



PROJECT TITLE:
CURIOS MINDS ONLINE BOOK STORE

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PROJECT SOURCES:

Git Hub link: <https://github.com/Jasoncarterjoseph/Online-Book-Store---MEAN.git>

OVERVIEW

A Secure SPA Online Book Store that lets you buy, rate and leave your comment for all the books that are available in the store. You can also see all your purchased book's history or create your own favorite books list.

TECH STACK: MEAN

M-MONGO

MongoDB is a document database used to build highly available and scalable internet applications. With its flexible schema approach, it's popular with development teams using agile methodologies.

E-EXPRESS

Express provides methods to specify what function is called for a particular HTTP verb (GET , POST , SET , etc.) and URL pattern ("Route"), and methods to specify what template ("view") engine is used, where template files are located, and what template to use to render a response.

A-ANGULAR

Angular is a platform and framework for building single-page client applications using HTML and TypeScript. Angular is written in TypeScript. It implements core and optional functionality as a set of TypeScript libraries that you import into your applications.

N-NODEJS

Node. js is primarily used for non-blocking, event-driven servers, due to its single-threaded nature. It's used for traditional web sites and back-end API services, but was designed with real-time, push-based architectures in mind.

FEATURES

- Anonymous users

- Login/Register
- View all books
- View books details, rating and comments

- Authenticated users

- Buy books
- Rate books
- Comment books
- View user profiles
- View his own purchases history
- Create favorite books list
- Can change his own avatar

- Admin users

- Add books to the store
- Edit books
- Delete books
- Edit/Delete offensive user comments
- Block/Unblock user from commenting
- Change unappropriate user avatars

CORE CONCEPTS OF ANUGLAR USED IN THE PROJECT:

- Wrapped each major feature into a module
- Lazy-loading for most of the modules so the app can start faster
- Shared module for components, directives and pipes that can be imported into any feature module
- Services for each major feature
- Custom directives
- Custom pipes
- TypeScript models
- Reactive forms for handling user input with validations
- Responsive
- Interceptors

LIBRARIES USED

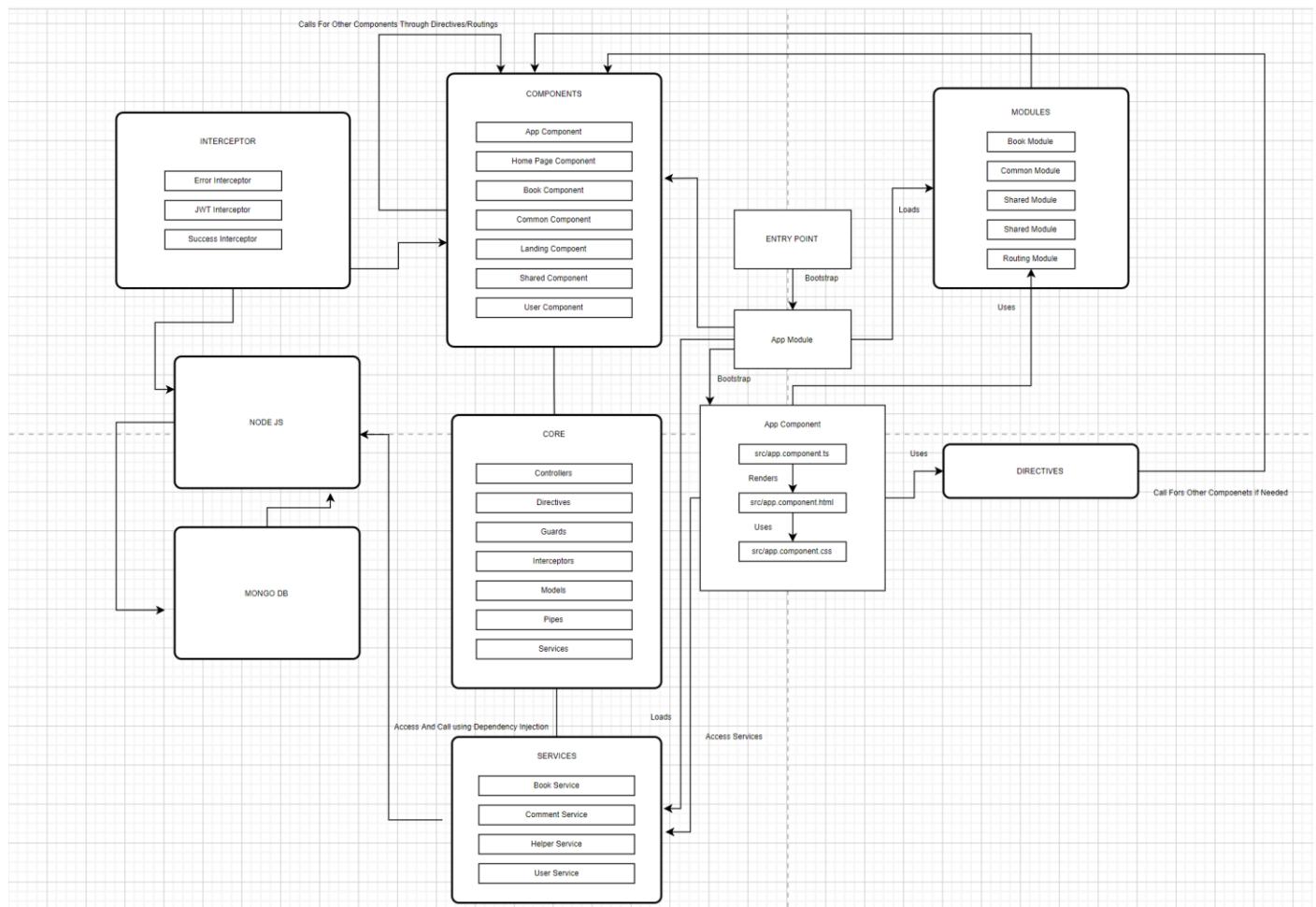
- BOOTSTRAP
- NGX-BOOTSTRAP
- NGX-PAGINATION
- VALIDATOR
- NGX TOASTER
- CORS
- RXJS
- JWT
- CRYPTOGRAPHY

PROJECT LEARNING/OUTCOME

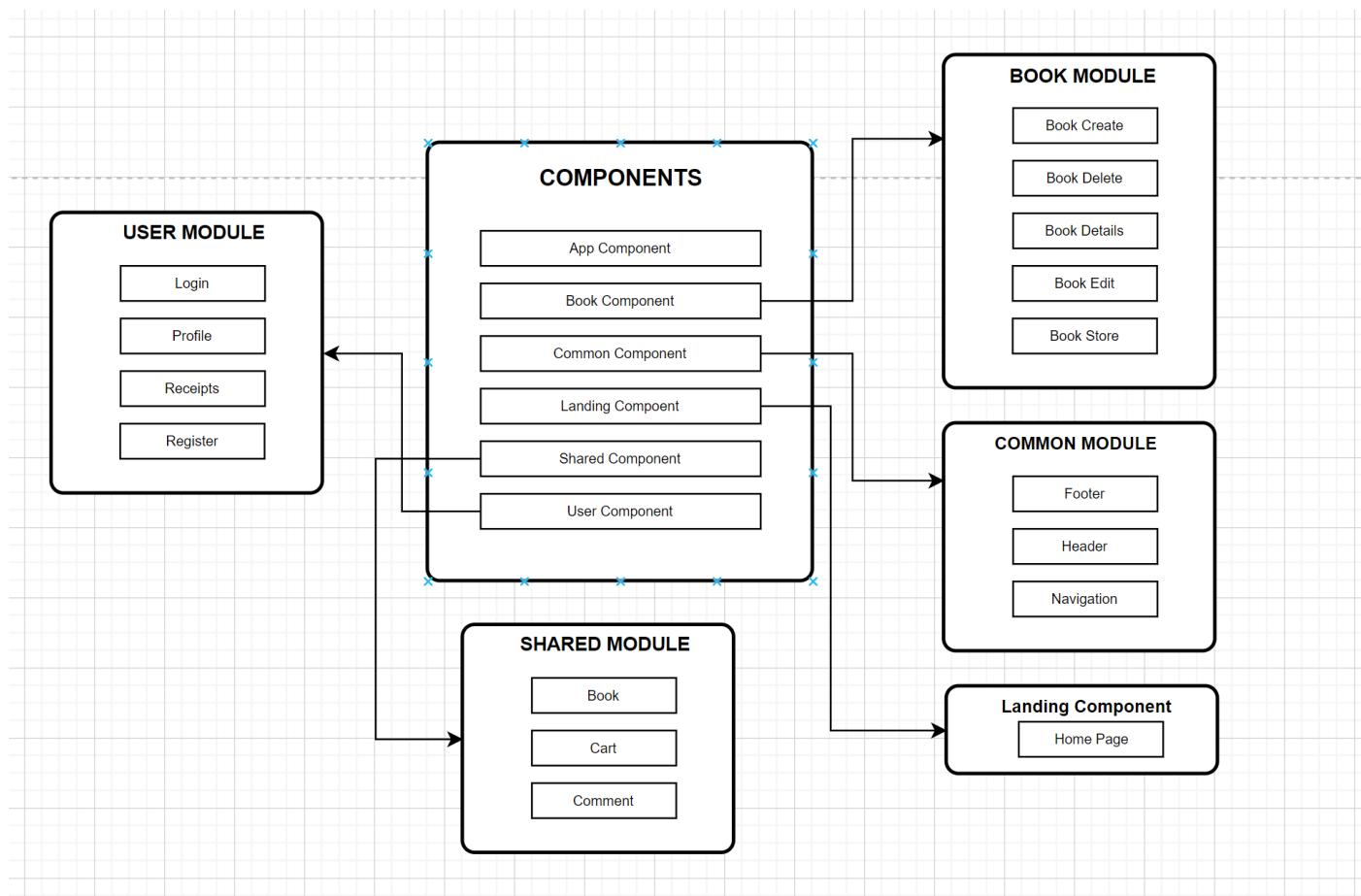
- Integrate Front End and Back End
- Implement a Real World Application

- Implement End to End Project
- Implement Security Features
- Actions Based on Roles (Admin/User)
- Validation of all User Input Forms
- Understand and Implement the Core Features of Angular
- Implement API Calls
- Fetching Backend Using API
- Data Storing and Handling

