Book Nest: Seamless Book Discovery by Author

Introduction

Project Title: BookNest

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Overview:

Book Nest is a full-stack web application that enables users to search for books by entering the name of an author. The application fetches and displays a list of books written by the queried author using external APIs like Google Books or Open Library. It offers a responsive user interface and a scalable backend built with modern web technologies.

Project Overview

Purpose:

To provide a centralized and user-friendly platform for discovering books based on authors, helping readers and students quickly explore an author's published works.

Key Features:

- Search books by author name
- View list of book titles with cover images
- Responsive, dynamic UI
- Real-time data fetching using external APIs
- Clean and intuitive design

System Architecture

Frontend (React.js):

- React with React Router for navigation
- Axios for API requests
- Styled using CSS / Tailwind / Material UI
- Responsive design for mobile and desktop

Backend (Node.js + Express.js):

- Handles API routing and abstraction
- Connects to third-party APIs like Google Books
- Can be extended with caching or rate-limiting
- Error and edge case handling

Database (MongoDB or MySQL):

- Can store search history, favorite books, or cached results
- Mongoose or Sequelize for schema definitions

Setup Instructions

Prerequisites:

- Node.js (v18+)

- MongoDB (Local or Atlas)

- npm, Git

Setup:

git clone https://github.com/Umesh-1651/BookNest

Frontend: cd

client npm

install

Backend: cd

../server

npm install

.env file:

MONGO_URI=your_mongo_uri JWT_SECRET=your_jwt_secret

PORT=5000

Folder Structure

client/

├── public/

├── src/

│ ├── components/

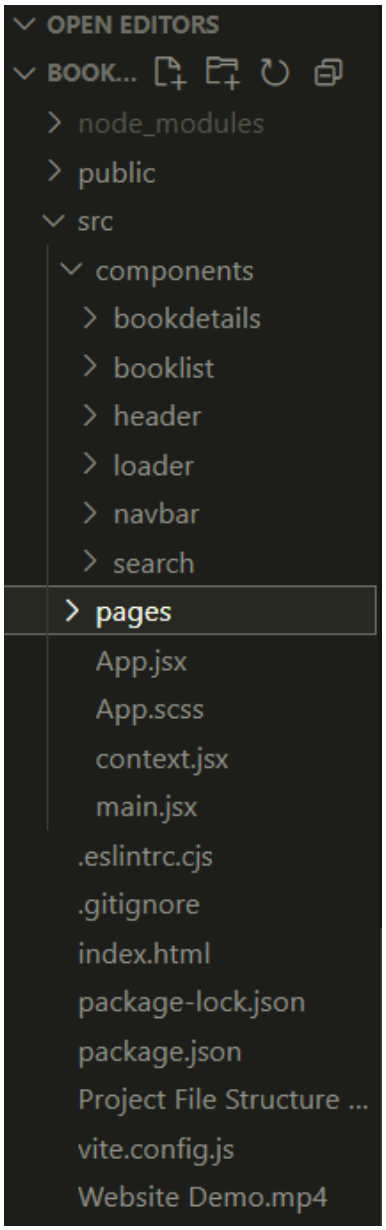
│ ├── pages/

│ ├── context/

```
│   └── App.js, index.js

server/
├── controllers/
├── routes/
├── models/
├── config/
├── middlewares/
└── server.js
```

FOLDER STRUCTURE:



Running the Application

Frontend:

cd client

npm start

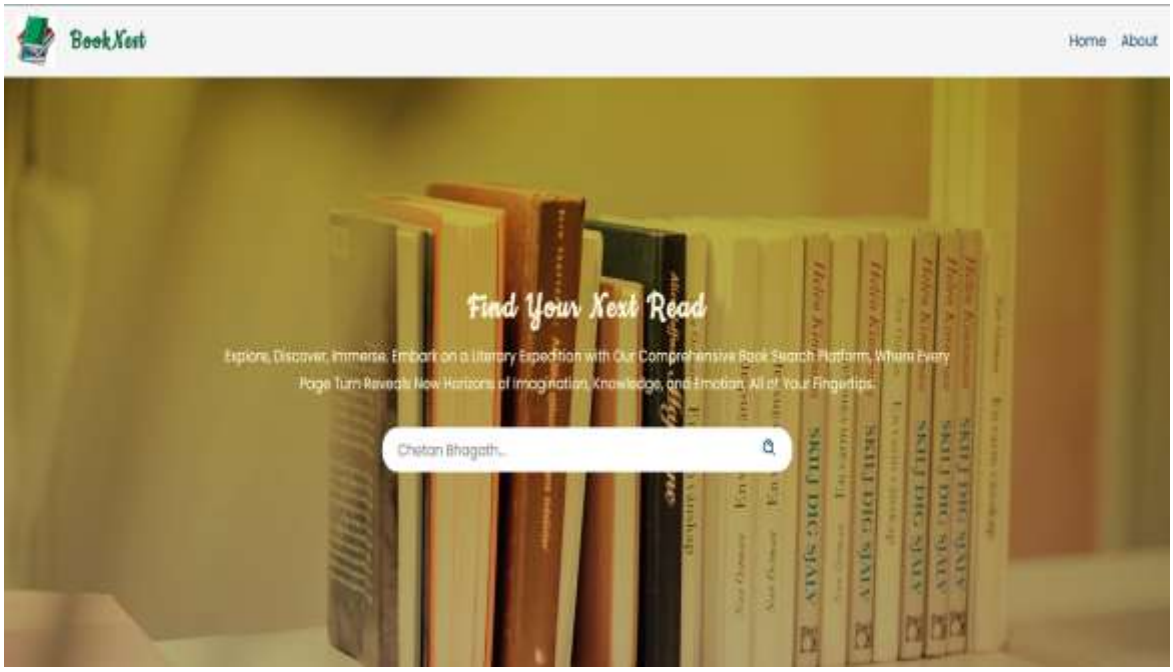
Backend:

