**Requirement Gathering and Analysis Phase**

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

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| --- | --- |
| Date | 04/07/2024 |
| Team ID | SWTID1719997659 |
| Project Name | Book -Nest |
| Maximum Marks |  |

**Functional Requirements:**

Following are the functional requirements of the proposed solution.

Here's a table outlining the functional requirements (Epic) and sub-requirements (Stories/Sub-Tasks) for a bookstore application built using the MERN stack:

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| **FR No.** | **Functional Requirement (Epic)** | **Sub-Requirement (Story / Sub-Task)** |
| FR-01 | User Authentication & Authorization | |  | | --- | | 1.1 User Registration: Allow users to register an account. |  |  |  |  | | --- | --- | --- | |  |  | 1.2 User Login: Enable users to log in using their credentials. |  |  |  |  | | --- | --- | --- | |  |  | 1.3 Password Reset: Provide a way for users to reset their passwords. |  |  |  |  | | --- | --- | --- | |  |  | 1.4 Role Management: Differentiate between admin and customer roles with distinct access levels. | |
| FR-02 | Book Catalog Management | |  | | --- | | 2.1 Add New Books: Allow admins to add new books to the catalog. |  |  |  |  | | --- | --- | --- | |  |  | 2.2 Edit Book Details: Enable admins to update book information (title, author, price, etc.). |  |  |  |  | | --- | --- | --- | |  |  | 2.3 Delete Books: Allow admins to remove books from the catalog. |  |  |  |  | | --- | --- | --- | |  |  | 2.4 Book Search: Implement search functionality to find books by title, author, or genre. |  |  |  |  | | --- | --- | --- | |  |  | 2.5 Book Filtering: Enable filtering of books based on categories like genre, price range, and rating. |  |  |  |  | | --- | --- | --- | |  |  | 2.6 Book Details: Display detailed information for each book, including description, price, and reviews. | |
| FR-03 | Shopping Cart & Checkout | |  | | --- | | 3.1 Add to Cart: Allow users to add books to their shopping cart. |  |  |  |  | | --- | --- | --- | |  |  | 3.2 View Cart: Enable users to view items in their shopping cart. |  |  |  |  | | --- | --- | --- | |  |  | 3.3 Update Cart: Provide functionality to update quantities or remove items from the cart. |  |  |  |  | | --- | --- | --- | |  |  | 3.4 Checkout Process: Implement a step-by-step checkout process for purchasing books. |  |  |  |  | | --- | --- | --- | |  |  | 3.5 Payment Integration: Integrate with payment gateways to handle online transactions. |  |  |  |  | | --- | --- | --- | |  |  | 3.6 Order Summary: Display an order summary before finalizing the purchase. | |
| FR-04 | Order Management | |  | | --- | | 4.1 Order History: Allow users to view their past orders and details. |  |  |  |  | | --- | --- | --- | |  |  | 4.2 Order Tracking: Provide order tracking status for current purchases. |  |  |  |  | | --- | --- | --- | |  |  | 4.3 Order Cancellation: Enable users to cancel orders within a specified timeframe. |  |  |  |  | | --- | --- | --- | |  |  | 4.4 Admin Order Management: Allow admins to view, update, and manage all user orders. | |
| FR-05 | User Account Management | |  | | --- | | 5.1 User Profile: Allow users to view and update their profile information. |  |  |  |  | | --- | --- | --- | |  |  | 5.2 Address Book: Enable users to manage multiple shipping addresses. |  |  |  |  | | --- | --- | --- | |  |  | 5.3 Payment Methods: Allow users to save and manage their preferred payment methods. | |
| FR-06 | Review & Rating System | |  | | --- | | 6.1 Write Reviews: Allow users to write reviews for books they have purchased. |  |  |  |  | | --- | --- | --- | |  |  | 6.2 Rating System: Implement a star rating system for books. |  |  |  |  | | --- | --- | --- | |  |  | 6.3 Review Moderation: Allow admins to moderate and approve user reviews. | |
| FR-07 | Wishlist Functionality | |  | | --- | | 7.1 Add to Wishlist: Enable users to add books to a wishlist for future reference. |  |  |  |  | | --- | --- | --- | |  |  | 7.2 View Wishlist: Allow users to view and manage their wishlist. | |
| FR-08 | Notification & Alerts | |  | | --- | | 8.1 Order Notifications: Send notifications for order status updates. |  |  |  |  | | --- | --- | --- | |  |  | 8.2 Promotion Alerts: Notify users of special promotions and discounts. | |
| FR-09 | Content Management System (CMS) | |  | | --- | | 9.1 Blog Integration: Allow admins to create and manage blog posts related to books and authors. |  |  |  |  | | --- | --- | --- | |  |  | 9.2 Event Management: Enable the management of bookstore events (e.g., book signings, author talks). | |
| FR-10 | Search Engine Optimization (SEO) | |  | | --- | | 10.1 Meta Tags: Implement meta tags for books and pages to improve search engine rankings. |  |  |  |  | | --- | --- | --- | |  |  | 10.2 Sitemap: Generate a sitemap to assist search engines in crawling the website. |  |  |  |  | | --- | --- | --- | |  |  | 10.3 SEO-friendly URLs: Ensure URLs are user-friendly and descriptive. | |

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| FR-11 | Customer Support | |  | | --- | | 11.1 Support Ticket System: Allow users to submit support tickets for assistance. |  |  |  |  | | --- | --- | --- | |  |  | 11.2 Live Chat: Provide live chat support for real-time assistance. |  |  |  |  | | --- | --- | --- | |  |  | 11.3 FAQ Section: Maintain a comprehensive FAQ section to address common user queries. | |

**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** | The navigation should be easy and user friendly |
| NFR-2 | **Security** | The security of the personal should be maintained at clear by having a secure string connection between the data base and backend |
| NFR-3 | **Reliability** | Under different kind of circumstances the usability of the product shouldn't be affected and tested for all conditions |
| NFR-4 | **Performance** | Loading time of the website should be less and must be able to manage huge number of requests |
| NFR-5 | **Availability** | No problems like server down should be there and the website should load within a max of 2 seconds |
| NFR-6 | **Scalability** | It should be able to handle increasing number of users and transactions |