PROJECT ARCHITECTURE

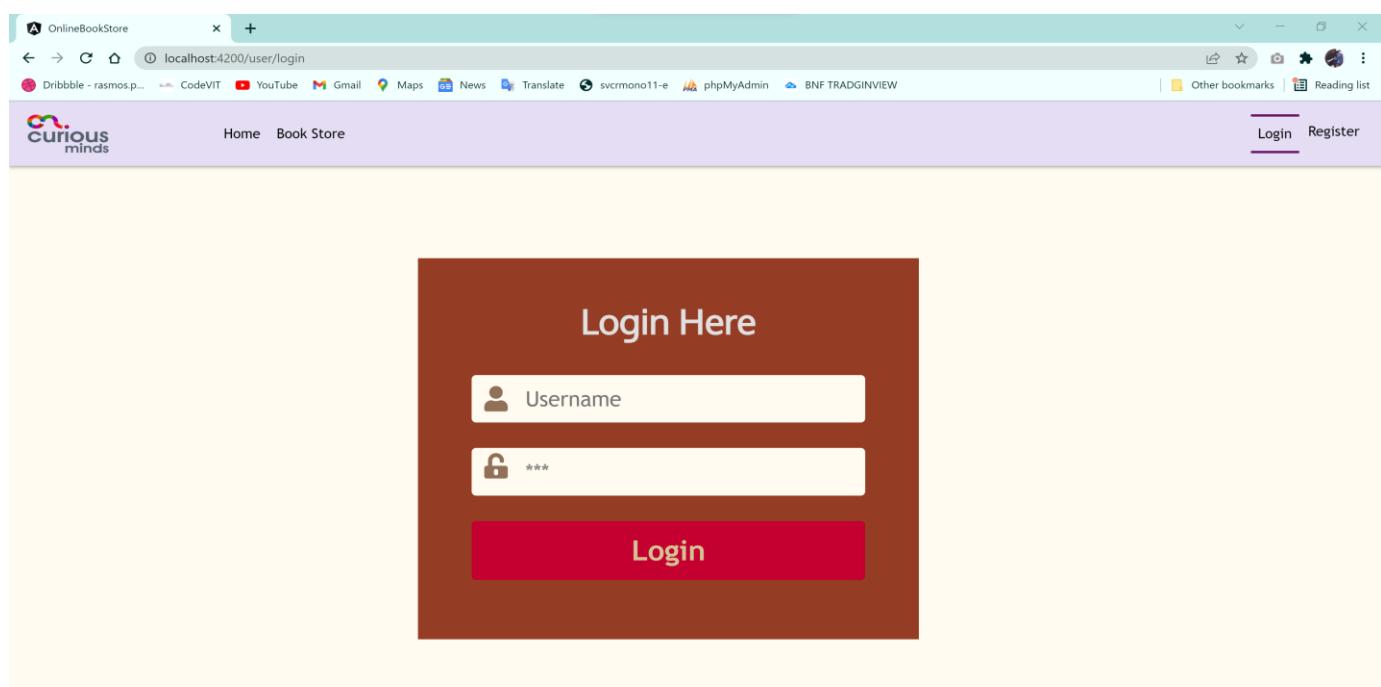


COMPONENT ARCHITECTURE



FRONT END WALKTHROUGH

1. LOGIN



2. REGISTER

Register Here

Username

Url to Avatar image (optional)

Email

Register

3. HOME PAGE

WELCOME TO CURIOUS MINDS BOOK STORE

title, author, genre, ISBN...

Most Purchased Books

Oathbringer (The Stormlight Archive #3)	Words of Radiance (The Stormlight Archive #2)	The Way of Kings (The Stormlight Archive #1)	The Hero of Ages (Mistborn #3)	The Well of Ascension (Mistborn #2)

4. BOOK STORE

The screenshot shows a web browser displaying the 'Book Store' section of an online bookstore. The page features a header with the logo 'curious minds' and navigation links for 'Home' and 'Book Store'. Below the header, there are five book cards arranged horizontally. Each card includes the book's title, author, a small image, a brief description, price, and two buttons: 'Add To Cart' and 'View More'.

Book Title	Author	Description	Price	Action Buttons
ALEX FERGUSON: MY AUTOBIOGRAPHY	Alex Ferguson	'A unique account of an iconic football legend'	₹ 1196	Add To Cart View More
INFERNO	Dan Brown	author of THE DA VINCI CODE Now a major motion picture	₹ 849	Add To Cart View More
MICHAEL CONNELLY THE CROSSING	Michael Connelly	Can Harry Bosch defend a man accused of murder without bringing everything he believes to light?	₹ 558	Add To Cart View More
METRO 2035	Dmitry Glukhovsky	THE FINAL INSTALLMENT OF THE CULT TRILOGY	₹ 1799	Add To Cart View More
A DANCE WITH DRAGONS	George R. R. Martin	NOW THE ACCLAIMED HBO® SERIES #1 NEW YORK TIMES BESTSELLING AUTHOR	₹ 1394	Add To Cart View More

5. ADMIN LOGIN

The screenshot shows the 'ADMIN HOME PAGE' of the online bookstore. At the top, there is a search bar with the placeholder 'title, author, genre, ISBN...' and a magnifying glass icon. Below the search bar, a header menu includes 'Home', 'Book Store', 'My Profile', 'My Purchase History', 'Create Book', 'Cart (1)', 'Hello, admin', and 'Logout'. The main content area features a section titled 'Most Purchased Books' followed by a grid of five book cards. Each card displays the book's title, author, a small image, a brief description, price, and two buttons: 'Add To Cart' and 'View More'.

Book Title	Author	Description	Price	Action Buttons
OATHBRINGER	Brandon Sanderson	BOOK THREE OF THE STORMLIGHT ARCHIVE	₹ 2018	Add To Cart View More
WORDS OF RADIANCE	Brandon Sanderson	BOOK TWO OF THE STORMLIGHT ARCHIVE	₹ 1291	Add To Cart View More
THE WAY OF KINGS	Brandon Sanderson	BOOK ONE OF THE STORMLIGHT ARCHIVE	₹ 1176	Add To Cart View More
THE HERO OF AGES	Brandon Sanderson	BOOK THREE OF MISTBORN	₹ 811	Add To Cart View More
THE WELL OF ASCENSION	Brandon Sanderson	BOOK TWO OF MISTBORN	₹ 1104	Add To Cart View More

6. PROFILE ADMIN ACCESS

The screenshot shows the Admin Profile page. At the top, there is a navigation bar with links for Home, Book Store, My Profile (which is active), My Purchase History, Create Book, Cart (1), Hello, admin Logout, and Other bookmarks/Reading list.

The main content area displays the following information:

- Profile Picture:** A black silhouette placeholder for the user's profile picture.
- Change avatar (URL to a new image):** A text input field for changing the profile picture.
- Submit:** A green button to submit changes.
- Role:** Admin
- Comments:** 2
- Latest comments by admin:**
 - Nice [Alex Ferguson: My Biography](#)
 - Very Good Book!! [Oathbringer \(The Stormlight Archive #3\)](#)
- Favorite Books List:** A section showing a book cover for "ALEX MY AUTOBIOGRAPHY FERGUSON ONE YEAR ON - FULLY UPDATED EDITION" by Sir Alex Ferguson.

7. PURCHASE HISTORY

The screenshot shows the Purchase History page. At the top, there is a navigation bar with links for Home, Book Store, My Profile (which is active), My Purchase History (active), Create Book, Cart (1), Hello, admin Logout, and Other bookmarks/Reading list.

The main content area displays the following information:

YOUR PURCHASE HISTORY

Receipt	Total price	Quantity
Receipt 1	₹ 558.00	558 x 1
Receipt 2	₹ 80.72	20.18 x 4

Items purchased:

- Receipt 1:** The Crossing (Harry Bosch #18) by Michael Connelly (Quantity: 1)
- Receipt 2:** Oathbringer (The Stormlight Archive #3) by Brandon Sanderson (Quantity: 4)

At the bottom, there is a footer with links for CURIOUS MINDS BOOK STORE and © 2022 BOOK STORE - JCJ.

8.ADMIN BOOK CREATE

Add New Book

The Fields: A Novel

Erin Young

Novel

2016

When Sergeant Riley Fisher, newly promoted to head of investigations for the Black Hawk County Sheriff's Office, arrives on the scene, an already horrific crime becomes personal when she discovers the victim was a childhood friend, connected to a dark past she thought she'd left behind.

<https://m.media-amazon.com/im/1250853362>

1250853362

348

\$ 1992.1

Create Book

8. BOOK DETAILS

The Fields: A Novel

★★★★★

based on 0 ratings

0 comments

Author: Erin Young

Genre: Novel

Release Year: 2016

ISBN: 1250853362

Pages: 348

Description: It starts with a body—a young woman found dead in an Iowa cornfield, on one of the few family farms still managing to compete with the giants of Big Agriculture. When Sergeant Riley Fisher, newly

... Read More

Price: ₹1992

Buy Book Add to favourites

Edit Book Delete Book

Comments

9. CART

The screenshot shows the 'Shopping Cart' page of the OnlineBookStore application. At the top, it displays the total price: ₹ 3,188.00. Below this, two books are listed:

- Alex Ferguson: My Biography** by Sir Alex Ferguson. The book cover features a portrait of Sir Alex Ferguson. The quantity is 1, with a delete icon.
- The Fields: A Novel** by Erin Young. The book cover shows a field of green plants. The quantity is 1, with a delete icon.

At the bottom of the cart area, there are payment method options: Google Pay and VISA **** 0397, along with a 'Continue shopping' button.

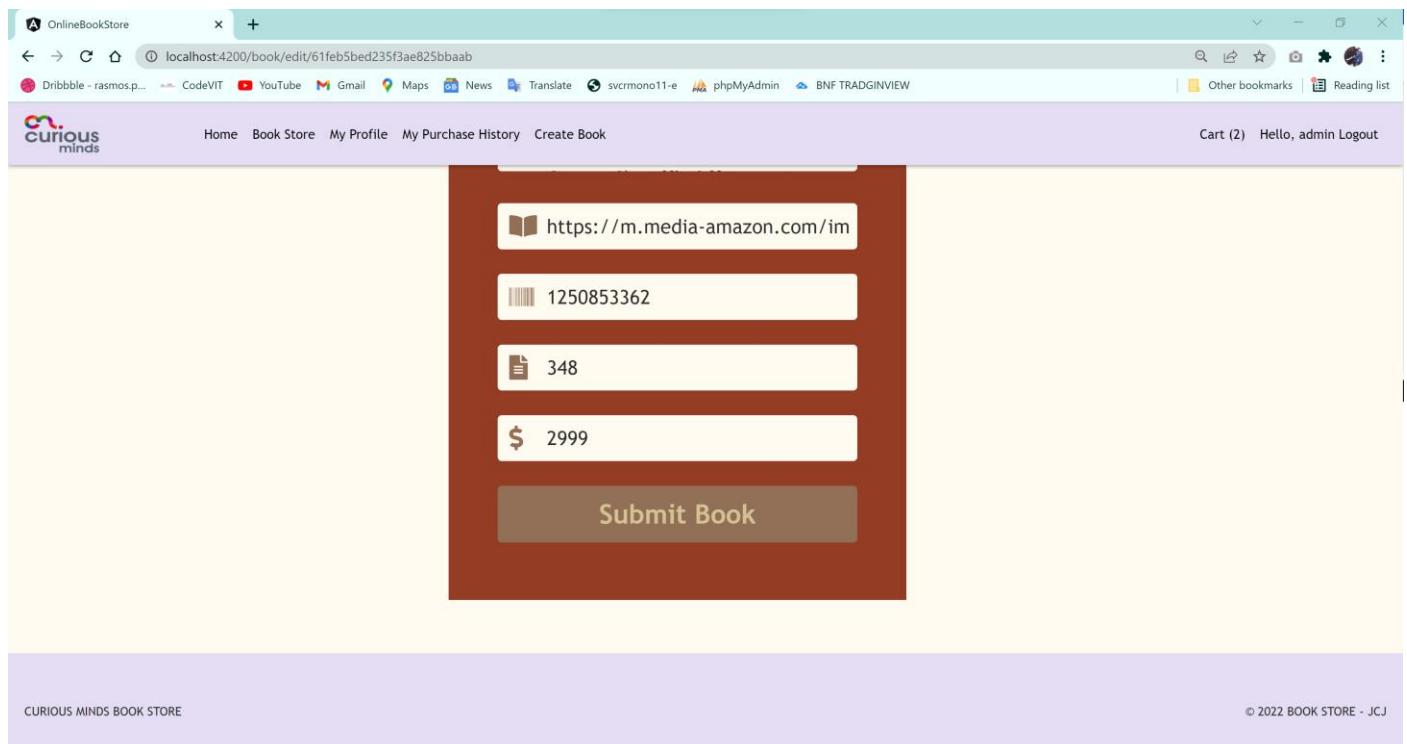
10. PAYMENT

The screenshot shows a payment selection dialog from Google Pay overlaid on the shopping cart page. The dialog is titled 'Select payment method' and lists two options:

- Visa **** 0397
- Add new credit or debit card

The dialog includes a 'CONTINUE' button at the bottom right. In the background, the shopping cart page is visible with the same two books and their respective quantities.

