

## FACULTY OF ENGINEERING SCIENCES AND TECHNOLOGY

Department: **FEST**

Program: **BS (CS)**

### Full Stack Development

Total Marks = 11

Name: **Dil Zaib**

Registration: **54655**

Announced date: 30/12/2024

Due Date: 22/1/2025

Complex Computing Problem (CCP)		
Mapped CLO	SDG	Complex Problem Solving Mapped
CLO3	4 & 9	WP1 (Range of Conflicting Requirements) WP2 (Depth of Analysis required) WP3 (Depth of Knowledge required)

## E-Bookstore Project Report

### Project Overview

The E-Bookstore project is a full-stack web application designed to provide users with an online platform to browse, purchase, and manage books. The application includes features for user registration, login, book browsing, cart management, order placement, and an admin dashboard for managing books and viewing sales.

### Technologies Used

Frontend:

- React.js
- React Router
- Axios
- Bootstrap

Backend:

- Node.js
- Express.js
- MongoDB
- Mongoose

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- bcrypt.js (for password hashing)
- express-session (for session management)
- connect-mongo (for session storage)

### Features

#### User Features

##### 1. User Registration and Login:

- Users can register with their name, email, and password.
- Users can log in with their email and password.

##### 2. Book Browsing:

- Users can browse a list of books displayed on the home page.
- Each book displays its title, author, description, price, and image.

##### 3. Cart Management:

- Users can add books to their cart.
- Users can view their cart and proceed to place an order.

##### 4. Order Placement:

- Users can place an order for the books in their cart.
- Orders are stored in the database with details such as user ID, items, total amount, and order date.

#### Admin Features

##### 1. Admin Login:

- Admins can log in with their email and password.

##### 2. Book Management:

- Admins can add, update, and delete books.

##### 3. Sales Dashboard:

- Admins can view all orders placed by users.
- Orders are displayed with details such as order ID, user, order date, and total amount.
- Admins can filter orders by daily, weekly, and monthly sales.

### Project Structure

#### Frontend

##### Components:

- AdminNavbar.js: Navigation bar for admin users.

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- BookList.js: Displays a list of books.
- BookDetails.js: Displays details of a single book.
- Cart.js: Displays the user's cart and allows order placement.
- Footer.js: Footer component for the application.
- SalesDashboard.js: Displays sales data for admin users.

### Pages:

- Home.js: Home page displaying a slider and a list of books.
- Login.js: User login page.
- Register.js: User registration page.
- AdminLogin.js: Admin login page.
- AdminDashboard.js: Admin dashboard page.

## Backend

### Models:

- User.js: User schema and model.
- Book.js: Book schema and model.
- Order.js: Order schema and model.
- Admin.js: Admin schema and model.

### Controllers:

- userController.js: Handles user registration, login, and authentication.
- bookController.js: Handles book CRUD operations.
- orderController.js: Handles order placement and fetching.
- adminController.js: Handles admin login and authentication.

### Routes:

- userRoutes.js: Routes for user-related operations.
- bookRoutes.js: Routes for book-related operations.
- orderRoutes.js: Routes for order-related operations.
- adminRoutes.js: Routes for admin-related operations.

### Middleware:

- authMiddleware.js: Middleware for protecting user routes.
- adminMiddleware.js: Middleware for protecting admin routes.

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### Database

MongoDB:

- Used for storing user, book, and order data.
- Mongoose is used for schema definition and interaction with MongoDB.

### Snapshots

### Manage Books

Admin Dashboard
Manage Books
Sales Dashboard
Logout

### Manage Books

Failed to delete book

**The Hunger Games**

Author: Suzanne Collins

Price: \$80

Category: Thriller

Availability: Available

Update Delete

**The Hunger Games**

Author: Suzanne Collins

Price: \$100

Category: Horror

### Add Book

Name

Author

Price

Category

Availability: ☒


Choose File No file chosen

Add Book

### Books

Bookstore
Home
Books
Login Register

### Books




**The Hunger Games**

Author: Suzanne Collins

Price: \$100

View Details




**A Clash of Kings**

Author: George R.R. Martin

Price: \$100

View Details



**The Hunger Games**

Author: Suzanne Collins

Price: \$120

View Details

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### Sales Dashboard

Admin Dashboard
Manage Books
Sales Dashboard
Logout

### Sales Dashboard

Filter by:

