**Project Design Phase-II**

**Solution Requirements (Functional & Non-functional)**

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| Date | 28 June 2025 |
| Team ID | LTVIP2025TMID59308 |
| Project Name | **BookNest: Where Stories Nestle** |
| 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** | **- View all available books - Search books by title, author, genre** |
| **FR-4** | **Cart and Orders** | **- Add books to cart - View cart and place order - Track current/past orders** |
| **FR-5** | **Admin Dashboard** | **- View and manage books - View users and orders - Access analytics & top books** |
| **FR-6** | **Book Management (Seller/Admin)** | **- Add/Edit/Delete books - Upload cover image - Set stock quantity & price** |

**Non-functional Requirements:**

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

| **FR No.** | **Non-Functional Requirement** | **Description** |
| --- | --- | --- |
| NFR-1 | Usability | Simple, intuitive user interface using React.js and Tailwind CSS |
| NFR-2 | Security | JWT authentication, password encryption with bcrypt, role-based access |
| NFR-3 | Reliability | Robust backend error handling, database validation, and secure routes |
| NFR-4 | Performance | Optimized REST APIs, lazy loading images, pagination for book lists |
| NFR-5 | Availability | Deployed on cloud (Vercel, Render) ensuring 24/7 uptime |
| NFR-6 | Scalability | Modular architecture; can scale horizontally with microservices approach |