11. BOOK EDIT ADMIN

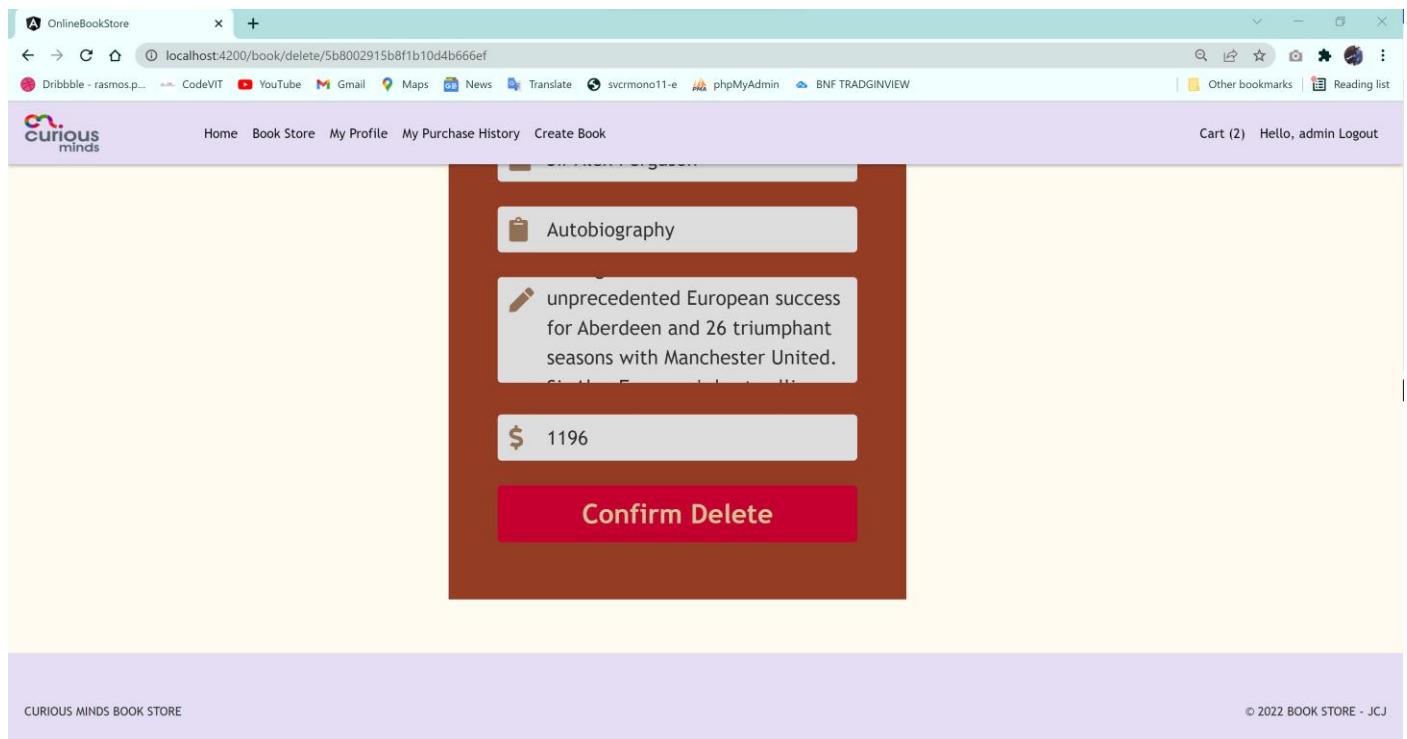


The screenshot shows a web browser window for 'OnlineBookStore' at the URL localhost:4200/book/edit/61feb5bed235f3ae825bbaab. The page title is 'Edit Book'. The main content area contains a form for updating a book's details:

- Image:** <https://m.media-amazon.com/im>
- ISBN:** 1250853362
- Pages:** 348
- Price:** \$ 2999
- Submit Book** button

The footer of the page includes the text 'CURIOUS MINDS BOOK STORE' and '© 2022 BOOK STORE - JCJ'.

12. DELETE BOOK ADMIN



The screenshot shows a web browser window for 'OnlineBookStore' at the URL localhost:4200/book/delete/5b8002915b8f1b10d4b666ef. The page title is 'Delete Book'. The main content area displays a book summary and a delete confirmation button:

- Title:** Autobiography
- Description:** unprecedented European success for Aberdeen and 26 triumphant seasons with Manchester United.
- Price:** \$ 1196
- Confirm Delete** button

The footer of the page includes the text 'CURIOUS MINDS BOOK STORE' and '© 2022 BOOK STORE - JCJ'.

13. COMMENTS SECTION

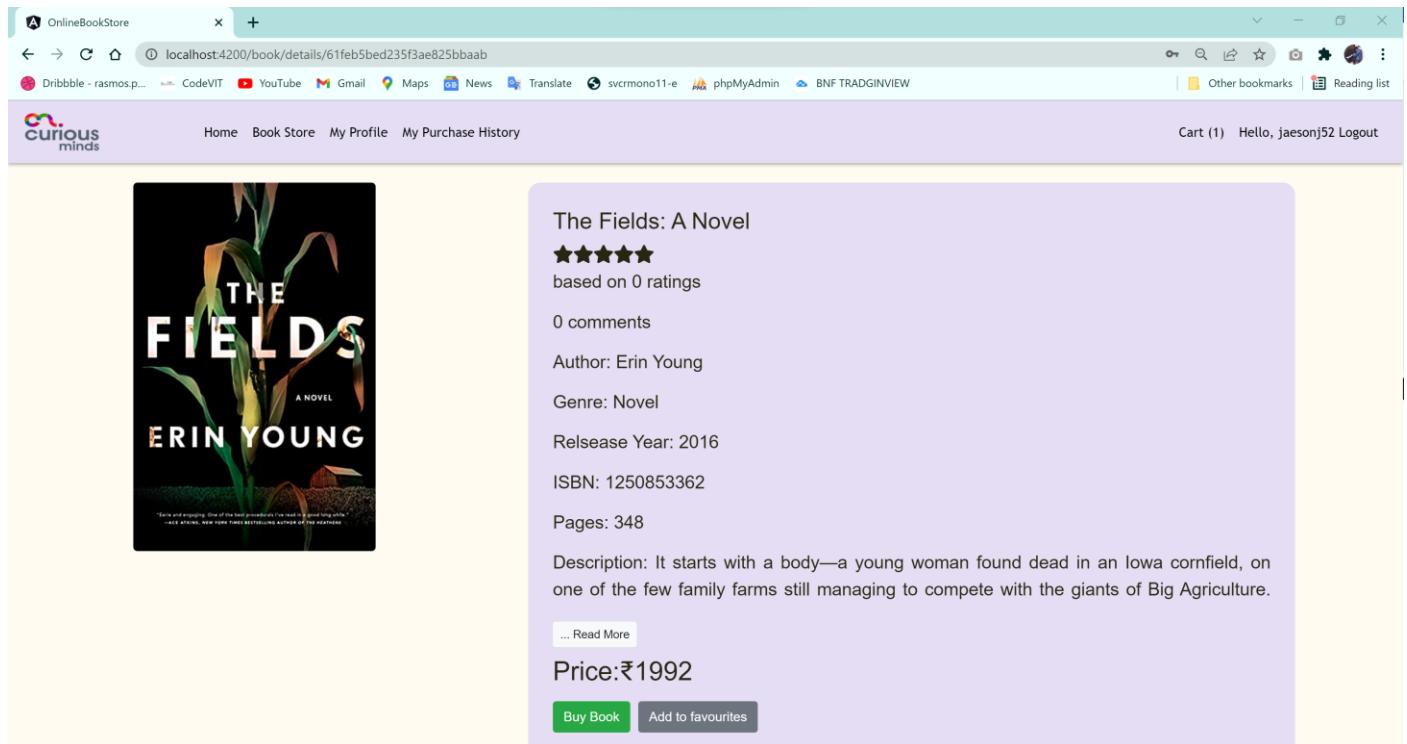
The screenshot shows a web browser window for 'OnlineBookStore' at localhost:4200/book/details/5b8002915b8f1b10d4b666ef. The page displays a book detail page for 'Price: ₹1196'. Below the price, there are four buttons: 'Buy Book' (green), 'Add to favourites' (grey), 'Edit Book' (yellow), and 'Delete Book' (red). A 'Comments' section follows, with a heading 'Comments' and a 'Add Comment' button. A comment by 'admin' (48 minutes ago) says 'Nice', with 'Edit Comment' and 'Delete Comment' buttons below it. A 'Load More...' button is visible at the bottom of the comments area. The footer includes 'CURIOUS MINDS BOOK STORE' and '© 2022 BOOK STORE - JCJ'.

13. USER ACCESS HOME PAGE

The screenshot shows a web browser window for 'OnlineBookStore' at localhost:4200/home. The page features a 'WELCOME TO CURIOUS MINDS BOOK STORE' header and a search bar with placeholder 'title, author, genre, ISBN...'. Below the header, a section titled 'Most Purchased Books' displays five book covers from Brandon Sanderson's 'The Stormlight Archive' and 'Mistborn' series. Each book is accompanied by its title, author, and price. The books are:

- Oathbringer (The Stormlight Archive #3) by Brandon Sanderson for ₹ 2018
- Words of Radiance (The Stormlight Archive #2) by Brandon Sanderson for ₹ 1291
- The Way of Kings (The Stormlight Archive #1) by Brandon Sanderson for ₹ 1176
- The Hero of Ages (Mistborn #3) by Brandon Sanderson for ₹ 811
- The Well of Ascension (Mistborn #2) by Brandon Sanderson for ₹ 1104

14.BOOK DETAILS USER ACCESS



The screenshot shows a web browser window with the URL localhost:4200/book/details/61feb5bed235f3ae825bbaab. The page displays a book cover for "THE FIELDS" by ERIN YOUNG. The cover features a stylized illustration of a field with a small house in the background. To the right of the cover, the book's title and author are listed, along with various details like genre, release year, and ISBN. Below the book info, there is a description of the plot, a price of ₹1992, and two buttons: "Buy Book" and "Add to favourites".

