

# Flower And Gift Delivery

## Introduction:

Introducing our Flower and Gift Delivery App, the perfect solution for all your gifting needs. With our user-friendly platform, you can easily browse and send beautiful flowers, thoughtful gifts, and personalized surprises to your loved ones, all with just a few taps on your smartphone.

Our app is designed to make the gifting process effortless and convenient. Whether you want to send a bouquet of fresh flowers for a special occasion or surprise someone with a unique gift, our extensive collection has something for everyone. From elegant roses to vibrant mixed arrangements, we offer a wide variety of floral options to suit any taste and occasion.

In addition to flowers, our app also features an extensive range of gifts and treats. You can explore a diverse selection of gift items, including gourmet chocolates, luxury hampers, personalized keepsakes, and much more. We partner with trusted vendors and artisans to ensure the highest quality products and an exceptional gifting experience.

## Here's how our Flower and Gift Delivery App works:

**Browse and Choose:** Explore our vast catalog of flowers, gifts, and other delightful options. Filter by occasion, recipient, or price to find the perfect gift.

**Personalization:** Add a personal touch to your gift by including a custom message, selecting preferred colors, or adding additional items like balloons or teddy bears.

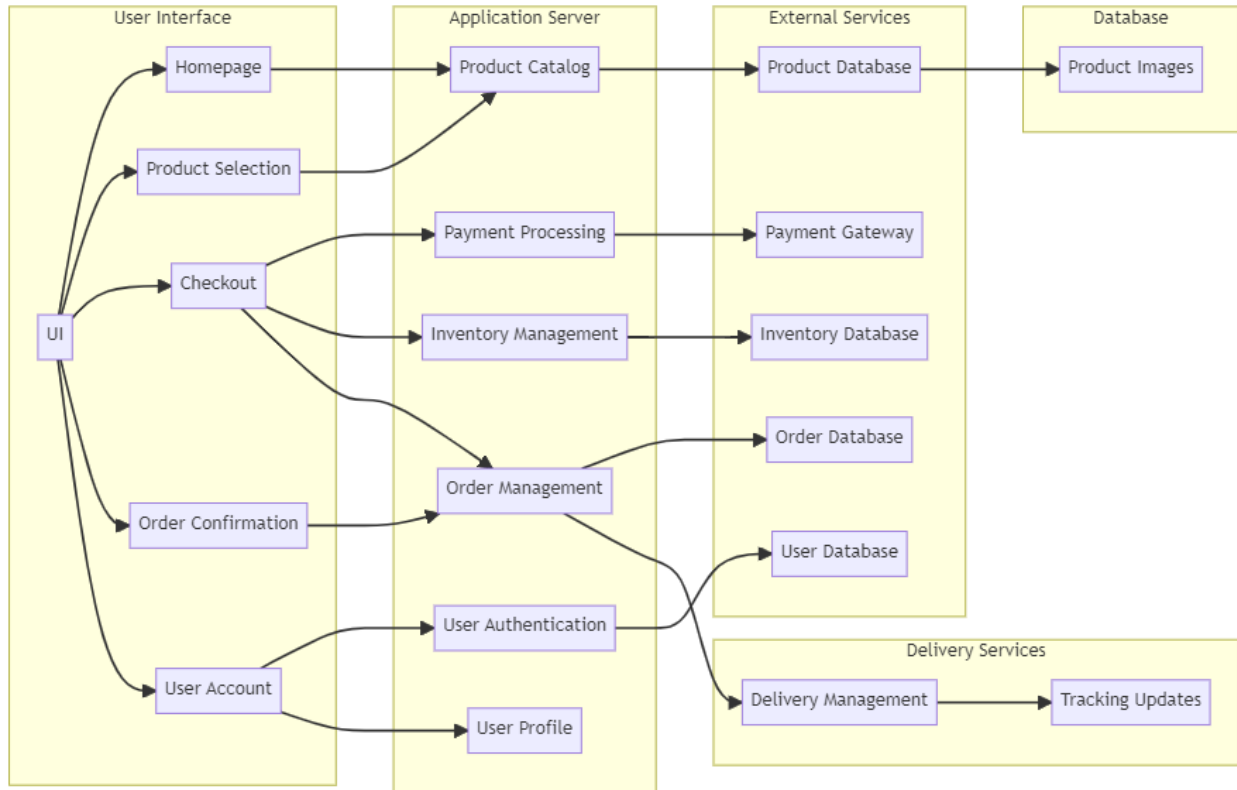
**Secure Payment:** Complete your order seamlessly and securely through our encrypted payment gateway. We accept various payment methods to ensure a hassle-free transaction.

