

Estimate

1. Implement Landing Page

- **Frontend Implementation:** 8-12 hours
 - Design and layout with Material-UI and Tailwind CSS.
 - Responsive design and styling adjustments.
- **Backend Implementation:** No backend required for this section.

Total Estimate: 8-12 hours

2. Implement Login Page

- **Frontend Implementation:** 10-14 hours
 - Build the login form with validation (React Hook Form + Yup).
 - Styling with Material-UI and Tailwind CSS.
 - Handling form submissions and displaying errors based on API responses.
- **Backend Implementation:** 10-14 hours
 - Create JWT-based authentication.
 - Implement login route in NestJS and return JWT token.
 - Handle validation and error responses.

Total Estimate: 20-28 hours

3. Implement User Registration Page

- **Frontend Implementation:** 10-14 hours
 - Build the registration form with validation (React Hook Form + Yup).
 - Styling with Material-UI and Tailwind CSS.
 - API integration with Axios and handling success/error states.
- **Backend Implementation:** 10-14 hours
 - Create user registration API in NestJS.
 - Hash password and store in PostgreSQL.
 - Return JWT token after successful registration.

Total Estimate: 20-28 hours

4. Implement Dashboard (After Login)

- **Frontend Implementation:** 12-16 hours
 - Create dashboard layout with Material-UI and Tailwind CSS.
 - Use React Router for subpages.
 - Fetch and display user-specific data using Axios.
- **Backend Implementation:** 10-14 hours
 - Create JWT-protected API routes for user-specific data.
 - Query the database for user information using TypeORM.
 - Return data securely via the API.

Total Estimate: 22-30 hours

5. Implement Book and Highlight Management (CRUD)

Book Management:

- **Frontend Implementation:** 16-20 hours
 - Build forms for adding, editing, and deleting books (React Hook Form + Yup).
 - Handle form submissions and API interactions with Axios.
 - Styling with Material-UI and Tailwind CSS.
- **Backend Implementation:** 16-20 hours
 - Implement CRUD API routes for books.
 - Store book data in PostgreSQL using TypeORM.
 - Validate user permissions and handle errors.

Highlight Management:

- **Frontend Implementation:** 12-16 hours
 - Build forms for adding, editing, and deleting highlights.
 - Fetch and display highlights related to books.
- **Backend Implementation:** 12-16 hours
 - Implement CRUD API routes for highlights.
 - Ensure highlights are linked to books and users in PostgreSQL.

Total Estimate (Books & Highlights combined): 56-72 hours

6. Implement Profile Page

- **Frontend Implementation:** 10-12 hours
 - Create the profile page layout.
 - Allow users to update their profile information via forms.
 - Handle API requests and validate data.
- **Backend Implementation:** 8-10 hours
 - Create an API route for updating user profiles.
 - Validate data and update in PostgreSQL.

Total Estimate: 18-22 hours

7. Implement Logout Functionality

- **Frontend Implementation:** 2-4 hours
 - Add a logout button and clear JWT token from storage.
 - Redirect users to the login page upon logout.
- **Backend Implementation:** No backend work needed.

Total Estimate: 2-4 hours

Backend Time Estimate:

- **Login Page (Backend):** 10-14 hours
- **Registration Page (Backend):** 10-14 hours
- **Dashboard (Backend):** 10-14 hours
- **Book Management (Backend):** 16-20 hours
- **Highlight Management (Backend):** 12-16 hours
- **Profile Page (Backend):** 8-10 hours
- **Logout (Backend):** No backend work required

Total Backend Estimate: 66-88 hours

Frontend Time Estimate:

- **Landing Page (Frontend):** 8-12 hours
- **Login Page (Frontend):** 10-14 hours
- **Registration Page (Frontend):** 10-14 hours
- **Dashboard (Frontend):** 12-16 hours
- **Book Management (Frontend):** 16-20 hours
- **Highlight Management (Frontend):** 12-16 hours
- **Profile Page (Frontend):** 10-12 hours
- **Logout (Frontend):** 2-4 hours

Total Frontend Estimate: 80-108 hours

Overall Time Estimate:

- **Backend: 66-88 hours**
- **Frontend: 80-108 hours**

Total Project Time: 146-196 hours