Daily

Order ID	User	Order Date	Total Amount
678fef5bcad7b68e6472021b	abc (abc@gmail.com)	1/22/2025	\$100.00
678fef6ccad7b68e6472022e	abc (abc@gmail.com)	1/22/2025	\$220.00
678fefe1cad7b68e64720242	abc (abc@gmail.com)	1/22/2025	\$320.00
678feff0cad7b68e64720259	abc (abc@gmail.com)	1/22/2025	\$420.00
678ff0bafd4a4552f1195b04	abc (abc@gmail.com)	1/22/2025	\$520.00
678ff0c4fd4a4552f1195b1b	abc (abc@gmail.com)	1/22/2025	\$120.00

E-BOOKSTORE
LINKS
CONTACT

### Login

Bookstore
Home
Books
Login
Register

### Login

Email

Password



#### E-BOOKSTORE

Your one-stop shop for all your book needs. Find the best books at the best prices.

#### LINKS

[Home](#)  
[Books](#)  
[Cart](#)  
[Admin Login](#)

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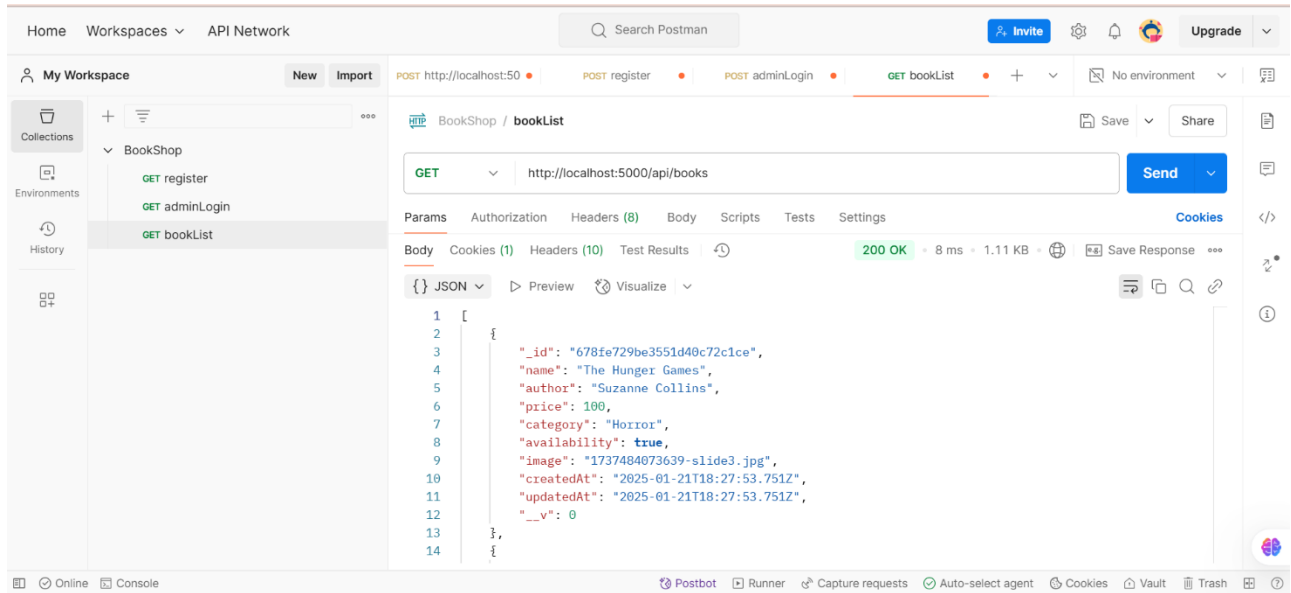
Email: support@ebookstore.com  
Phone: +1 234 567 890

