

Project Design Phase-II

Solution Requirements (Functional & Non-functional)

Date	25-06-2025
Team ID	LTVIP2025TMID53185
Project Name	BookNest: Where Stories Nestle
Maximum Marks	4 Marks

Functional Requirements

These describe what the system should do — the features and capabilities that serve the user's needs.

1. User Management

- Registration & Login: Users can register and log in via email/password or social login (Google/Facebook).
- Profile Management: Users can view, edit, or delete their profile information.
- Role-based Access: Admins, authors, and readers have distinct access rights.

2. Book Catalog

- Search & Filter: Users can search for books by title, author, genre, or keyword.
- Browse Categories: Books organized into categories such as Fiction, Non-fiction, Mystery, etc.
- Book Details: View detailed book pages including synopsis, author bio, reviews, ratings, and publication info.

3. Reading Features

- E-book Reader Integration: Users can read e-books within the platform with features like bookmarks, notes, and dark mode.
- Reading Progress Tracking: Saves user reading progress per book across devices.

4. Purchase & Subscription

- Buy Books: One-time purchase for individual titles.
- Subscription Model: Monthly subscription for access to a curated library.
- Payment Gateway Integration: Secure payment options (e.g., Stripe, PayPal).

5. Reviews & Ratings

- User Reviews: Readers can write and edit reviews for books.
- Star Ratings: Users can rate books (1-5 stars).
- Commenting System: Users can comment on reviews.

6. Recommendation Engine

- Personalized Suggestions: Based on reading history and preferences.
- Trending Books: Highlights most read or top-rated books.

7. Admin Dashboard

- Content Management: Add, edit, or remove books, authors, and categories.
- User Management: View and manage user accounts and roles.
- Analytics: Track user activity, book popularity, and sales data.

Non-functional Requirements

These define how the system performs and the conditions under which it operates.

1. Performance

- Pages should load within 3 seconds under normal load.
- The system should support simultaneous access by at least 10,000 users.

2. Scalability

- The system must be scalable to support increasing numbers of books, users, and interactions without degradation of service.

3. Security

- All user data and transactions must be encrypted (SSL/TLS).
- Implementation of OAuth 2.0 for secure login.
- Role-based access control to prevent unauthorized access.

4. Availability

- The platform should have 99.9% uptime with regular backups and failover mechanisms in place.

5. Usability

- Intuitive UI/UX for all user types (readers, authors, admins).
- Responsive design optimized for desktop, tablet, and mobile.

6. Maintainability

- Codebase should be modular and well-documented to allow easy updates and bug fixes.
- CI/CD pipelines for automated testing and deployment.

7. Compliance

- GDPR compliance for user data.
- Accessibility standards (WCAG 2.1 Level AA) should be followed.