The Fields: A Novel

★★★★★

based on 0 ratings

0 comments

Author: Erin Young

Genre: Novel

Release Year: 2016

ISBN: 1250853362

Pages: 348

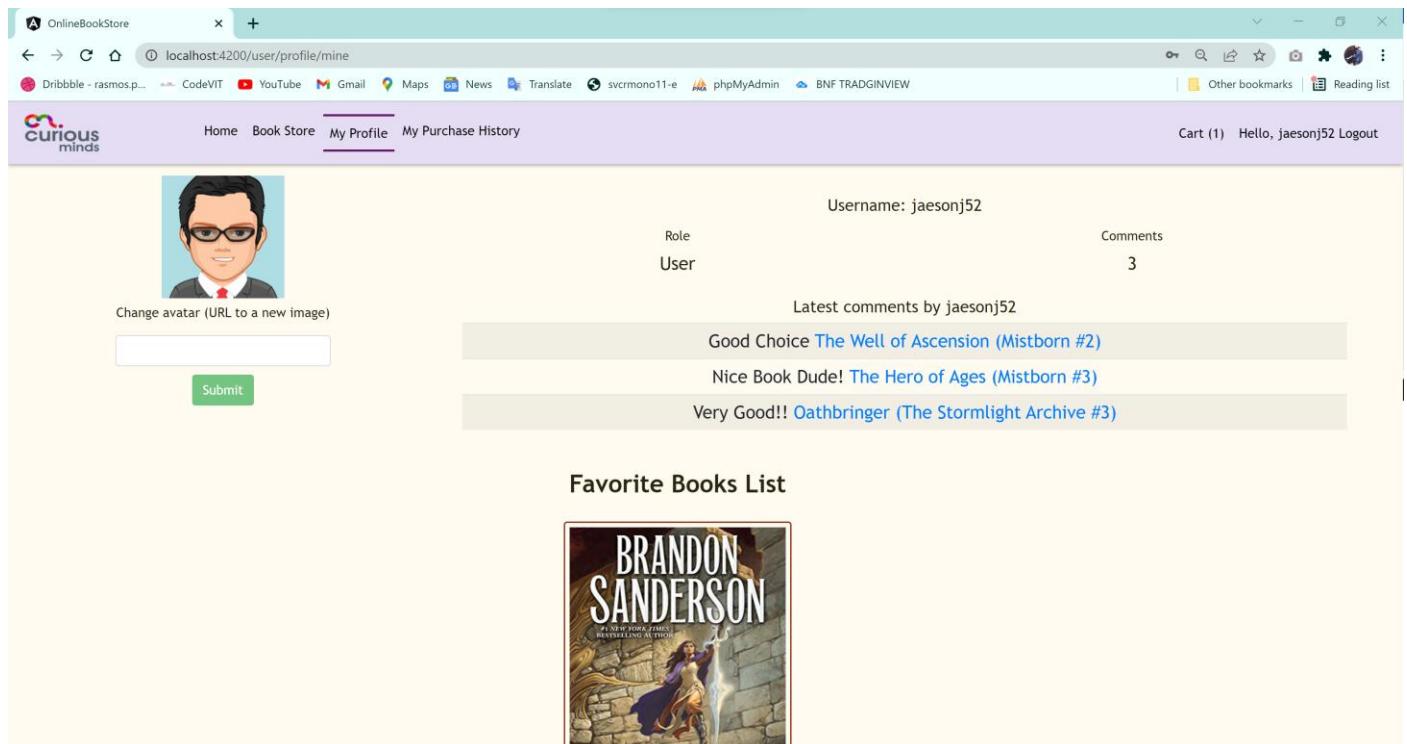
Description: It starts with a body—a young woman found dead in an Iowa cornfield, on one of the few family farms still managing to compete with the giants of Big Agriculture.

... Read More

Price: ₹1992

[Buy Book](#) [Add to favourites](#)

15.PROFILE USER ACCESS



The screenshot shows a web browser window with the URL localhost:4200/user/profile/mine. The page displays a user profile for "jaesonj52". It includes a placeholder for an avatar, a "Change avatar" link, and a "Submit" button. On the right, it shows the username "jaesonj52", the role "User", and the number of comments (3). Below this, a section titled "Latest comments by jaesonj52" lists three recent comments from the user. At the bottom, there is a heading "Favorite Books List" followed by an image of a book cover for "The Well of Ascension" by Brandon Sanderson.

Username: jaesonj52

Role: User

Comments: 3

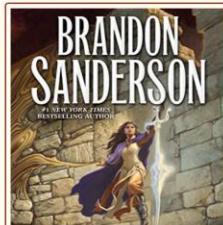
Latest comments by jaesonj52

Good Choice [The Well of Ascension \(Mistborn #2\)](#)

Nice Book Dude! [The Hero of Ages \(Mistborn #3\)](#)

Very Good!! [Oathbringer \(The Stormlight Archive #3\)](#)

Favorite Books List



POST MAN API CALLS

1.LOGIN

The screenshot shows a Postman request for 'localhost:9000/user/login' using the 'POST' method. The 'Body' tab is selected, showing a JSON payload with 'username' and 'password' fields both set to 'admin'. The response status is 200 OK, with a message of 'Login successful!' and a long token string in the 'data' field.

```
1
2   "username": "admin",
3   "password": "admin"
4
5
```

Body Cookies Headers (8) Test Results

Pretty Raw Preview Visualize JSON ↻

```
1
2   "message": "Login successful!",
3   "data": "eyJzdWIiOnslQiojIiUzI1NiisInR5cIi6IkpxVCJ9.
4     eyJzdWIiOnslQiojIi2MZhZGVmZTk1NDNkN2YwZDgwMDM20wMiLCJ1c2VybmtZSI6ImFkbWluIiwiYXhdGFyIjoiaHR0cHM6Ly9pLmtZ3VyLmNvbS80czVxTphVLnBuZ
      yIsImZlQ29tbWVudHNCbG9ja2VkJpmYWxzSwiaXBG1pbii6dHJ1ZSwicm9sZXMiolsiNjFmYWR1ZmU5NTQzM0dmMGQ4MDAzNjk3Ii19LCJpYXQiOje2NDQwMzcjOTUsIm
        V4cCI6MjI0ODg2NzI5Nx0.G0sKBT4RyqdmKwfhsa2J0ggmu8taDt19LtIdvWmKE"
```

SUCCESS

The screenshot shows a Postman interface with the following details:

- Method:** POST
- URL:** localhost:9000/user/login
- Body Type:** JSON (selected)
- Body Content:**

```
1 {
2   "username": "admin",
3   "password": "admin"
4 }
```
- Status:** Status: 400 Bad Request

FAILURE

2.REGISTER

POST localhost:9000/user/register

Body

```

1 ..... "username": "Jason Carter",
2 ..... "avatar": "",
3 ..... "password": "123",
4 ..... "confirmPassword": "123",
5 ..... "email": "jasoncarter@gmail.com"
6
7
  
```

Status: 200 OK Time: 23 ms Size: 696 B Save Response

Pretty Raw Preview Visualize JSON

```

1 ..... "message": "Registration successful!",
2 ..... "data": "eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.
3 ..... eyJzdWIiOnsiaWQiOiI2MwZlMDdmYwQyMzMvM2F100I1YmI5MjUiLCJ1c2VybmtZSI6Ikphc29uIENhcnRlcIIsImF2YXRhcI6Imh0dHBz0i0vaS5pbWd1ci5jb20vNHN1c
4 ..... Ux6VS5wbmc1LCJpc0NvbWilbnRzQmxvY2t1ZCI6ZmFsc2UsImlzQWRtaW410mZhbHN1LCyb2x1cyI6WyI2MwZhZGVmZTk1NDNKN2YwZDgwMDM2OTkiXX0sImlhcdCi6MTY0ND
5 ..... AzoDEzOCwiZXhwIjjoyMjQ40DM4MTM4fQ.siMTxtg8wb1F3FWCNUQqEg3oLAsEvd5EL3Hv6M06n18"
6
7
  
```

SUCCESS

POST localhost:9000/user/register

Body

```

1 ..... "username": "Jason Carter",
2 ..... "avatar": "",
3 ..... "password": "123",
4 ..... "confirmPassword": "123",
5 ..... "email": "jaesonj52@gmail.com"
6
7
  
```

Status: 400 Bad Request

Pretty Raw Preview Visualize JSON

```

1 ..... "message": "Registration failed!",
2 ..... "errors": {
3 .....   "taken": "Username or email already taken"
4 ..... }
5
6
  
```

FAILURE

3.HOME PAGE

MOST PURCHASED BOOKS

Home Page / http://localhost:9000/book/search?sort={"purchasesCount":-1}&limit=5

GET http://localhost:9000/book/search?sort={"purchasesCount":-1}&limit=5

Params Authorization Headers (6) Body Pre-request Script Tests Settings Cookies

Query Params

KEY	VALUE	DESCRIPTION	...	Bulk Edit
<input checked="" type="checkbox"/> sort	{"purchasesCount": -1}			
<input checked="" type="checkbox"/> limit	5			
Key	Value	Description		

Body Cookies Headers (8) Test Results

Pretty Raw Preview Visualize JSON

```

8
9
10
11
12
13
14
15
16
17
18
19
    "ratedCount": 0,
    "ratedBy": [],
    "purchasesCount": 20,
    "comments": [
        "61fbfae3127310bf2944417f",
        "61fc20d127310bf294462d3"
    ],
    "title": "Oathbringer (The Stormlight Archive #3)",
    "author": "Brandon Sanderson",
    "genre": "Fantasy",
    "year": 2018,
    "description": "In Oathbringer, the third volume of the New York Times bestselling Stormlight Archive, humanity faces a new Desolation with the return of the Voidbringers, a foe with numbers as great as their thirst for vengeance. Dalinar Kholin's

```

Status: 200 OK Time: 10 ms Size: 5.21 KB Save Response

HIGHLY RATED BOOKS

GET http://localhost:9000/book/search?sort={"currentRating":-1}&limit=5

Params Authorization Headers (6) Body Pre-request Script Tests Settings Cookies

Query Params

KEY	VALUE	DESCRIPTION	...	Bulk Edit
<input checked="" type="checkbox"/> sort	{"currentRating": -1}			
<input checked="" type="checkbox"/> limit	5			
Key	Value	Description		

Body Cookies Headers (8) Test Results

Pretty Raw Preview Visualize JSON

```

8
9
10
11
12
13
14
15
16
    "ratedCount": 2,
    "ratedBy": [],
    "purchasesCount": 0,
    "comments": [
        "title": "1984",
        "author": "George Orwell",
        "genre": "Classics",
        "year": 1948,
        "description": "In 1984, London is a grim city in the totalitarian state of Oceania where Big Brother is always watching you and the Thought Police can practically read your mind. Winston Smith is a man in grave danger for the simple reason that his memory still functions. Drawn into a forbidden love affair, Winston finds the courage to join a secret revolutionary organization called The Brotherhood, dedicated to the destruction of the Party. Together with his beloved Julia, he hazards his life in a deadly match against the powers that be."
    ],

```

Status: 200 OK Time: 12 ms Size: 5.01 KB Save Response

LATEST BOOKS

GET http://localhost:9000/book/search?sort={"creationDate":-1}&limit=5

Params Authorization Headers (6) Body Pre-request Script Tests Settings Cookies

Query Params

KEY	VALUE	DESCRIPTION	...	Bulk Edit
<input checked="" type="checkbox"/> sort	{"creationDate": -1}			
<input checked="" type="checkbox"/> limit	5			
Key	Value	Description		

Body Cookies Headers (8) Test Results

Pretty Raw Preview Visualize JSON

```

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
    "message": "",
    "data": [
        {
            "_id": "5b0002915b8ff1b18d4b666ef",
            "currentRating": 0,
            "ratingPoints": 0,
            "ratedCount": 0,
            "ratedBy": [],
            "purchasesCount": 0,
            "comments": [],
            "title": "Alex Ferguson: My Biography",
            "author": "Sir Alex Ferguson",
            "genre": "Autobiography",
            "year": 2014,

```

Status: 200 OK Time: 13 ms Size: 6.04 KB Save Response

4. BOOK STORE

GET [localhost:9000/book/search?sort={"creationDate":-1}&skip=0&limit=15](localhost:9000/book/search?sort={) Send

Params Authorization Headers (6) Body Pre-request Script Tests Settings Cookies

Query Params		Description	
KEY	VALUE	DESCRIPTION	Bulk Edit
<input checked="" type="checkbox"/> sort	{"creationDate": -1}		
<input checked="" type="checkbox"/> skip	0		
<input checked="" type="checkbox"/> limit	15		
Key	Value	Description	

Body Cookies Headers (8) Test Results Status: 200 OK Time: 13 ms Size: 17.52 KB Save Response

Pretty Raw Preview Visualize JSON

```

15
16   "year": 2014,
17   "description": "Sir Alex Ferguson's compelling story is always honest and revealing he reflects on his managerial career that
18     embraced unprecedented European success for Aberdeen and 26 triumphant seasons with Manchester United. Sir Alex Ferguson's
19     best-selling autobiography has now been updated to offer reflections on events at Manchester United since his retirement as
       well as his teachings at the Harvard Business School, a night at the Oscars and a boat tour round the Hebrides, where he
       passed unrecognised. The extra material adds fresh insights and detail on his final years as United's manager. Both the
       psychology of management and the detail of football strategy at the top level can be complex matters but no-one has
       explained them in a more interesting and accessible way for the general reader than Sir Alex does here.",
      "cover": "https://i.imgur.com/JCXkMpy.jpg",
      "isbn": "034091940X",
      "namesCount": 416.
    
```

5. PROFILE PAGE

ACCESSING PROFILE WITHOUT TOKEN

User Profile / Not Logged In Save

GET <localhost:9000/user/profile/mine> Send

Params Authorization Headers (6) Body Pre-request Script Tests Settings Cookies

Query Params		Description	
KEY	VALUE	DESCRIPTION	Bulk Edit
Key	Value	Description	

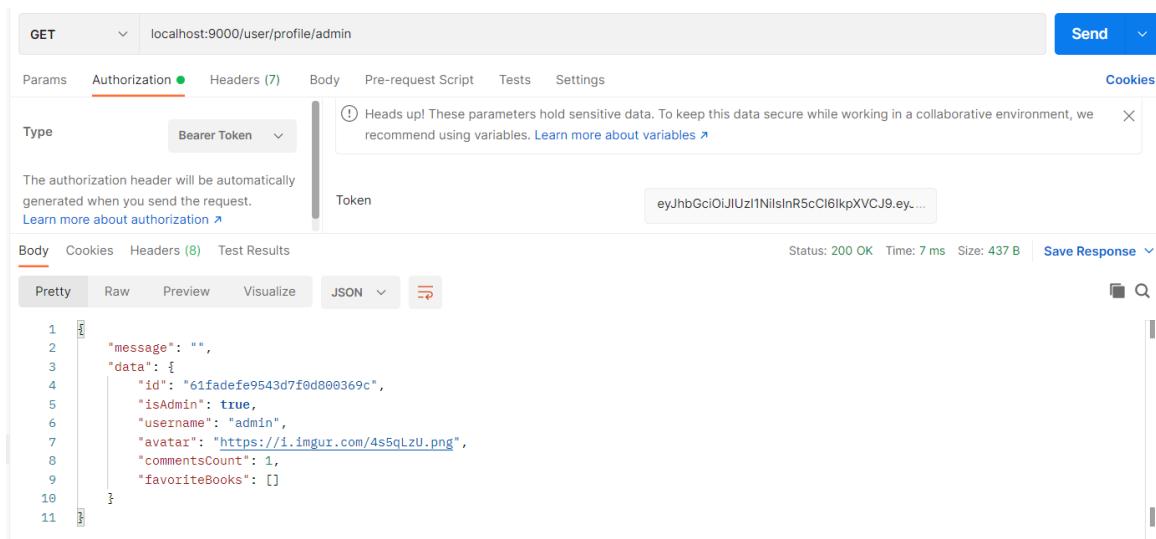
Body Cookies Headers (8) Test Results Status: 401 Unauthorized Time: 5 ms Size: 331 B Save Response

Pretty Raw Preview Visualize JSON

```

1
2   "message": "You need to be logged in to access this!"
3
  
```

ADMIN PROFILE



GET localhost:9000/user/profile/admin

Authorization (Bearer Token)

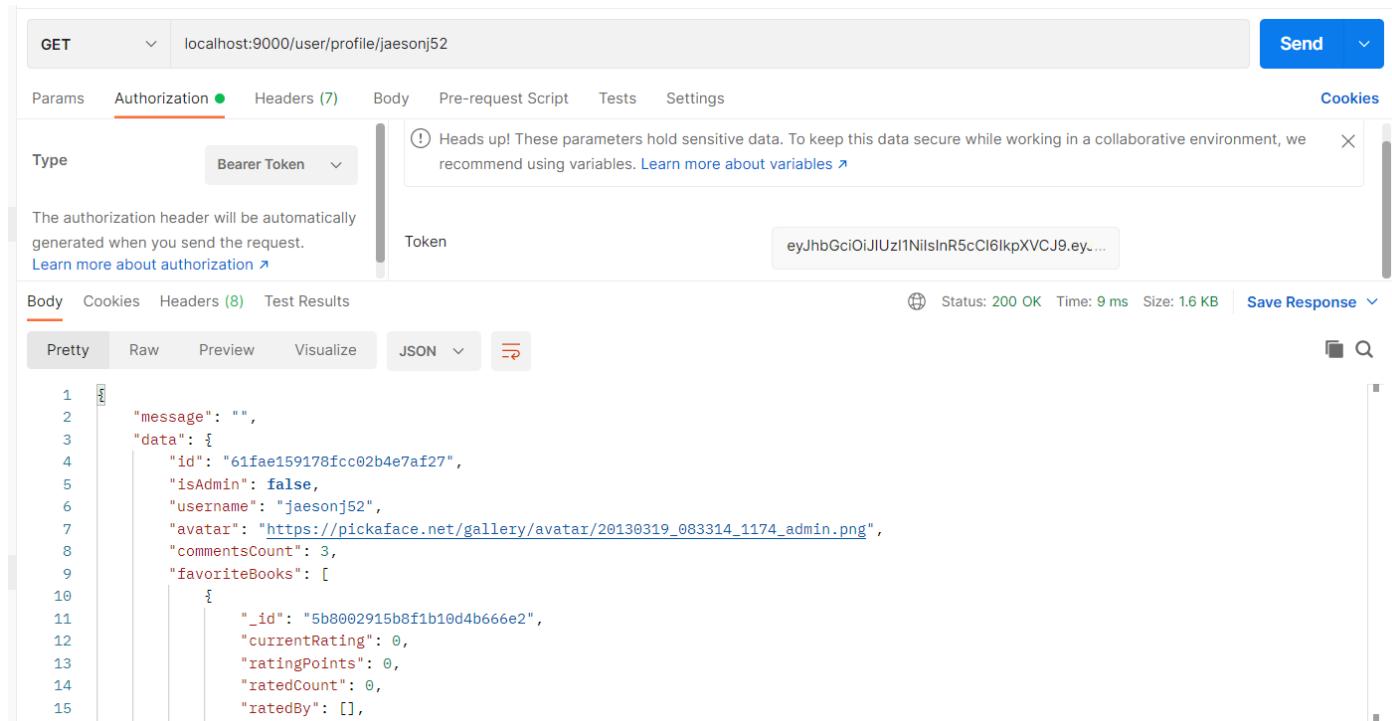
```

1 "message": "",
2 "data": {
3     "id": "61fademfe9543d7f0d800369c",
4     "isAdmin": true,
5     "username": "admin",
6     "avatar": "https://i.imgur.com/4s5qLzU.png",
7     "commentsCount": 1,
8     "favoriteBooks": []
9 }
10
11

```

Status: 200 OK Time: 7 ms Size: 437 B Save Response

USER PROFILE



GET localhost:9000/user/profile/jaesonj52

Authorization (Bearer Token)

```

1 "message": "",
2 "data": {
3     "id": "61fae159178fcc02b4e7af27",
4     "isAdmin": false,
5     "username": "jaesonj52",
6     "avatar": "https://pickaface.net/gallery/avatar/20130319_083314_1174_admin.png",
7     "commentsCount": 3,
8     "favoriteBooks": [
9         {
10             "_id": "5b8002915b8f1b10d4b666e2",
11             "currentRating": 0,
12             "ratingPoints": 0,
13             "ratedCount": 0,
14             "ratedBy": []
15         }
16     ]
17 }
18
19
20

```

Status: 200 OK Time: 9 ms Size: 1.6 KB Save Response

6.PURCHASE HISTORY

GET http://localhost:9000/user/purchaseHistory

Authorization: Bearer Token

Body:

```

1 "message": "",
2 "data": [
3     {
4         "_id": "61fd7e58cc8b7dff7d1c719b",
5         "user": "61fae159178fcc02b4e7af27",
6         "productsInfo": [
7             {
8                 "id": "5b8002915b8f1b10d4b666ea",
9                 "title": "The Da Vinci Code (Robert Langdon #2)",
10                "author": "Dan Brown",
11                "cover": "https://i.imgur.com/SCLWHCl.jpg",
12                "price": 799,
13                "qty": 1
14            }
15        ]
16    }
17 ]
18 
```

Status: 200 OK Time: 6 ms Size: 1.41 KB Save Response

7.BOOK CRED

BOOK CREATE

ACCESSING WITH UESR ACCESS

POST http://localhost:9000/book/add

Authorization: Bearer Token

Body:

```

1 "message": "You need to be an admin to access this!"
2 
```

Status: 401 Unauthorized Time: 6 ms Size: 330 B Save Response

ACCESSING WITH ADMIN ACCESS WITH FORM VALIDATION

The screenshot shows a Postman request to `http://localhost:9000/book/add` with a POST method. The 'Params' tab is selected, showing a single query parameter 'Key' with value 'Value'. The 'Body' tab is selected, showing a JSON response with validation errors:

```

1 {
2   "message": "Book form validation failed!",
3   "errors": {
4     "title": "Please provide title.",
5     "author": "Please provide author.",
6     "genre": "Please provide genre.",
7     "year": "Please provide book release year.",
8     "description": "Description must be at least 10 symbols long.",
9     "cover": "Please provide proper url for the book's cover",
10    "isbn": "Please provide a valid ISBN.",
11    "pagesCount": "Please provide number of pages.",
12    "price": "Please provide book price."
13  }
14 }

```

The status bar indicates `Status: 400 Bad Request` and `Time: 5 ms`.

