**Book Store E-Commerce Web Application**

**1. Introduction**

An e-commerce web application built to provide users with a seamless shopping experience for purchasing books. This report outlines the design choices, architecture, and a user guide for the application.

**2. Design Choices**

**2.1 Front-end (React JS)**

**Component-Based Architecture:** The front-end is designed using React JS, following a component-based architecture for modular and reusable UI elements.

**Responsive Design:** The user interface is designed to be responsive, ensuring optimal viewing and interaction across various devices and screen sizes.

**State Management:** React state is efficiently utilized to manage the dynamic behavior of components, enhancing the overall user experience.

**2.2 Back-end (Node.js)**

**RESTful API:** The back-end is built using Node.js, providing a RESTful API for product, cart, and order management.

**User Authentication:** Robust user authentication and authorization mechanisms are implemented for secure access to user-specific features.

**MongoDB Integration:** MongoDB is used to store product details, user data, and cart information.

**2.3 Database (MongoDB)**

**Schema Design:** MongoDB is employed to store product details, user data, and cart information using well-defined schemas for efficient data retrieval.

**Scalability:** The database is designed with scalability in mind to accommodate the potential growth of the product catalog and user base.

**3. User Guide**

Install dependencies: npm install

Run the development server: npm start

Open http://localhost:3000 in your browser.

**4. Features Overview**

**User Authentication:** Sign up, log in, and log out securely.

**Product Catalog:** Browse categories, view new arrivals, and filter products.

**Wishlist Management:** Add/remove items to/from the wishlist.

**Cart Management:** Add/remove items, change quantity, and apply coupons.

**Order Processing:** View order summary and track orders.

**Search Functionality:** Search books by name and author.

**5. Conclusion**

E-commerce web application is designed with a user-centric approach, focusing on a responsive and intuitive user interface. The modular architecture ensures maintainability and scalability, providing a reliable and efficient e-commerce solution.