BookNest: Where Stories Nestle	Team ID: LTVIP2026TMIDS24289
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Project Design Phase - Proposed Solution

Project Overview

BookNest is a full-stack online book marketplace built using the MERN stack (MongoDB, Express.js, React.js, Node.js). It connects book buyers and sellers on a single trusted platform, enabling users to browse, wishlist, and order books while sellers can list and manage their inventory through a dedicated dashboard.

Problem Statement

Book buyers lack a dedicated, easy-to-use online platform to discover and purchase books from individual sellers. Simultaneously, sellers have no simple digital marketplace to list their books and manage orders efficiently.

Proposed Solution

BookNest addresses these challenges by providing a comprehensive platform with three distinct user roles:

Role	Solution Provided
User (Buyer)	Register, login, browse books, manage wishlist, place and view orders
Seller	Register, login, add/delete book listings, view and manage orders via seller dashboard
Admin	Login, manage all users, sellers, and book listings through admin dashboard

Key Features of the Solution

- Secure user authentication with bcrypt password hashing for all user types
- Book browsing with title, author, genre, description, and price details
- Wishlist management allowing users to save and remove books
- Order placement and order history tracking for buyers
- Seller dashboard to add, view, and delete book listings
- Admin dashboard to monitor and manage the entire platform
- Responsive UI using React.js and Bootstrap for all screen sizes
- RESTful API backend using Node.js and Express.js on port 4000
- MongoDB Atlas cloud database for scalable and reliable data storage

Technology Solution

Layer	Technology	Purpose
Frontend	React.js + Vite	Dynamic, responsive user interface
Styling	Bootstrap + CSS	Mobile-friendly design
Backend	Node.js + Express.js	REST API and business logic
Database	MongoDB + Mongoose	Data storage and retrieval
Authentication	bcrypt	Secure password hashing
API Communication	Axios	Frontend to backend HTTP requests

Expected Outcomes

- A functional online book marketplace accessible to buyers, sellers, and admins
- Secure and role-based access for all three user types
- Streamlined book discovery and ordering process for buyers
- Easy book listing and order management for sellers
- Complete platform oversight for admin users
- Scalable architecture that can accommodate growing users and listings

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