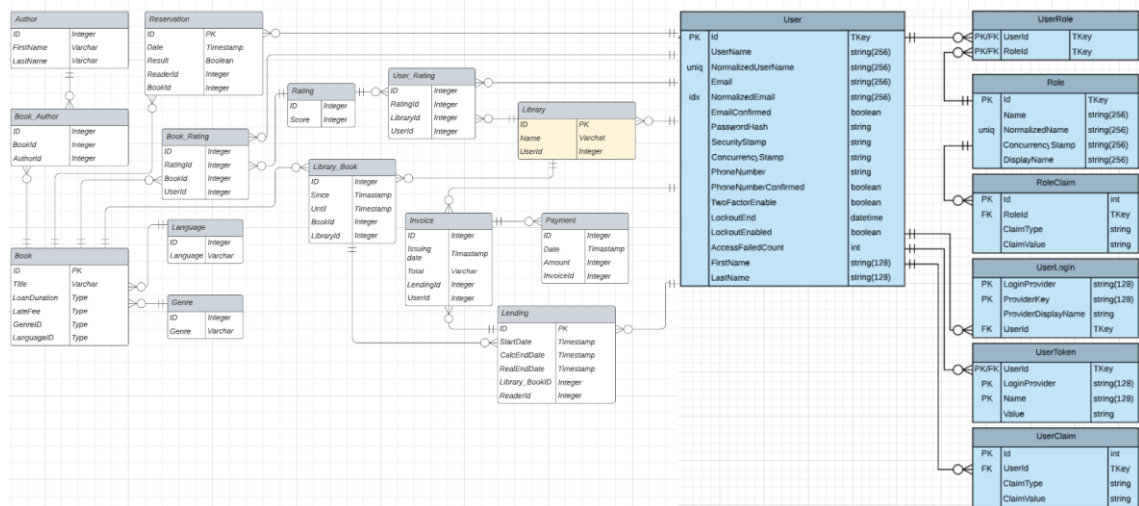


Figure 1 Entity Relationship Diagram

## 2.2 UI Mockups

[Link to LucidChart](#)

