Solution Requirements (Functional & Non-functional):

Date	
Team ID	LTVIP2025TMID53019
Project Name	BookNest
Maximum Marks	4 Marks

Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	Registration through Form Registration through Gmail Registration through LinkedIN
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	Book Browsing & Search	Browse by Categories Search by Title/Author Filter by Price/Rating
FR-4	Order & Checkout	Add to Cart Place Order Payment Integration (e.g., Razorpay/Stripe) Order Confirmation Email
FR-5	Wishlist	Add Book to Wishlist View Wishlist Remove 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 application will have an intuitive and user-friendly interface for both desktop and mobile users to enhance user experience.
NFR-2	**Security**	Secure authentication via JWT tokens, password hashing using bcrypt, HTTPS communication, and secure file uploads using Multer.
NFR-3	**Reliability**	The system should ensure minimal downtime, with proper error handling, retry logic, and database backups to ensure data integrity.
NFR-4	**Performance**	The application should support up to 500 concurrent users with optimal load time under 2 seconds using caching and CDN integration.
NFR-5	**Availability**	99.9% uptime is ensured through proper server monitoring, health checks, and deployment across multiple availability zones.
NFR-6	**Scalability**	The backend is built on a scalable Node.js + Express architecture, with MongoDB designed for horizontal scaling and service modularization.