Project report

on

BookShare: A website for lending and sharing the books

Under the Guidance of Dr. Vivek Patil

SY Bachelor of Technology

Artificial Intelligence & Data Science

Αt



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Abstract:

This project is a frontend web application developed using HTML, CSS, and JavaScript, designed to facilitate book sharing and lending among users. The platform allows users to sign up, log in, and post books they wish to lend, including book details and images. It also enables users to search for books, view detailed information, and connect with lenders. The website features a clean, user-friendly interface, responsive design, and dynamic interactivity using JavaScript. Although currently limited to frontend functionalities, it lays a strong foundation for integrating backend services to support real-time data storage, user authentication, and book transactions in future development stages.

Brief Overview of the Project:

The Book Sharing and Lending Website is a frontend-based web application developed using **HTML, CSS, and**JavaScript. Its primary goal is to create a user-friendly platform where individuals can share, lend, and borrow books within a community.

The website includes several core pages:

- Home Page (index.html): Showcases available books and navigation options.
- Login/Signup Page (login.html): Allows users to create accounts or log in to their existing ones.
- Post Book Page (post-book.html): Users can upload books with titles, images, and descriptions.
- Search Page (search.html): Lets users find books by title, author, or genre.
- Book Detail Page (book-detail.html): Displays detailed information about selected books.
- Profile Page (profile.html): Displays user details and books they've posted.
- About Page (about.html): Gives an introduction to the platform's purpose and team.

Key features include:

- Responsive layout using CSS for cross-device compatibility.
- Tabbed login/signup form switching with JavaScript.
- A mock login system with visual feedback like swapping the login button with a profile photo.
- Image-based book listings and modal pop-ups for successful actions.

The website is currently frontend-only, but it is structured to support future enhancements such as:

- Backend integration for authentication and database storage
- User messaging or borrowing requests
- Book availability status tracking

Introduction:

In an era dominated by digital access and community collaboration, the need for sustainable and resource-sharing platforms has grown significantly. This project, a **Book Sharing and Lending Website**, aims to foster a community-driven environment where individuals can share, lend, and borrow books seamlessly. The platform is designed to promote reading habits, reduce the cost of acquiring books, and encourage knowledge exchange among users. Developed using **HTML**, **CSS**, and **JavaScript**, the website serves as a prototype that demonstrates the concept of peer-to-peer book exchange. Users can create accounts, post books they wish to lend, search for books available nearby, and view detailed information about each listing. The intuitive and visually engaging user interface ensures easy navigation, making the process of lending and borrowing books simple and efficient.

This project lays the foundation for a scalable application that can be expanded with backend integration, user

This project lays the foundation for a scalable application that can be expanded with backend integration, user authentication, real-time notifications, and book availability tracking in future iterations

Problem Statement:

Despite the widespread availability of books, many individuals—especially students and avid readers—face challenges in accessing the books they need due to high costs or limited availability in their local areas. At the same time, countless books remain unused on personal shelves, leading to resource underutilization.

There is a lack of an organized, community-driven platform that enables people to share, lend, and borrow books conveniently within their local areas. Most existing solutions either focus on book sales or lack a peer-to-peer lending approach.

This project aims to address this gap by creating a user-friendly, frontend-based platform where users can upload books for lending, search for books based on location, and connect with others interested in borrowing or sharing. The solution focuses on accessibility, sustainability, and promoting a culture of shared learning

Frontend Technologies:

Frontend Used for the Website

The website is developed using the following frontend technologies:

• HTML (Hypertext Markup Language):

Used to structure the web pages and content such as forms, buttons, sections, and navigation links.

• CSS (Cascading Style Sheets):

Applied for styling the web pages, including layout design, fonts, colours, responsive elements, and overall user interface aesthetics.

JavaScript:

Used for adding interactivity to the website. It manages form validations, tab switching (between login and signup), dynamic updates like showing the profile picture after login, and handling UI behaviours like modals.

Justification of Technology Stack:

The selected tech stack—**HTML**, **CSS**, and **JavaScript**—was chosen for the following reasons:

- **HTML** is the foundation of all web development. It provides the essential structure for creating user-facing interfaces, making it ideal for building web pages like login/signup forms and content sections.
- **CSS** is used to enhance the visual appeal of the website. It allows for the design of a responsive, user-friendly, and attractive layout, ensuring that users have a pleasant browsing experience across devices.
- **JavaScript** brings interactivity to the website. It was used to handle user actions such as switching between login and signup tabs, displaying a profile picture upon login, managing modals, and validating input fields—all essential for a smooth user experience.

This frontend-only tech stack is lightweight, easy to deploy, and well-suited for static or prototype websites. It is also beginner-friendly and perfect for quick development cycles, especially during the initial phase of a project.

App Component (Main Layout):

- The main layout is defined within the HTML structure, controlling how users navigate through the login and signup process.
- It serves as the backbone of the application, ensuring the correct rendering of the login form, signup form, and static content such as the footer and navigation links.
- It coordinates user interaction flows like authentication (login/signup) and visual feedback through JavaScript-based DOM manipulation.

Login & Signup Forms:

- These components allow users to log in to an existing account or create a new one.
- Each form includes essential input fields such as email, password, name, and location.
- Form validation and interactivity (like toggling between login and signup tabs) are handled through JavaScript.
- These forms are critical for simulating authentication behavior on the frontend.

