**📚 Project Title:**

**BookNest: Where Stories Nestle**

**📝 Project Overview:**

**BookNest** is a user-friendly, community-driven online platform that serves as a digital library and creative hub. It allows readers to explore and review books, create custom reading lists, and provides writers a space to publish and share their stories. The platform fosters a nurturing environment where stories and readers “nestle” — making it ideal for book lovers, aspiring authors, and literary communities.

**🎯 Project Goals:**

* Create an engaging platform for reading, reviewing, and sharing books.
* Provide self-publishing tools for aspiring authors.
* Build a friendly community around literature.
* Promote digital reading habits and collaborative learning.

**🌟 Key Features:**

| **Feature** | **Description** |
| --- | --- |
| 📖 **Book Library** | Browse and read books across genres: fiction, non-fiction, poetry, fantasy, etc. |
| 📝 **User Stories** | Let users publish their own writings—short stories, poems, or novels. |
| ⭐ **Ratings & Reviews** | Allow community members to rate and review books. |
| 📚 **Reading Lists** | Create personal reading lists or wishlists. |
| 🔍 **Smart Search** | Search by book title, author, genre, or tags. |
| 💬 **Community Interaction** | Like, comment, and follow users or authors. |
| 🔐 **User Authentication** | Secure sign-up, login, and role-based access. |
| 📊 **Dashboard** | User profile showing reading progress, posted stories, and achievements. |

**💻 Tech Stack:**

| **Layer** | **Technologies Used** |
| --- | --- |
| **Frontend** | React.js, Tailwind CSS, HTML5, JavaScript |
| **Backend** | Node.js, Express.js |
| **Database** | MongoDB (Mongoose ODM) |
| **Authentication** | JWT (JSON Web Token), bcrypt |
| **Deployment** | GitHub Pages (Frontend), Render/Railway (Backend) |

**📁 Project Structure:**

bash

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BookNest/

├── client/ # React frontend

│ ├── public/

│ └── src/

│ ├── components/

│ ├── pages/

│ └── App.js

├── server/ # Node.js backend

│ ├── controllers/

│ ├── models/

│ └── routes/

├── .env # Environment variables

├── README.md

└── package.json

**🚀 How It Works:**

1. Users sign up/login.
2. Readers explore and rate books.
3. Writers upload their own stories.
4. Everyone can interact and build a book-loving network.

**🧠 Future Scope:**

* Add support for **audiobooks** and **ePub/pdf downloads**
* Launch a **mobile app** using React Native
* Implement **AI recommendations** based on reading history
* Integrate **discussion forums** and live book clubs
* Add **multilingual content** support

**📌 Use Cases:**

* A student project for portfolio development
* A startup idea for digital publishing
* A community platform for schools/colleges/book clubs

**📄 License:**

This project is open-source under the **MIT License**.

**👥 User Roles and Permissions**

| **Role** | **Description** |
| --- | --- |
| **Visitor** | Can browse public content (books, reviews) |
| **Reader** | Can rate books, comment, create reading lists |
| **Author** | Can publish stories, manage their work, receive feedback |
| **Admin** | Can manage users, approve reported content, handle moderation |

**🎨 UI/UX Design Highlights**

* **Minimalistic & Responsive Design** – Works across devices: desktop, tablet, mobile.
* **Dark Mode / Light Mode** toggle.
* **User Dashboard** – Displays reading progress, uploaded stories, followers.
* **Book Card Component** – Displays cover image, title, author, rating, genre tags.
* **Story Editor** – Rich text editing for uploading and formatting stories.

**🧾 Sample Book Document (MongoDB format)**

json

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{

"\_id": "bk98765",

"title": "Whispers of the Forest",

"author": "Aanya Rao",

"genre": ["Fantasy", "Adventure"],

"summary": "A young girl's journey through an enchanted forest where every tree has a tale.",

"coverImage": "https://cdn.booknest/images/whispers.jpg",

"rating": 4.6,

"reviews": [

{

"user": "reader123",

"comment": "Absolutely magical!",

"rating": 5

}

]

}

**🧾 Sample User Document**

json

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{

"username": "storylover88",

"email": "storylover88@example.com",

"role": "author",

"stories": ["st12345", "st56789"],

"readingList": ["bk101", "bk102"]

}

**🤝 Contribution Guidelines**

**Want to contribute to BookNest?** Here's how:

1. Fork the repository
2. Create your feature branch (git checkout -b feature/my-feature)
3. Commit your changes (git commit -m 'Add new feature')
4. Push to the branch (git push origin feature/my-feature)
5. Open a Pull Request and describe your changes

**🧪 Testing & Quality Assurance**

* Unit tests with **Jest**
* API testing with **Postman**
* Frontend testing with **React Testing Library**
* Linting with **ESLint + Prettier**

**🛠️ API Overview (Sample Routes)**

| **Method** | **Route** | **Description** |
| --- | --- | --- |
| GET | /api/books | Fetch all books |
| GET | /api/books/:id | Fetch book by ID |
| POST | /api/stories | Upload a new story |
| POST | /api/reviews/:bookId | Add a review |
| PUT | /api/user/:id | Update user profile |
| DELETE | /api/story/:id | Delete a story |

**🔒 Security Measures**

* 🔐 **JWT** for session management
* 🔒 **bcrypt** password hashing
* 🧼 Input sanitization to prevent XSS
* 🚫 Rate limiting and IP blocking for brute-force prevention

**📦 Deployment Guide**

1. Clone the repo:

bash

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git clone https://github.com/yourusername/booknest.git

cd booknest

1. Install dependencies:

bash

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npm install

cd client && npm install

1. Configure environment:  
   Create a .env file and set:

ini

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MONGO\_URI=your\_mongodb\_uri

JWT\_SECRET=your\_jwt\_secret

PORT=5000

1. Run:

bash

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npm run dev

**📣 Acknowledgements**

* OpenLibrary API (for public books data)
* Unsplash (for free book cover images)
* Contributors, designers, and readers