**Online Book Exchange Platform**

**Project Domain / Category**

Web Based Application

**Abstract / Introduction**

The Online Book Exchange Platform is a web-based application designed to facilitate the exchange of books among users. The platform allows users to list books they own and are willing to exchange or give away, and browse books from other users. It promotes a community-driven system where book lovers can find, request, and exchange books with others based on location or interest.

The platform will have two types of users: Book Owners (who list their books) and Book Seekers (who browse and request books). The system will allow users to communicate and arrange for book exchanges via a messaging feature. This project promotes sustainability by encouraging reusing and sharing resources.

**Functional Requirements:**

Provide a bulleted list of functional requirements

**Functional Requirements:**

1. **User Registration & Login:**
   * Users can create an account using email.
   * Secure login functionality with password reset options.
2. **Book Listings:**
   * Users can list books they wish to exchange by entering details like title, author, genre, condition, and location.
   * Option to add photos of the book.
   * Option to add the new book URL like amazon, daraz etc.
3. **Search & Filter Books:**
   * Users can search for books by title, author, genre, or location.
4. **Request Book Exchange:**
   * Users can request a book from the owner by submitting their request from Listing details page.
   * Users can manage incoming and outgoing book requests from Book Requests Listing page.
   * Users (Owner & Seeker) can check their book requests made in the past.
   * Owners can reject OR approve any Seekers request.
5. **Book Exchange Status:**
   * Users can update the status of their book (e.g., Available, Reserved).
   * Once a owner accepts any seekers request, the book will automatically marked as not available
   * Notifications for users when a book is requested or confirmed for exchange.
6. **Messaging System:**
   * Users can communicate with each other through a built-in messaging feature to arrange the exchange details (time, location, etc.).
   * Message history is stored for future reference.(Optional)
7. **Book Reviews & Ratings:**
   * After a successful exchange, users can leave a review or rating for the book and the book owner.
8. **Book Wish List:**
   * Users can create a wish list of books they are looking for and receive notifications if listed by other users.

**Tools:**

### ****Technologies Required:****

* **Frontend:**
  + HTML5, CSS3, Tailwind CSS, JavaScript (React.js )
  + Foundation framework for responsive UI
* **Backend:**
  + Node.js with Express.js
* **Database:**
  + MONGO DB for user and book data storage