Button Components:

- Login and Signup Buttons: Trigger JavaScript functions to validate user input and simulate successful login or registration.
- **Profile Picture Button:** Once a user logs in successfully, the "Login" button dynamically changes to a profile image, enhancing user experience and personalizing the interface.
- **Success Modal Button:** Appears after successfully posting a book (simulated), giving users confirmation and a call-to-action to view their books.

Modal Component (Success Modal):

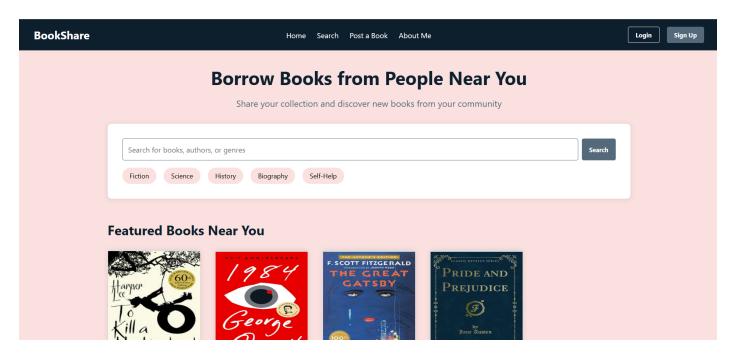
- This component provides visual confirmation to the user upon completing specific actions like posting a hook.
- It includes a styled overlay and modal box, enhancing feedback and improving the UX.
- A close icon and redirection button are included for seamless interaction.

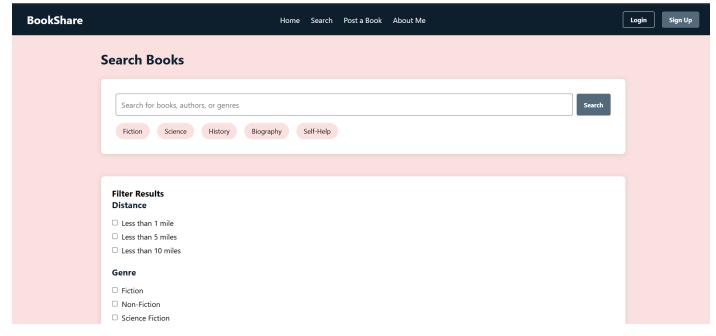
Footer Component:

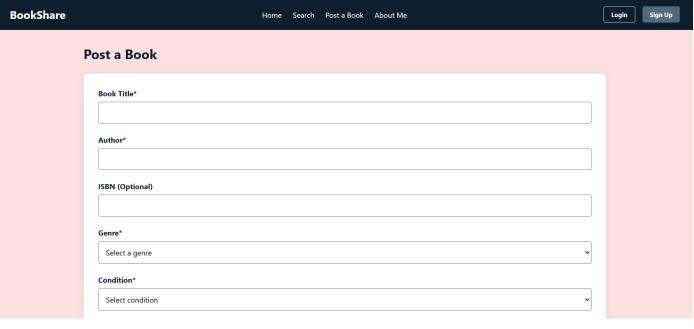
- Contains important links such as Home, About, Terms, Privacy, and Contact.
- Also includes placeholder social media links.
- Styled with CSS to maintain consistency across the site and present a polished, professional look.

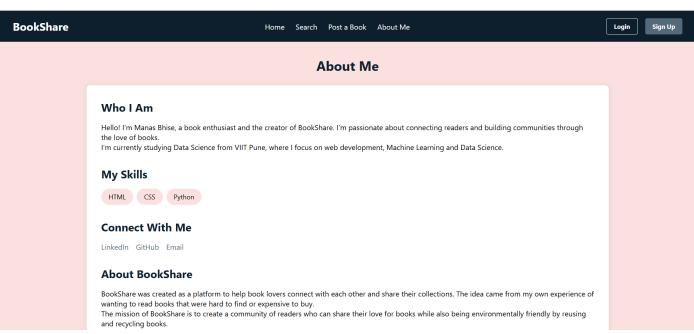
Styling with CSS:

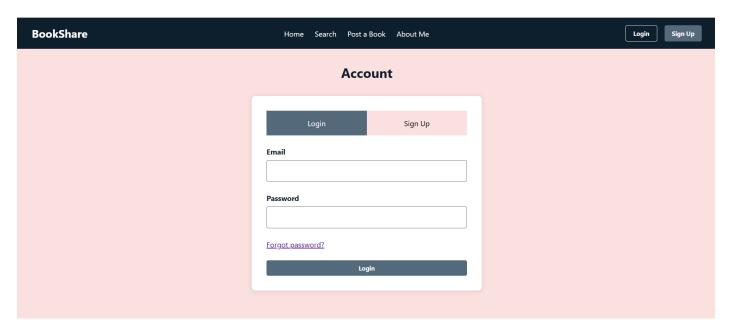
- All components are styled using a custom CSS file.
- Responsive layout ensures mobile and desktop friendliness.
- Visual elements like modals, form inputs, and buttons are styled for clarity and intuitive interaction.













Conclusion:

The book-sharing website offers a simple, intuitive platform for users to share and borrow books within their local communities. With a clean user interface and essential features such as login/signup functionality, a profile component, and a responsive design, the project demonstrates how frontend technologies like HTML, CSS, and JavaScript can be effectively used to prototype a real-world solution. This website encourages a culture of reading and sustainability by promoting the reuse of books through digital connectivity. Although currently limited to frontend development, this foundation provides a strong base for future enhancements, including backend integration, database storage, and real-time communication. Overall, the project reflects a practical and socially impactful use of web development skills.