cd server

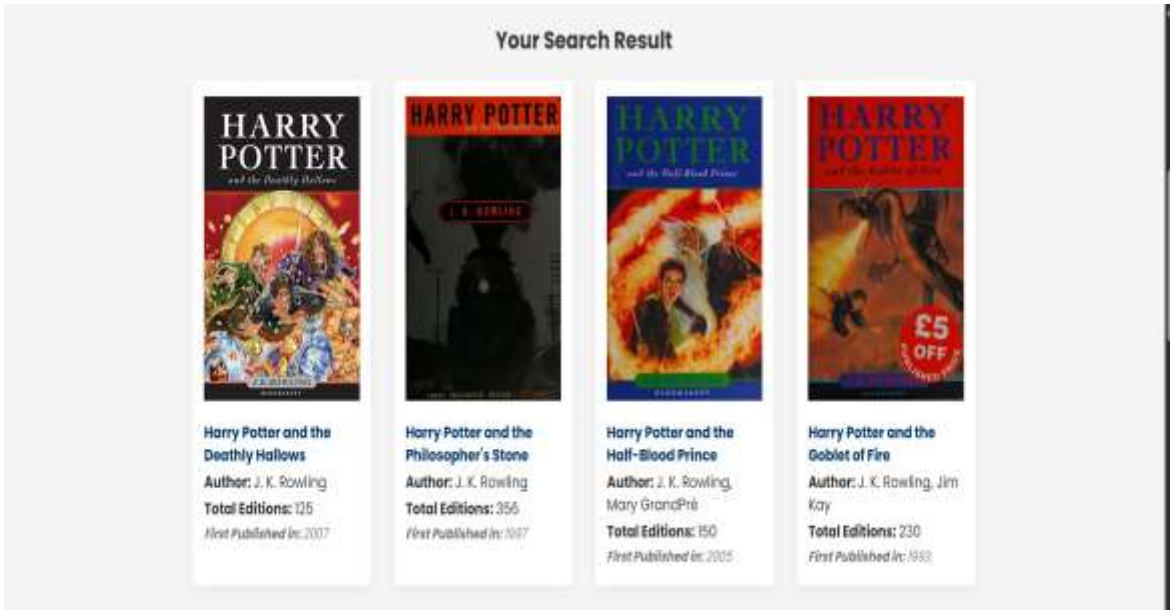
npm start

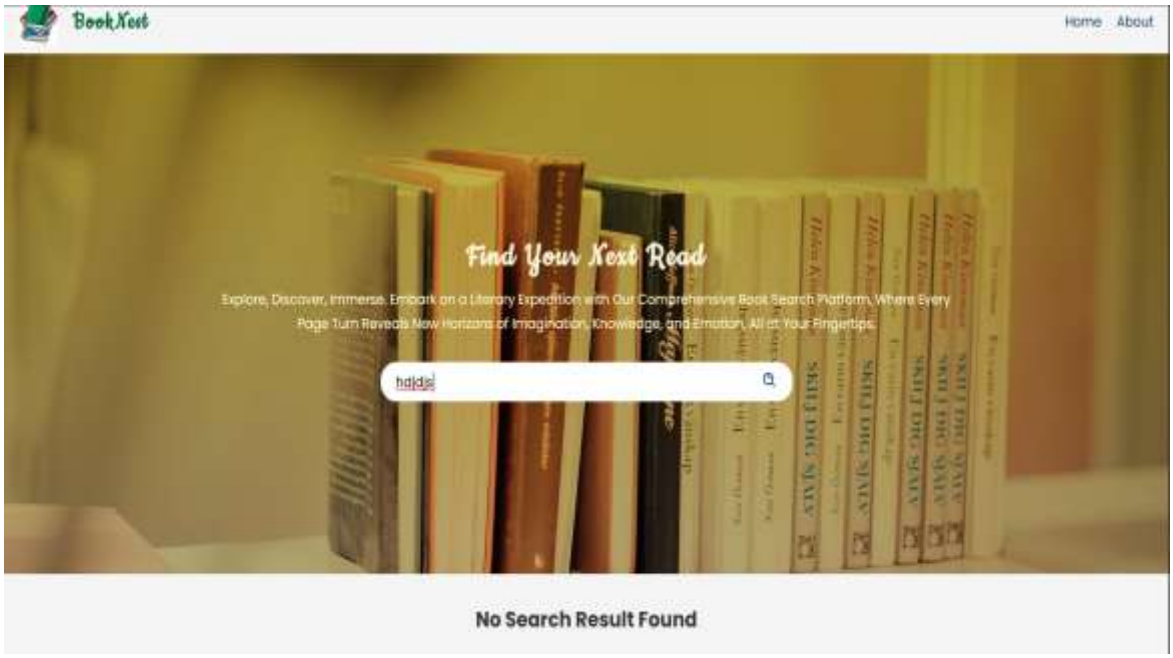
User Interface Screenshots

(Add screenshots here after building the UI)

- Home Page (Search Input):
- 

- Search Results Page

- 

- Error Handling Page (e.g., no books found)
- 

Testing

Tools Used:

- Postman (API testing)

- Lighthouse (Frontend performance)

- Browser DevTools

Coverage:

- User login/logout and protected routes

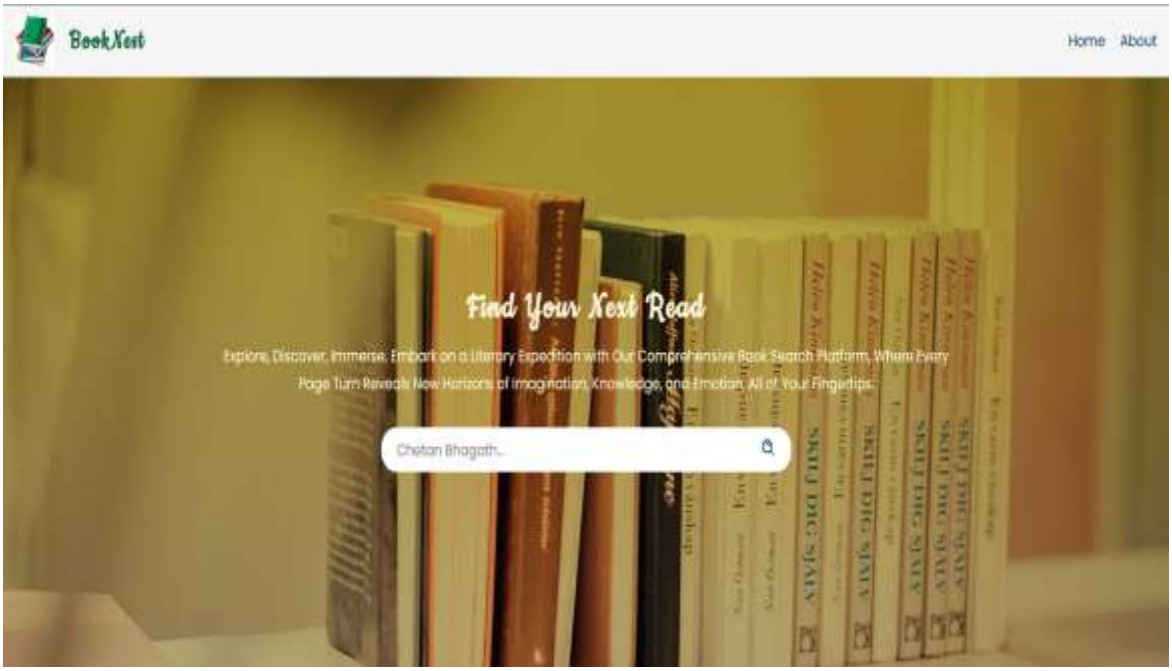
- Doctor and admin access control

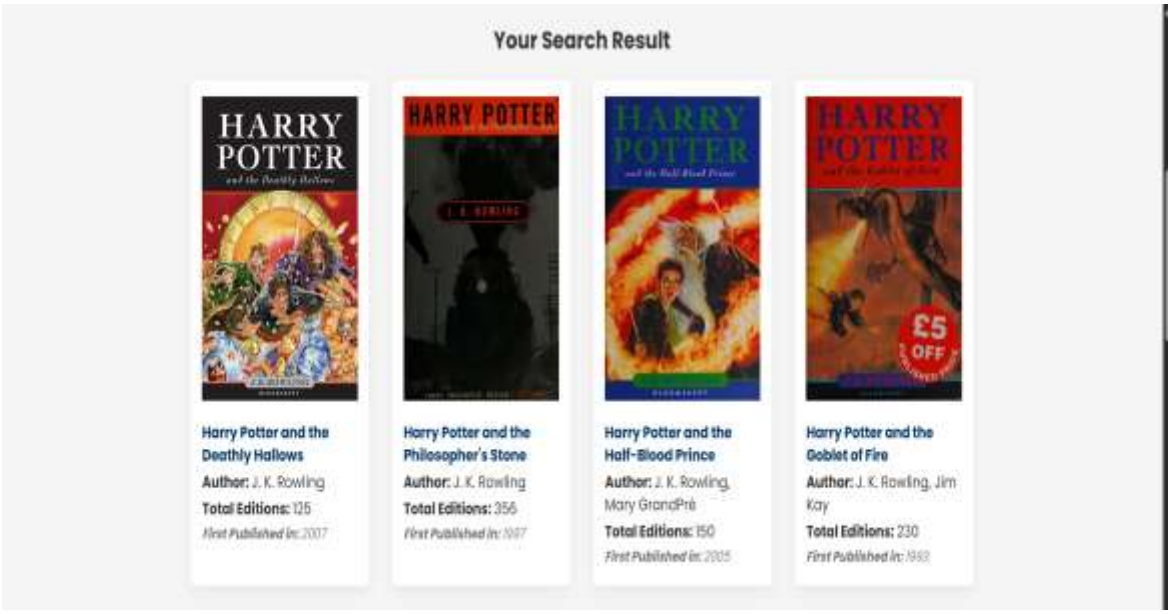
- Appointment conflict handling

- Payment success/failure scenarios

Demo or Showcase

Screenshots: As listed above





Known Issues

- Currently fetches limited results (e.g., top 10 books)
- No persistent storage for user search history
- No filters for book language, genre, etc.

Future Enhancements

- Add login system to save favorite authors
- Implement filters (by publication year, category)
- Add search suggestions/autocomplete
- Show book details (description, rating, link to purchase)
- Save recent searches in local storage or DB

Conclusion

Book Nest delivers a fast, simple, and reliable platform to explore books by author. It uses modern web technologies to integrate real-time data fetching and responsive UI. Future improvements can turn it into a powerful discovery and reading assistant for book lovers.