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### Testing

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## Book List



Home Workspaces API Network Search Postman Invite Upgrade

My Workspace New Import POST http://localhost:50 POST register POST adminLogin GET bookList No environment

BookShop / bookList Save Share

GET http://localhost:5000/api/books Send

Params Authorization Headers (8) Body Scripts Tests Settings Cookies

Body Cookies (1) Headers (10) Test Results 200 OK 8 ms 1.11 KB Save Response

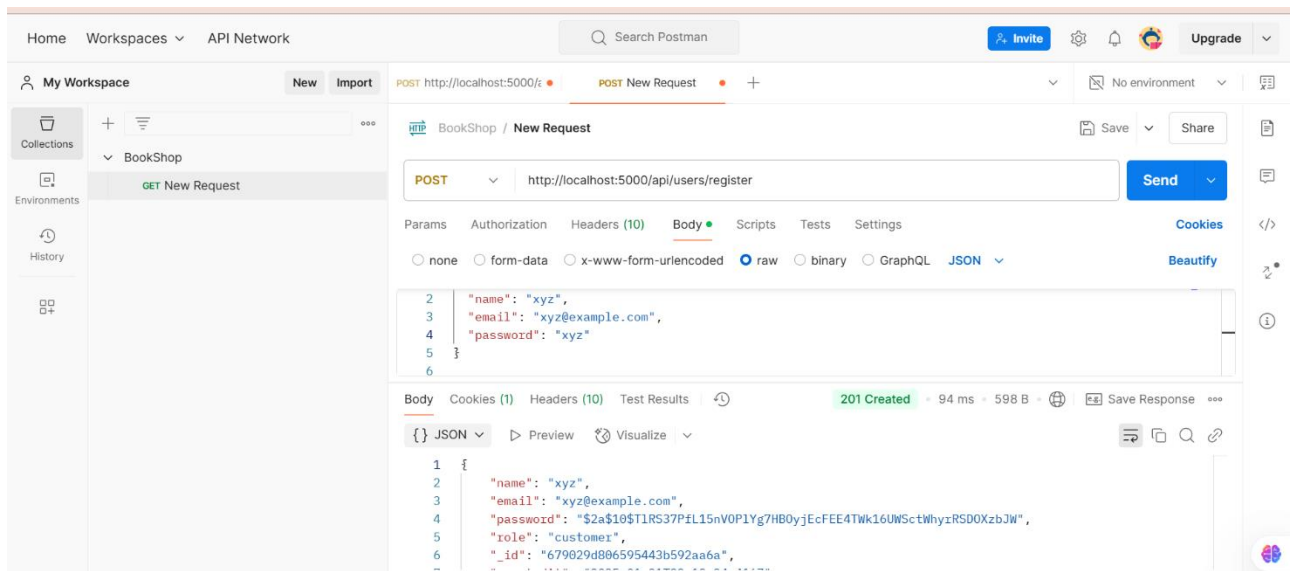
```

1 [
2   {
3     "_id": "678fe729be3551d40c72c1ce",
4     "name": "The Hunger Games",
5     "author": "Suzanne Collins",
6     "price": 100,
7     "category": "Horror",
8     "availability": true,
9     "image": "1737484073639-slide3.jpg",
10    "createdAt": "2025-01-21T18:27:53.751Z",
11    "updatedAt": "2025-01-21T18:27:53.751Z",
12    "__v": 0
13  },
14 ]

```

Online Console Postbot Runner Capture requests Auto-select agent Cookies Vault Trash

## Register User



Home Workspaces API Network Search Postman Invite Upgrade

My Workspace New Import POST http://localhost:5000/api/users/register POST New Request No environment

BookShop / New Request Save Share

POST http://localhost:5000/api/users/register Send

Params Authorization Headers (10) Body Scripts Tests Settings Cookies

Body Cookies (1) Headers (10) Test Results 201 Created 94 ms 598 B Save Response

```

2 {
3   "name": "xyz",
4   "email": "xyz@example.com",
5   "password": "xyz"
6 }