ADD BOOK WITH ADMIN ACCESS

The screenshot shows a Postman request to `http://localhost:9000/book/add` with a POST method. The 'Body' tab is selected, showing a JSON payload for a book creation:

```

as his teachings at the Harvard Business School, a night at the Oscars and a boat tour round the Hebrides, where he passed
unrecognised. The extra material adds fresh insights and detail on his final years as United's manager. Both the psychology of
management and the detail of football strategy at the top level can be complex matters but no-one has explained them in a more
interesting and accessible way for the general reader than Sir Alex does here.,
7     "cover": "https://i.imgur.com/JCXkMpy.jpg",
8     "isbn": "034091940X",
9     "pagesCount": "416",
10    "price": "110€"

```

The status bar indicates `Status: 200 OK`, `Time: 15 ms`, `Size: 1.47 KB`, and `Save Response`.

The 'Body' tab is selected, showing the response JSON:

```

1 {
2   "message": "Book created successfully!",
3   "data": {
4     "title": "Alex",
5     "author": "Sir Alex Ferguson",
6     "genre": "Autobiography",
7     "year": 2014,
8     "description": "Sir Alex Ferguson's compelling story is always honest and revealing he reflects on his managerial career that
      embraced unprecedented European success for Aberdeen and 26 triumphant seasons with Manchester United. Sir Alex Ferguson's
      best-selling autobiography has now been updated to offer reflections on events at Manchester United since his retirement as well
      as his teachings at the Harvard Business School, a night at the Oscars and a boat tour round the Hebrides, where he passed
      unrecognised. The extra material adds fresh insights and detail on his final years as United's manager. Both the psychology of
      management and the detail of football strategy at the top level can be complex matters but no-one has explained them in a more
      interesting and accessible way for the general reader than Sir Alex does here."
9   }
10 }

```

The status bar indicates `Runner` and `Trash`.

EDIT BOOK WITH ADMIN ACCESS

The screenshot shows a POST request to `http://localhost:9000/book/edit/61fe2445d235f3ae825bb9cd`. The request body contains the following JSON:

```

1
2   ...
3   ...
4   ...
5   ...
6   ...
7   ...
8   ...
9
  "title": "Alex 2",
  "author": "Sir Alex Ferguson",
  "genre": "Autobiography",
  "year": "2014.",
  "description": "Sir Alex Ferguson's compelling story is always honest and revealing he reflects on his managerial career that embraced unprecedented European success for Aberdeen and 26 triumphant seasons with Manchester United. Sir Alex Ferguson's best-selling autobiography has now been updated to offer reflections on events at Manchester United since his retirement as well as his teachings at the Harvard Business School, a night at the Oscars and a boat tour round the Hebrides, where he passed unrecognised. The extra material adds fresh insights and detail on his final years as United's manager. Both the psychology of management and the detail of football strategy at the top level can be complex matters but no-one has explained them in a more interesting and accessible way for the general reader than Sir Alex does here."

```

The response status is 200 OK, with a message: "Book edited successfully!" and the updated book data.

DELETE BOOK WITH ADMIN ACCESS

The screenshot shows a DELETE request to `http://localhost:9000/book/delete/61fe2445d235f3ae825bb9cd`. The request body is empty. A note about sensitive data in the authorization header is shown.

The response status is 200 OK, with a message: "Book deleted successfully." and the deleted book data.

VIEW BOOKS WITH ID

The screenshot shows a Postman interface with a DELETE request to `http://localhost:9000/book/delete/61fe2445d235f3ae825bb9cd`. The Authorization tab is selected, showing a Bearer Token. The response body is a JSON object with a message and data fields. The message is "Book deleted successfully." and the data field contains the deleted book's details: `_id": "61fe2445d235f3ae825bb9cd", "title": "Alex 2", "author": "Sir Alex Ferguson", "genre": "Autobiography", "year": 2014, "description": "Sir Alex Ferguson's compelling story is always honest and revealing he reflects on his managerial career that embraced unprecedented European success for Aberdeen and 26 triumphant seasons with Manchester United. Sir Alex Ferguson's best-selling autobiography has now been updated to offer reflections on events at Manchester United since his retirement as well as his teachings at the Harvard Business School, a night at the Oscars and a boat tour round the Hebrides, where he passed unrecognised. The extra material adds fresh insights and detail on his final years as United's manager. Both the psychology of management and the detail of football strategy at the top level can be complex matters but no-one has explained them in a more interesting and accessible way for the general reader than Sir Alex does here."`

```

1   "message": "Book deleted successfully.",
2   "data": {
3     "_id": "61fe2445d235f3ae825bb9cd",
4     "title": "Alex 2",
5     "author": "Sir Alex Ferguson",
6     "genre": "Autobiography",
7     "year": 2014,
8     "description": "Sir Alex Ferguson's compelling story is always honest and revealing he reflects on his managerial career that
      embraced unprecedented European success for Aberdeen and 26 triumphant seasons with Manchester United. Sir Alex Ferguson's
      best-selling autobiography has now been updated to offer reflections on events at Manchester United since his retirement as well
      as his teachings at the Harvard Business School, a night at the Oscars and a boat tour round the Hebrides, where he passed
      unrecognised. The extra material adds fresh insights and detail on his final years as United's manager. Both the psychology of
      management and the detail of football strategy at the top level can be complex matters but no-one has explained them in a more
      interesting and accessible way for the general reader than Sir Alex does here."
9

```

View Books with Wrong ID

The screenshot shows a Postman interface with a GET request to `http://localhost:9000/book/details/61fe2446d235f3ae825bb9cd`. The Headers tab is selected, showing a Content-Type of application/json. The response status is 400 Bad Request, with the message "There is no book with the given id in our database."

KEY	VALUE	DESCRIPTION	...	Bulk Edit
Key	Value	Description		

```

1   "message": "There is no book with the given id in our database."
2
3

```

BACK END WALKTHROUGH

1. BOOKS

MongoDB Compass - localhost:27017/OnlineBookStore.books

Local

9 DBS 23 COLLECTIONS

HOST localhost:27017

CLUSTER Standalone

EDITION MongoDB 5.0.5 Community

Filter your data

OnlineBookStore

- books
- carts
- comments
- receipts
- roles
- users
- admin
- bajajdb
- conFusion
- config
- local

Documents Aggregations Schema Explain Plan Indexes Validation

OnlineBookStore.books

DOCUMENTS 30 STORAGE SIZE 36.9KB AVG. SIZE 1.1KB INDEXES 2 TOTAL SIZE 73.7KB AVG. SIZE 36.9KB

FILTER { field: 'value' } OPTIONS FIND RESET REFRESH

ADD DATA VIEW

Displaying documents 1 - 20 of 31

```
_id: ObjectId("5b80028f5b0ff1b10d4b666d1")
currentRating: 0
ratingPoints: 0
ratedCount: 0
ratedBy: Array
purchasesCount: 12
comments: Array
title: "The Final Empire (Mistborn #1)"
author: "Brandon Sanderson"
genre: "Fantasy"
year: 2006
description: "For a thousand years the ash fell and no flowers bloomed. For a thousa..."
cover: "https://i.imgur.com/VrtPmP2.jpg"
isbn: "9780531178X"
pagesCount: 541
price: 575
creationDate: 2022-01-29T13:05:19.016+00:00
__v: 0

_id: ObjectId("5b80029b5b0ff1b10d4b666d2")
currentRating: 0
ratingPoints: 0
ratedCount: 0
ratedBy: Array
purchasesCount: 13
comments: Array
title: "The Well of Ascension (Mistborn #2)"
author: "Brandon Sanderson"
genre: "Fantasy"
```

2. CARTS

MongoDB Compass - localhost:27017/OnlineBookStore.carts

Local

9 DBS 23 COLLECTIONS

HOST localhost:27017

CLUSTER Standalone

EDITION MongoDB 5.0.5 Community

Filter your data

OnlineBookStore

- books
- carts
- comments
- receipts
- roles
- users
- admin
- bajajdb
- conFusion
- config
- local

Documents Aggregations Schema Explain Plan Indexes Validation

OnlineBookStore.carts

DOCUMENTS 6 STORAGE SIZE 20.5KB AVG. SIZE 84B INDEXES 1 TOTAL SIZE 36.9KB AVG. SIZE 36.9KB

FILTER { field: 'value' } OPTIONS FIND RESET REFRESH

ADD DATA VIEW

Displaying documents 1 - 6 of 6

```
_id: ObjectId("61fadef09543d7ff0d80036a0")
user: ObjectId("61fadef09543d7ff0d800369c")
> books: Array
totalPrice: 3188
__v: 22

_id: ObjectId("61fadef09543d7ff0d80036a1")
user: ObjectId("61fadef09543d7ff0d800369e")
> books: Array
totalPrice: 0
__v: 0

_id: ObjectId("61fafe159178fcc02b4e7af29")
user: ObjectId("61fafe159178fcc02b4e7af27")
> books: Array
totalPrice: 558
__v: 12

_id: ObjectId("61fd6561cc8b7dff7d1c6f7d")
user: ObjectId("61fd6561cc8b7dff7d1c6f7b")
> books: Array
totalPrice: 0
__v: 2
```

3. COMMENTS

The screenshot shows the MongoDB Compass interface connected to the 'OnlineBookStore' database. The left sidebar lists databases and collections, with 'comments' selected under the 'OnlineBookStore' database. The main pane displays the 'Comments' collection, which contains five documents. Each document represents a comment with fields: _id, content, creationDate, __v, book, and user.

```

_id: ObjectId("61fa8e3127310bf2944617f")
content: "Very Good Book!"
creationDate: 2022-02-03T10:05:23.142+00:00
__v: 0
book: ObjectId("5b8002915b8ff1b10d4b666e2")
user: ObjectId("61fadef9543d7f0d800369c")

_id: ObjectId("61fa8e3127310bf29446176")
content: "Very Good!"
creationDate: 2022-02-03T10:05:23.142+00:00
__v: 0
book: ObjectId("5b8002915b8ff1b10d4b666e2")
user: ObjectId("61fae159178fcc02b4e7af27")

_id: ObjectId("61fc2f6c127310bf294463d3")
content: "Nice Book Dude!"
creationDate: 2022-02-03T19:39:07.111+00:00
__v: 0
book: ObjectId("5b80029058ff1b10d4b666d5")
user: ObjectId("61fae159178fcc02b4e7af27")

_id: ObjectId("61fc2f6c127310bf294463eb")
content: "Good Choice"
creationDate: 2022-02-03T19:39:24.759+00:00
__v: 0

```

4. ROLES

The screenshot shows the MongoDB Compass interface connected to the 'OnlineBookStore' database. The left sidebar lists databases and collections, with 'roles' selected under the 'OnlineBookStore' database. The main pane displays the 'Roles' collection, which contains two documents. Each document represents a role with fields: _id, name, and users.

```

_id: ObjectId("61fadef9543d7f0d8003697")
name: "Admin"
users: Array
  0: ObjectId("61fadef9543d7f0d800369c")
  __v: 1

_id: ObjectId("61fadef9543d7f0d8003699")
name: "User"
users: Array
  0: ObjectId("61fadef9543d7f0d800369e")
  1: ObjectId("61fae159178fcc02b4e7af27")
  2: ObjectId("61fd6561cc8b7df7d1c6f7b")
  3: ObjectId("61fe07ad35f3ae825bb935")
  4: ObjectId("61fe08ecd235f3ae825bb937")
  __v: 5

```

5. USERS

MongoDB Compass - localhost:27017/OnlineBookStore.users

Local

HOST localhost:27017

CLUSTER Standalone

EDITION MongoDB 5.0.5 Community

Filter your data

OnlineBookStore

- books
- carts
- comments
- receipts
- roles
- users
- admin
- bajajdb
- confusion
- config
- local

_MONGOSH

OnlineBookStore.users

Documents Aggregations Schema Explain Plan Indexes Validation

FILTER { field: 'value' } OPTIONS FIND RESET ...

