# Book Library Project Plan

## 1. Project Idea

Develop a web application where users can search for books, view a list of results with book covers, titles, and authors, and click on books to see detailed information.

## 2. Features

Search Functionality: Users can search for books by title, author, or keyword.

Book Listing: Display books in a responsive grid with cover images, titles, and authors.

Detailed View: Clicking a book shows additional details (description, publication date, publisher, etc.).

Responsive Design: Works on mobile, tablet, and desktop using Tailwind CSS.

Loading & Error States: Handles API loading and errors gracefully.

## 3. API Used

Google Books API (<https://developers.google.com/books>)

Provides book data, including titles, authors, covers, descriptions, and publication details.

Free to use with rate limits

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## 4. React Components

| **Component** | **Purpose** |
| --- | --- |
| App | Main component, manages state & API calls |
| SearchBar | Handles user search input |
| BookList | Displays a grid of books from search results |
| BookCard | Renders individual book preview (image, title, author) |
| BookDetails | Modal or separate page for expanded book info |
| LoadingSpinner | Shows while fetching data |
| ErrorDisplay | Shows if API fetch fails |

## 5. Project Timeline (5 Weeks)

| **Week** | **Tasks** |
| --- | --- |
| Week 1 | Set up React app, install Tailwind, research Google Books API |
| Week 2 | Implement API fetch logic, build SearchBar & BookList |
| Week 3 | Design BookCard & BookDetails components |
| Week 4 | Polish UI, add loading/error states, test responsiveness |
| Week 5 | Deploy to Netlify/Vercel, final testing & documentation |

## 6. Additional Notes

State Management: Use React’s useState and useEffect (no need for Redux).

Deployment: Host on Netlify or Vercel for free.

Stretch Goals (if time permits):

Bookmarking favorites (local storage)

Pagination for search results

Dark mode toggle