**Track and Notifications:** Stay updated with real-time tracking and notifications. Know exactly when your gift is out for delivery and receive delivery confirmation once it reaches the recipient.

**Customer Support:** Our dedicated customer support team is available to assist you throughout the process. If you have any questions or concerns, we're just a message or call away.

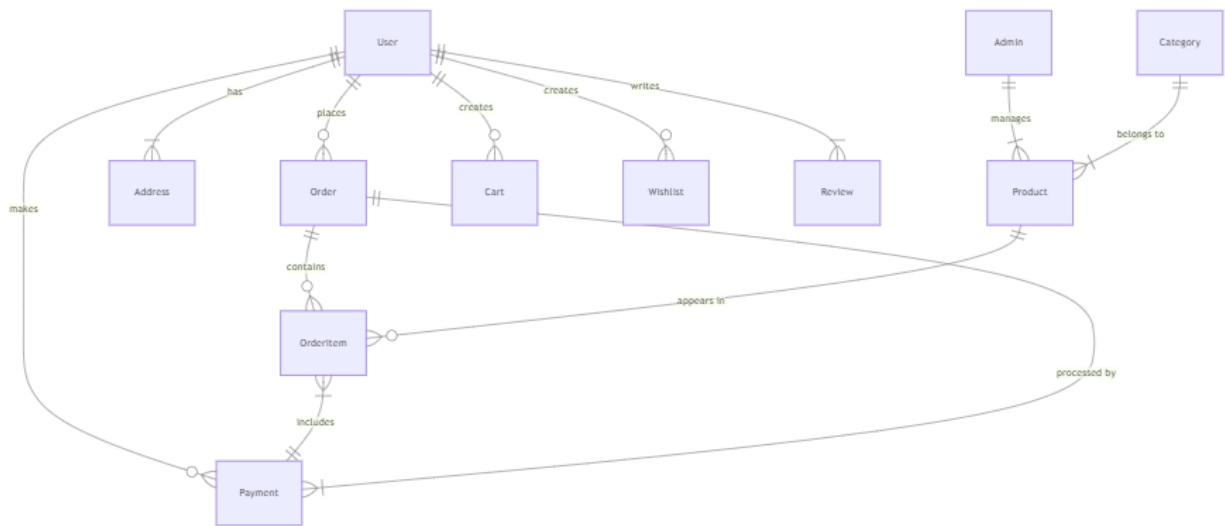
Our Flower and Gift Delivery website aims to bring joy and create memorable moments by delivering beautiful flowers and thoughtful gifts to your loved ones, no matter the distance.

## Technical Architecture:



The technical architecture of a flower and gift delivery app typically follows a client-server model. In this model, the frontend component represents the client-side, while the backend component serves as the server-side.

# ER Diagram:



The Entity-Relationship (ER) diagram for an flower and gift delivery app visually represents the relationships between different entities involved in the system, such as users, products, orders, and reviews. It illustrates how these entities are related to each other and helps in understanding the overall database structure and data flow within the application.

## Key Features:

**Product Catalog:** Our flower and gift delivery app provides an extensive product catalog with various categories and subcategories. Users can easily search, browse, and filter products based on their preferences, making it effortless to find the desired items.

**Shopping Cart and Checkout:** The app includes a shopping cart feature that enables users to add products, review their cart, and proceed to checkout. The checkout process offers multiple payment options, ensuring a smooth and secure transaction experience.

**Product Reviews and Ratings:** Customers can provide feedback and rate products, helping other users make informed purchasing decisions. This feature fosters a sense of community and trust among users.

**Order Tracking:** Once an order is placed, users can track its status in real-time. They receive updates on order processing, shipping, and delivery, providing transparency and peace of mind.

**Admin Dashboard:** For administrators, our flower and gift delivery app offers a comprehensive dashboard to manage products, inventory, orders, and customer information. It provides insights into sales performance, stock levels, and customer analytics, enabling efficient business operations.

**Order Management:** The app manages the order lifecycle, including order placement, tracking, and status updates. Users can view their order history, track shipments, and request returns or cancellations.

**Search and Filtering:** Users can search for products using keywords and apply filters to narrow down the search results based on criteria such as price range, brand, or customer ratings.

## PRE REQUISITES:

To develop a full-stack Flower and gift delivery app using AngularJS, Node.js, and MongoDB, there are several prerequisites you should consider. Here are the key prerequisites for developing such an application:

**Node.js and npm:** Install Node.js, which includes npm (Node Package Manager), on your development machine. Node.js is required to run JavaScript on the server side.

- Download: <https://nodejs.org/en/download/>
- Installation instructions: <https://nodejs.org/en/download/package-manager/>

**MongoDB:** