**Requirement Gathering and Analysis Phase**

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

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| --- | --- |
| Date | 05 July 2024 |
| Team ID | SWTID1720014974 |
| Project Name | Book-Store |
| Maximum Marks | 2 |

**Functional Requirements:**

Following are the functional requirements of the proposed solution.

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| **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 Management | Add books  Update book details  Delete books  Search books  Browse books by category |
| FR-4 | Shopping Cart | Add books to cart  Remove books from cart  View cart  Checkout |
| FR-5 | User Profile Management | View profile  Edit profile information  Change password |
| FR-6 | Reviews and Ratings | Write reviews  Rate books  View reviews and ratings |
| FR-7 | Book Selling | List books for sale  Manage listings |
| FR-8 | Search and Filtering | Search by title,author,ISBN  Filter by category,rating,price |

**Non-functional Requirements:**

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

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| --- | --- | --- |
| **FR No.** | **Non-Functional Requirement** | **Description** |
| NFR-1 | **Usability** | React.js for a responsive and intuitive user interface. User testing to refine UI/UX. |
| NFR-2 | **Security** | JWT for secure authentication, HTTPS for secure communication, bcrypt for password hashing, CORS policies for access control. |
| NFR-3 | **Reliability** | MongoDB Atlas for cloud database services with redundancy and backup features. Robust error handling in Node.js. |
| NFR-4 | **Performance** | Redis for caching to improve response times, CDN integration for efficient delivery of static assets. |
| NFR-5 | **Availability** | Deployment on AWS EC2 with Elastic Load Balancing to ensure high availability and minimal downtime. |
| NFR-6 | **Scalability** | |  | | --- | | Microservices architecture with Node.js for scalable backend services. Horizontal scaling using containerization. | |