ADD DATA VIEW

Displaying documents 1 - 6 of 6

```

_id: ObjectId("61fadef09543d7f0d800369c")
username: "admin"
email: "admin@admin.com"
avatar: "https://i.imgur.com/4s5QzU.png"
password: "f3f3f04ad9edcf2227048f280bc2998b2578407deeb3ec6a99237484f0dc3ff1"
salt: "k5X0mk45HtGtE1Zo7/r6g9x+D2upqf5v1tP0ExJc52zyfN0xpL5c2udQkohlp/O..."
isAdmin: true
isCommentsBlocked: false
commentsCount: 2
roles: Array
receipts: Array
favoriteBooks: Array
__v: 1
cart: ObjectId("61fadef09543d7f0d80036a0")

_id: ObjectId("61fadef09543d7f0d800369e")
username: "jeliozver"
email: "jeliozver@gmail.com"
avatar: "https://i.imgur.com/4s5QzU.png"
password: "73c2fe1csec0b248189bf9d73f1bedfd48fd0c564a7bba5654b525e650031"
salt: "81TnqMuYXHZYzo5fw5DFB1GJM12SERrakfPdJSBya5GeyedShdLsKq8PYFwR5pelUo..."
isAdmin: false
isCommentsBlocked: false
commentsCount: 0
roles: Array
receipts: Array
favoriteBooks: Array
__v: 0
cart: ObjectId("61fadef09543d7f0d80036a3")

```

6. RECEIPTS

MongoDB Compass - localhost:27017/OnlineBookStore.receipts

Local

HOST localhost:27017

CLUSTER Standalone

EDITION MongoDB 5.0.5 Community

Filter your data

OnlineBookStore

- books
- carts
- comments
- receipts
- roles
- users
- admin
- bajajdb
- confusion
- config
- local

_MONGOSH

OnlineBookStore.receipts

Documents Aggregations Schema Explain Plan Indexes Validation

FILTER { field: 'value' } OPTIONS FIND RESET ...

ADD DATA VIEW

Displaying documents 1 - 6 of 6

```

_id: ObjectId("61fba579127310bf29446124")
user: ObjectId("61fadef09543d7f0d800369c")
productsInfo: Array
totalPrice: 88.72
creationDate: 2022-02-03T09:50:49.587+00:00
__v: 0

_id: ObjectId("61fc1799127310bf294462a9")
user: ObjectId("61fae159178fcc02b4e7af27")
productsInfo: Array
totalPrice: 88.71000000000001
creationDate: 2022-02-03T17:57:45.860+00:00
__v: 0

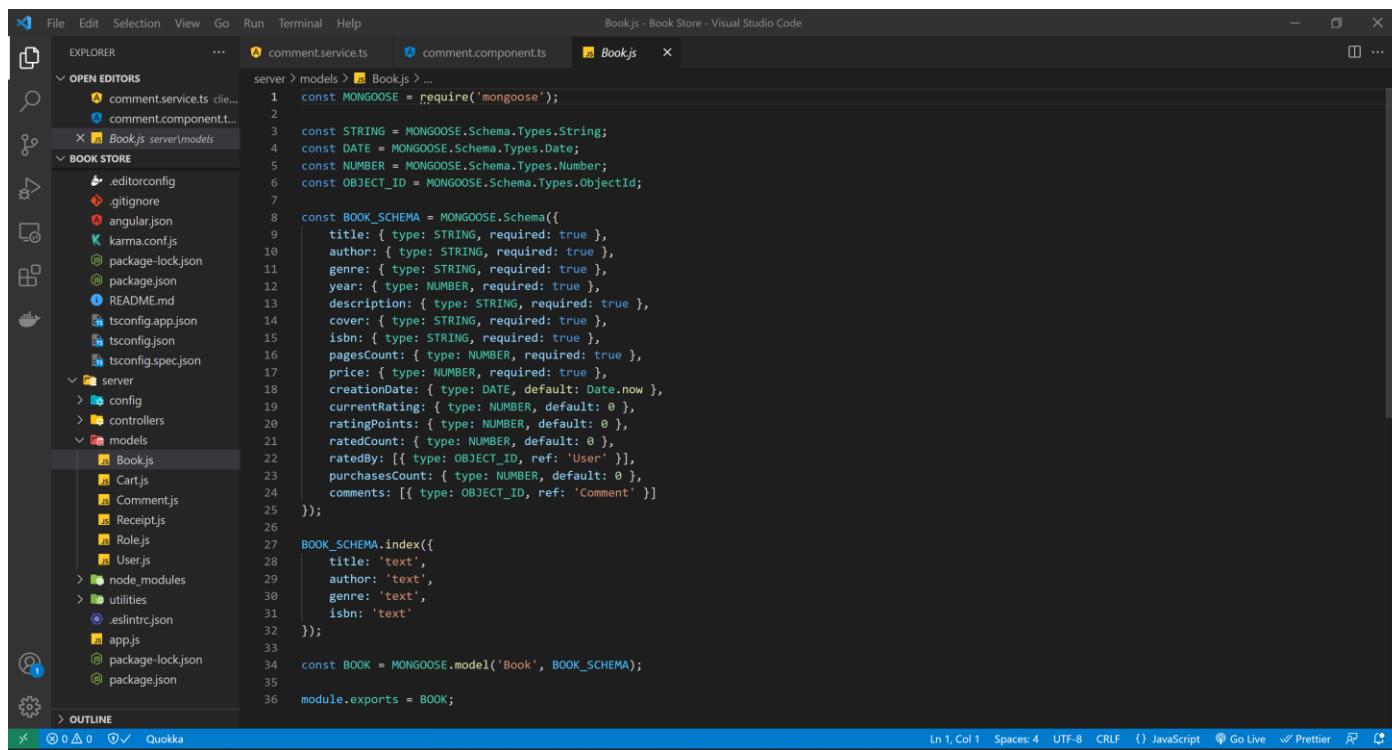
_id: ObjectId("61fc2cd4127310bf29446354")
user: ObjectId("61fae159178fcc02b4e7af27")
productsInfo: Array
totalPrice: 20.18
creationDate: 2022-02-03T19:28:20.876+00:00
__v: 0

_id: ObjectId("61fd7d82cc8b7dff7d1c7168")
user: ObjectId("61fadef09543d7f0d800369c")
productsInfo: Array
totalPrice: 558

```

SCHEMA / MODELS

1. BOOK



The screenshot shows the Visual Studio Code interface with the title bar "Book.js - Book Store - Visual Studio Code". The Explorer sidebar on the left shows the project structure under "BOOK STORE", including files like .editorconfig, .gitignore, angular.json, karma.conf.js, package-lock.json, package.json, README.md, tsconfig.app.json, tsconfig.json, tsconfig.spec.json, server, config, controllers, and models. The "models" folder contains Book.js, Cart.js, Comment.js, Receipt.js, Role.js, and User.js. The "Book.js" tab is active in the main editor area, displaying the following code:

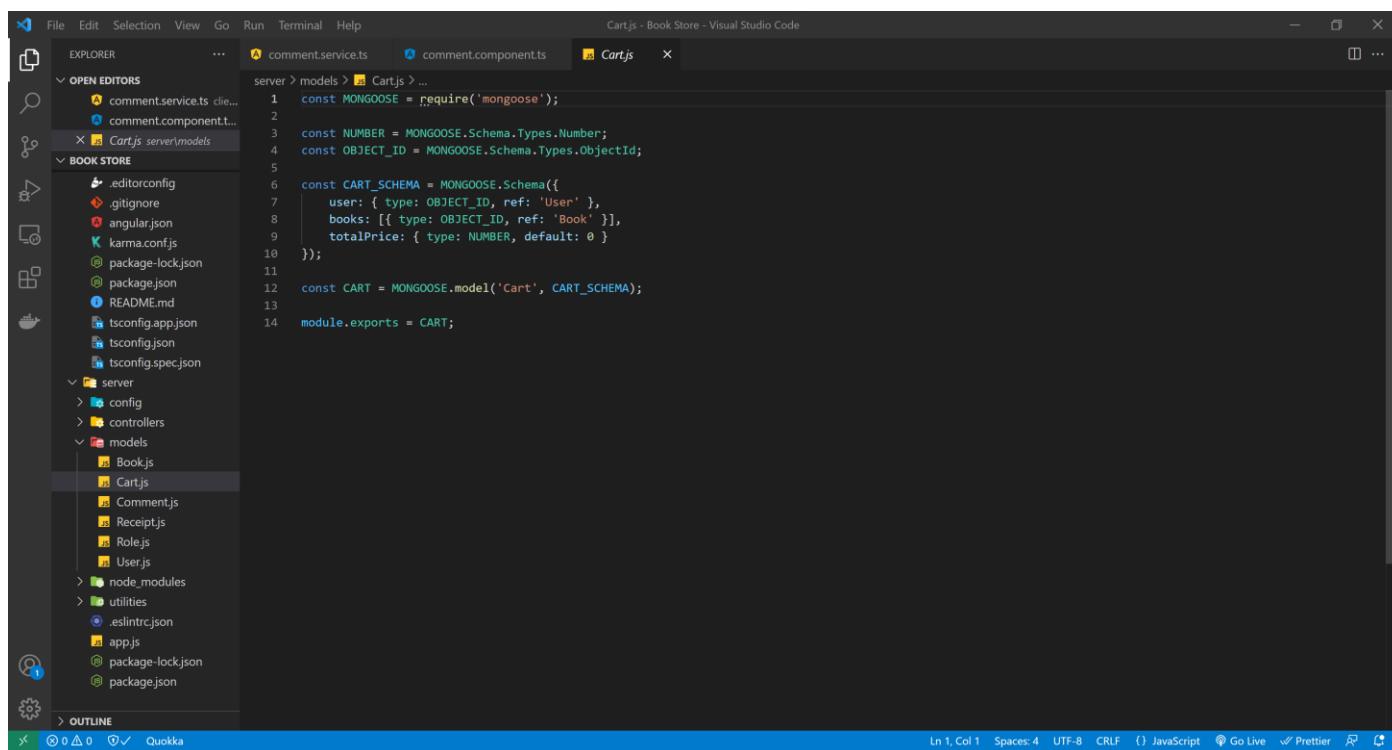
```

1  const MONGOOSE = require('mongoose');
2
3  const STRING = MONGOOSE.Schema.Types.String;
4  const DATE = MONGOOSE.Schema.Types.Date;
5  const NUMBER = MONGOOSE.Schema.Types.Number;
6  const OBJECT_ID = MONGOOSE.Schema.Types.ObjectId;
7
8  const BOOK_SCHEMA = MONGOOSE.Schema({
9    title: { type: STRING, required: true },
10   author: { type: STRING, required: true },
11   genre: { type: STRING, required: true },
12   year: { type: NUMBER, required: true },
13   description: { type: STRING, required: true },
14   cover: { type: STRING, required: true },
15   isbn: { type: STRING, required: true },
16   pageCount: { type: NUMBER, required: true },
17   price: { type: NUMBER, required: true },
18   creationDate: { type: DATE, default: Date.now },
19   currentRating: { type: NUMBER, default: 0 },
20   ratingPoints: { type: NUMBER, default: 0 },
21   ratedCount: { type: NUMBER, default: 0 },
22   ratedBy: [{ type: OBJECT_ID, ref: 'User' }],
23   purchasesCount: { type: NUMBER, default: 0 },
24   comments: [{ type: OBJECT_ID, ref: 'Comment' }]
25 });
26
27 BOOK_SCHEMA.index({
28   title: 'text',
29   author: 'text',
30   genre: 'text',
31   isbn: 'text'
32 });
33
34 const BOOK = MONGOOSE.model('Book', BOOK_SCHEMA);
35
36 module.exports = BOOK;

```

The status bar at the bottom shows "Ln 1, Col 1" and other standard VS Code icons.

2. CART



The screenshot shows the Visual Studio Code interface with the title bar "Cart.js - Book Store - Visual Studio Code". The Explorer sidebar on the left shows the project structure under "BOOK STORE", including files like .editorconfig, .gitignore, angular.json, karma.conf.js, package-lock.json, package.json, README.md, tsconfig.app.json, tsconfig.json, tsconfig.spec.json, server, config, controllers, and models. The "models" folder contains Book.js, Cart.js, Comment.js, Receipt.js, Role.js, and User.js. The "Cart.js" tab is active in the main editor area, displaying the following code:

```

1  const MONGOOSE = require('mongoose');
2
3  const NUMBER = MONGOOSE.Schema.Types.Number;
4  const OBJECT_ID = MONGOOSE.Schema.Types.ObjectId;
5
6  const CART_SCHEMA = MONGOOSE.Schema({
7    user: { type: OBJECT_ID, ref: 'User' },
8    books: [{ type: OBJECT_ID, ref: 'Book' }],
9    totalPrice: { type: NUMBER, default: 0 }
10  });
11
12 const CART = MONGOOSE.model('Cart', CART_SCHEMA);
13
14 module.exports = CART;

```

The status bar at the bottom shows "Ln 1, Col 1" and other standard VS Code icons.

3. COMMENT

```

File Edit Selection View Go Run Terminal Help
OPEN EDITORS comment.service.ts comment.component.ts Comment.js
server > models > Comment.js ...
1 const MONGOOSE = require('mongoose');
2
3 const STRING = MONGOOSE.Schema.Types.String;
4 const DATE = MONGOOSE.Schema.Types.Date;
5 const OBJECT_ID = MONGOOSE.Schema.Types.ObjectId;
6
7 const COMMENT_SCHEMA = MONGOOSE.Schema({
8   user: { type: OBJECT_ID, ref: 'User' },
9   book: { type: OBJECT_ID, ref: 'Book' },
10  content: { type: STRING, required: true },
11  creationDate: { type: DATE, default: Date.now }
12 });
13
14 const COMMENT = MONGOOSE.model('Comment', COMMENT_SCHEMA);
15
16 module.exports = COMMENT;

```

Ln 1, Col 1 Spaces: 4 UTF-8 CRLF ⓘ JavaScript ⓘ Go Live ⓘ Prettier ⌂

4. RECEIPT

```

File Edit Selection View Go Run Terminal Help
OPEN EDITORS comment.service.ts comment.component.ts Comment.js
server > models > Comment.js ...
1 const MONGOOSE = require('mongoose');
2
3 const STRING = MONGOOSE.Schema.Types.String;
4 const DATE = MONGOOSE.Schema.Types.Date;
5 const OBJECT_ID = MONGOOSE.Schema.Types.ObjectId;
6
7 const COMMENT_SCHEMA = MONGOOSE.Schema({
8   user: { type: OBJECT_ID, ref: 'User' },
9   book: { type: OBJECT_ID, ref: 'Book' },
10  content: { type: STRING, required: true },
11  creationDate: { type: DATE, default: Date.now }
12 });
13
14 const COMMENT = MONGOOSE.model('Comment', COMMENT_SCHEMA);
15
16 module.exports = COMMENT;

```

Ln 1, Col 1 Spaces: 4 UTF-8 CRLF ⓘ JavaScript ⓘ Go Live ⓘ Prettier ⌂

5. ROLE

```

File Edit Selection View Go Run Terminal Help
REPL Comment.service.ts comment.component.ts Rolejs
server > models > Rolejs ...
1 const MONGOOSE = require('mongoose');
2
3 const USER = MONGOOSE.model('User');
4 const CART = MONGOOSE.model('Cart');
5 const ENCRYPTION = require('../utilities/encryption');
6 const STRING = MONGOOSE.Schema.Types.String;
7 const OBJECT_ID = MONGOOSE.Schema.Types.ObjectId;
8
9 const ROLE_SCHEMA = MONGOOSE.Schema({
10   name: { type: STRING, required: true, unique: true },
11   users: [{ type: OBJECT_ID, ref: 'User' }]
12 });
13
14 const ROLE = MONGOOSE.model('Role', ROLE_SCHEMA);
15
16 module.exports = ROLE;
17
18
19
20 module.exports.init = () => {
21   ROLE.findOne({ name: 'Admin' }).then((role) => {
22     console.log(role);
23     if (!role) {
24       ROLE.create({ name: 'Admin' }).then((newRole) => {
25         let salt = ENCRYPTION.generateSalt();
26         let passwordHash = ENCRYPTION.generateHashedPassword(salt, 'admin');
27         let adminUser = {
28           username: 'admin',
29           email: 'admin@admin.com',
30           salt,
31           password: passwordHash,
32           isAdmin: true,
33           roles: [newRole._id]
34         };
35
36         USER.create(adminUser).then((user) => {
37           newRole.users.push(user._id);
38         });
39       });
40     }
41   });
42 }

```

Ln 1, Col 1 Spaces: 4 UTF-8 CRLF ⚡ Go Live ✅ Prettier

6. USER

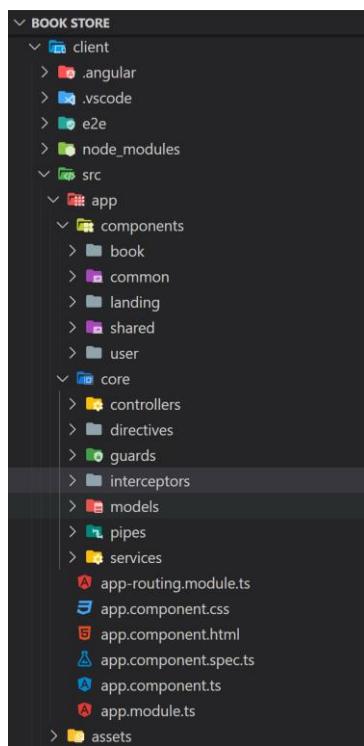
```

File Edit Selection View Go Run Terminal Help
REPL Comment.service.ts comment.component.ts Userjs
server > models > Userjs ...
1 const MONGOOSE = require('mongoose');
2
3 const ENCRYPTION = require('../utilities/encryption');
4 const STRING = MONGOOSE.Schema.Types.String;
5 const NUMBER = MONGOOSE.Schema.Types.Number;
6 const BOOLEAN = MONGOOSE.Schema.Types.Boolean;
7 const OBJECT_ID = MONGOOSE.Schema.Types.ObjectId;
8
9 const USER_SCHEMA = MONGOOSE.Schema({
10   username: { type: STRING, required: true, unique: true },
11   email: { type: STRING, required: true, unique: true },
12   avatar: { type: STRING, default: 'https://i.imgur.com/4sSqlZU.png' },
13   password: { type: STRING, required: true },
14   salt: { type: STRING, required: true },
15   isAdmin: { type: BOOLEAN, default: false },
16   isCommentsBlocked: { type: BOOLEAN, default: false },
17   commentsCount: { type: NUMBER, default: 0 },
18   roles: [{ type: OBJECT_ID, ref: 'Role' }],
19   cart: { type: OBJECT_ID, ref: 'Cart' },
20   receipts: [{ type: OBJECT_ID, ref: 'Receipt' }],
21   favoriteBooks: [{ type: OBJECT_ID, ref: 'Book' }]
22 });
23
24 USER_SCHEMA.method({
25   authenticate: function (password) {
26     let hashedPassword = ENCRYPTION.generateHashedPassword(this.salt, password);
27
28     if (hashedPassword === this.password) {
29       return true;
30     }
31
32     return false;
33   }
34 });
35
36 const USER = MONGOOSE.model('User', USER_SCHEMA);
37

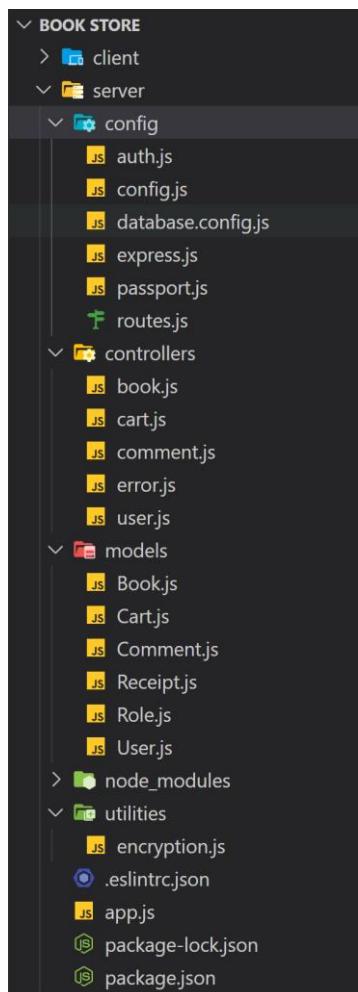
```

Ln 1, Col 1 Spaces: 4 UTF-8 CRLF ⚡ Go Live ✅ Prettier

COMPONENTS AND CORE MODULES



BACKEND MODULES



REFERENCES

- [MongoDB](<https://www.mongodb.com>)
- [Mongoose](<http://mongoosejs.com/index.html>)
- [NodeJS](<https://nodejs.org/en/>)
- [ExpressJS](<https://expressjs.com>)
- [JSONWebToken](<https://jwt.io>)
- [Angular](<https://angular.io>)
- <https://www.theguardian.com/technology/2016/dec/15/passwords-hacking-hashing-salting-sha-2#:~:text=Salting%20is%20simply%20the%20addition,same%20salt%20for%20every%20password>.
- <https://www.bigcommerce.com/blog/best-ecommerce-stores/>
- https://www.youtube.com/watch?v=Yxe0EjpVP_I