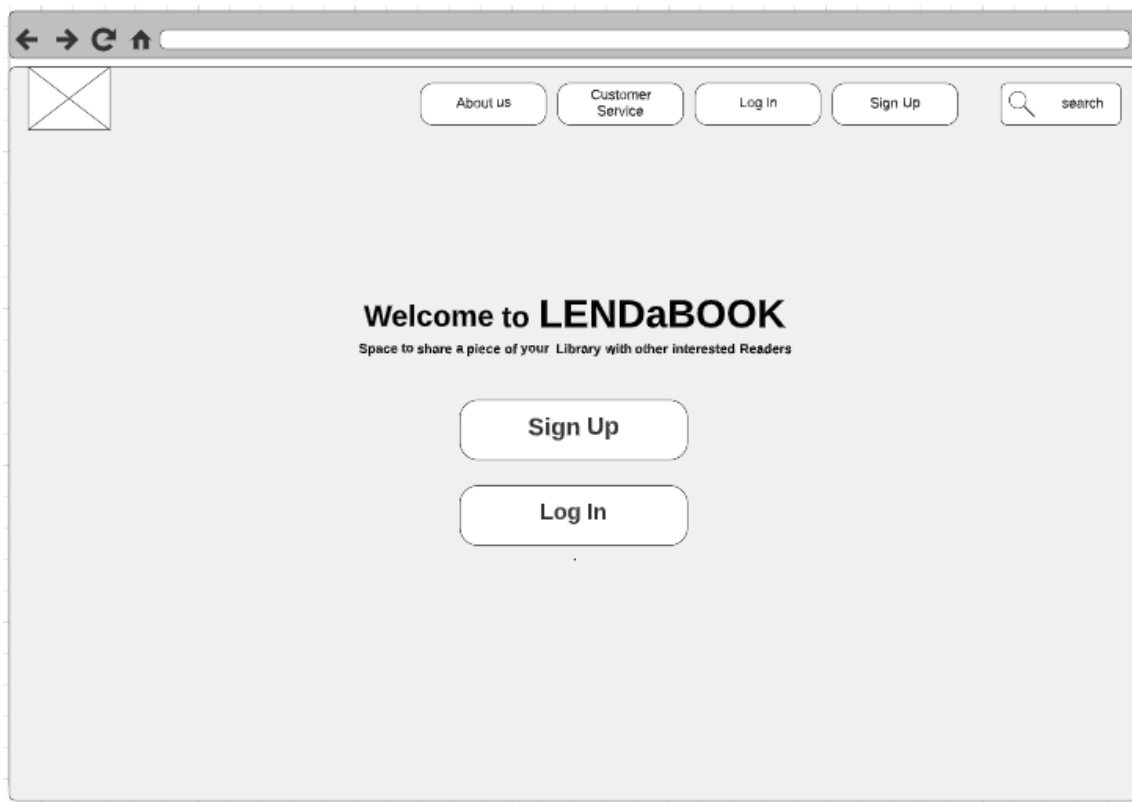
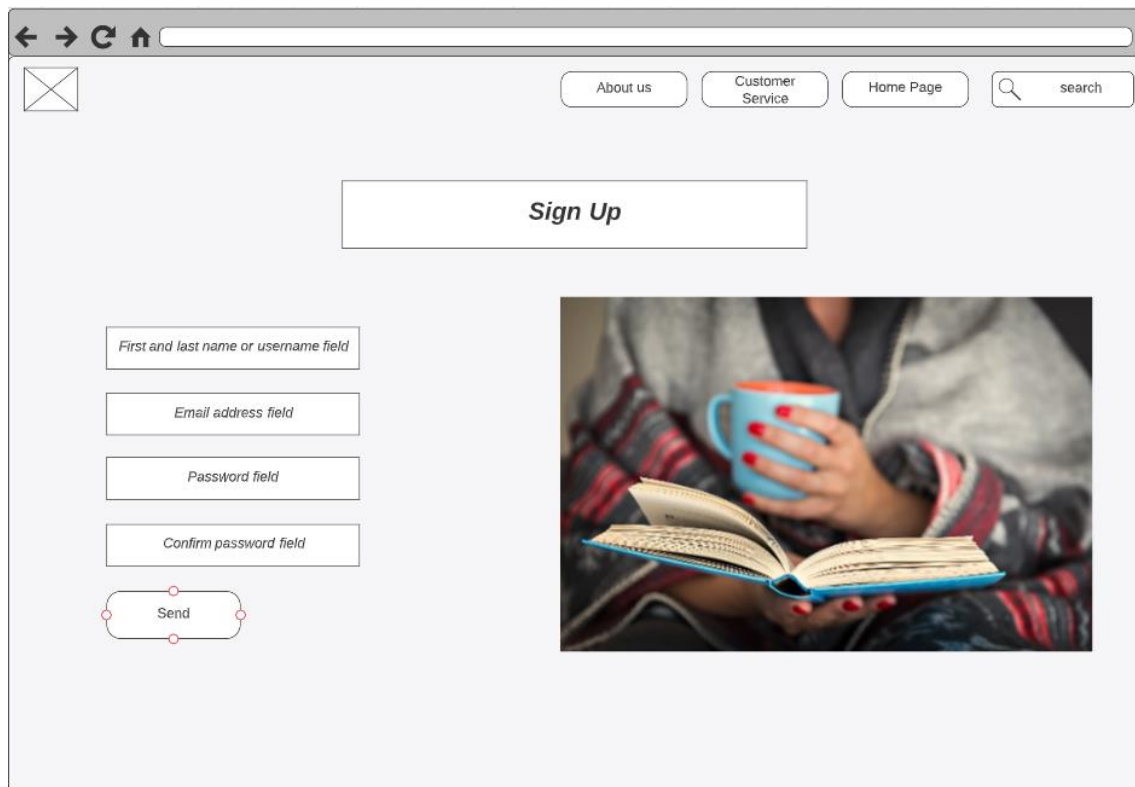
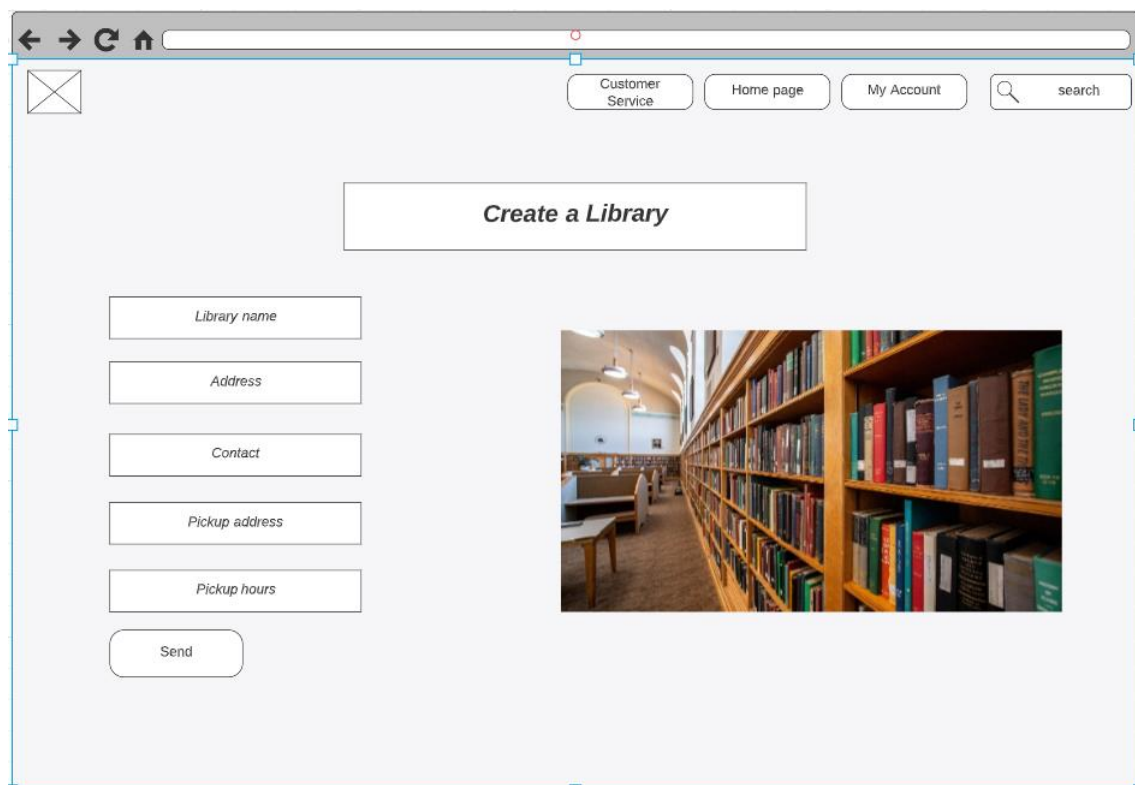


Figure 2 Landing Page with Sign up And Log in



A web browser window displaying a 'Sign Up' page. The browser's address bar is empty. The page has a light gray background. At the top right, there are three navigation buttons: 'About us', 'Customer Service', and 'Home Page', followed by a search bar with a magnifying glass icon and the text 'search'. In the center of the page, there is a white rectangular box with the text 'Sign Up'. Below this, on the left side, is a vertical stack of form fields: 'First and last name or username field', 'Email address field', 'Password field', and 'Confirm password field'. Below these fields is a rounded rectangular button with the text 'Send'. To the right of the form fields is a photograph of a person's hands holding a blue mug and an open book.

Figure 3 Sign Up Page



A web browser window displaying a 'Create a Library' page. The browser's address bar is empty. The page has a light gray background. At the top right, there are three navigation buttons: 'Customer Service', 'Home page', and 'My Account', followed by a search bar with a magnifying glass icon and the text 'search'. In the center of the page, there is a white rectangular box with the text 'Create a Library'. Below this, on the left side, is a vertical stack of form fields: 'Library name', 'Address', 'Contact', 'Pickup address', and 'Pickup hours'. Below these fields is a rounded rectangular button with the text 'Send'. To the right of the form fields is a photograph of a library interior with tall bookshelves filled with books.

Figure 4 Page to create a library

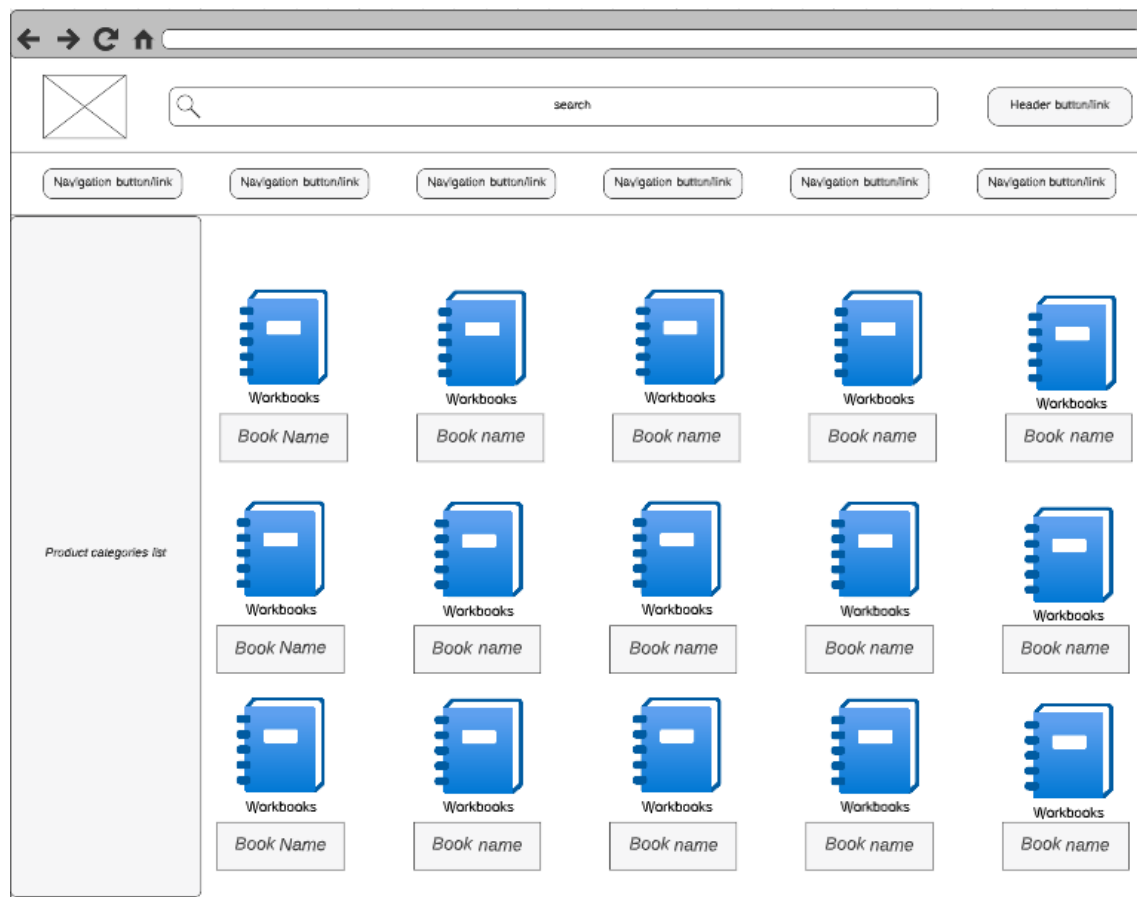


Figure 5 Main page for User



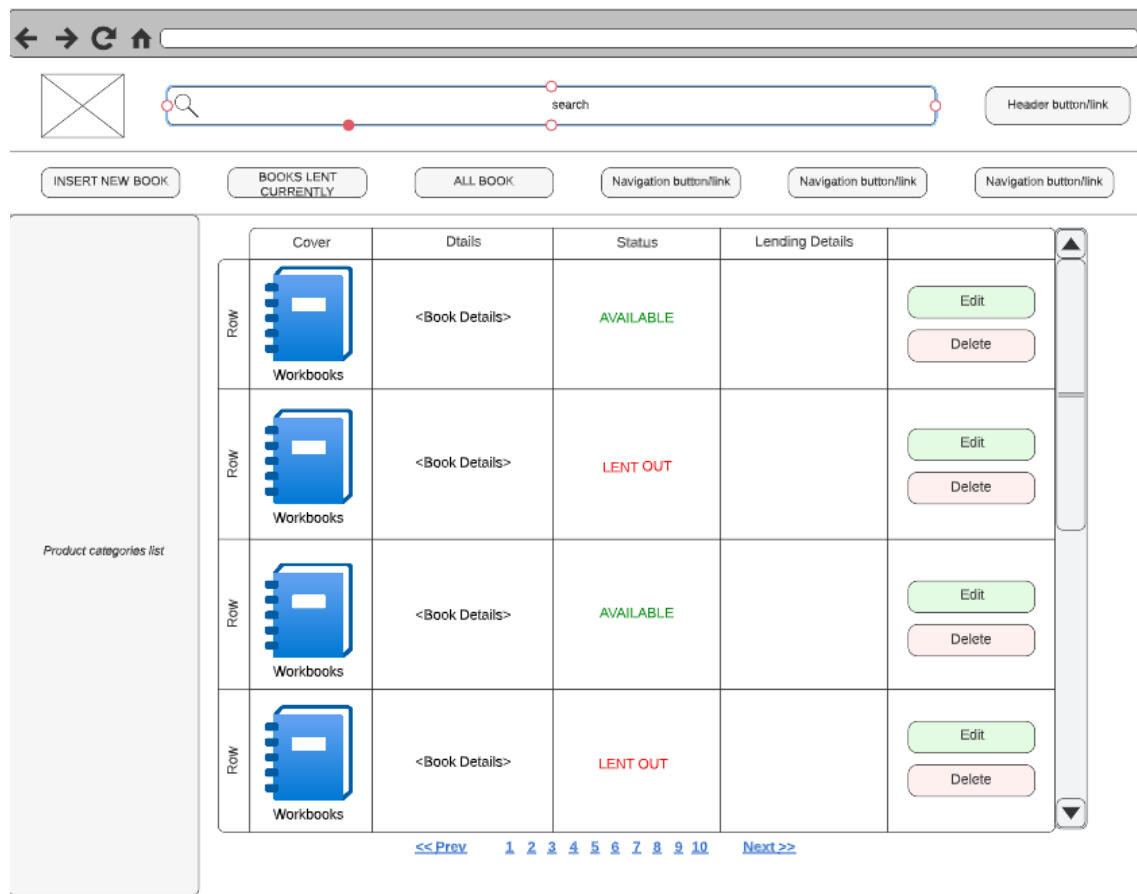


Figure 6 Main page for Library