```

Body Cookies (1) Headers (10) Test Results 201 Created 94 ms 598 B Save Response

```

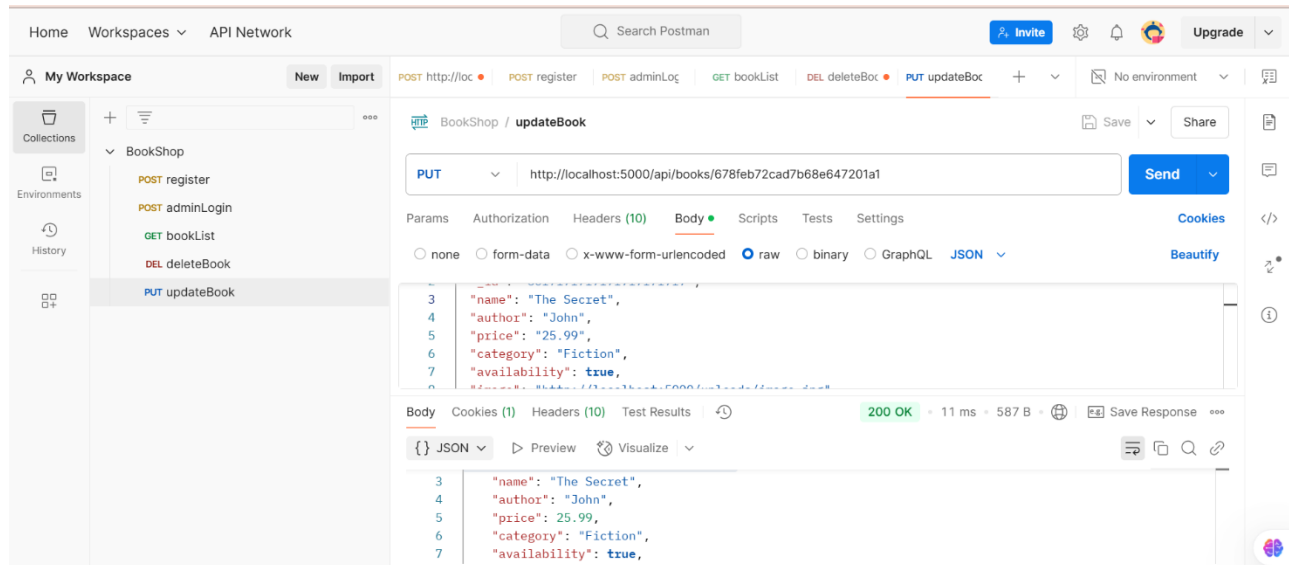
1 {
2   "name": "xyz",
3   "email": "xyz@example.com",
4   "password": "$2a$10$T1RS37P#L15nV0P1Yg7HB0yJEcFEE4TWk16UWSctWhyzRS0XzbJW",
5   "role": "customer",
6   "_id": "679829d886595443b592aa6a",

```

Online Console Postbot Runner Capture requests Auto-select agent Cookies Vault Trash

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### Update Book



### Installation and Setup

#### 1. Clone the repository:

```
git clone https://github.com/dilzaibofficial/Book-Store-With-Admin-dashboard-Mern-Stack.git
cd E-Bookstore
```

#### 2. Install dependencies:

```
npm install
cd frontend
npm install
```

#### 3. Set up environment variables:

Create a `.env` file in the root directory with the following variables:

```
MONGO_URI=<your-mongodb-uri>
SESSION_SECRET=<your-session-secret>
```

#### 4. Run the application:

```
npm run dev
```

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### Conclusion

The E-Bookstore project provides a comprehensive platform for users to browse and purchase books online, while also offering robust admin features for managing books and viewing sales data. The project leverages modern web technologies to deliver a seamless and user-friendly experience.

CCP Attributes mapped		
Attributes of Complex Problem Solving		Justification
WP1	Range of Conflicting Requirements	Balancing features like real-time ordering with a clean, responsive UI design.
WP2	Depth of Analysis required	Requires analyzing and designing RESTful APIs, database relationships, and flows.
WP3	Depth of Knowledge required	Involves integrating advanced front-end and back-end technologies.