

**Project Design Phase-II**  
**Solution Requirements (Functional & Non-functional)**

Date	26-06-2025
Team ID	LTVIP2025TMID19414
Project Name	BookNest
Maximum Marks	4 Marks

**Functional Requirements:**

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	Sign-up via Form Sign-up with Gmail Sign-up using LinkedIn
FR-2	User Confirmation	Verify through Email Validate using OTP
FR-3	Book Browsing & Search	Explore by Category Look up by Title or Author Sort by Price or Rating
FR-4	Order & Checkout	Add Item to Shopping Cart Submit Order Integrate Payment Gateway (e.g., Razorpay/Stripe) Send Order Confirmation via Email
FR-5	Wishlist	Save Book to Wishlist Access Wishlist Delete Book from Wishlist

**Non-functional Requirements:**

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	The platform will feature a clean, intuitive interface optimized for both desktop and mobile devices to ensure a smooth user journey
NFR-2	Security	User authentication will be secured using JWT, with passwords encrypted via bcrypt, HTTPS for safe data transfer, and file uploads protected through Multer middleware.
NFR-3	Reliability	The system must deliver consistent performance with minimal service interruption, including comprehensive error handling, automatic retries, and regular database backups for data safety
NFR-4	Performance	The system should handle up to 500 active users at once, maintaining response times under 2 seconds by leveraging caching mechanisms and a content delivery network..
NFR-5	Availability	The system will maintain 99.9% uptime by utilizing continuous server monitoring, periodic health checks, and deployment in multiple availability zones.
NFR-6	Scalability	The backend leverages a scalable Node.js and Express framework, with MongoDB configured for horizontal scaling and a modular service-based structure to support growth.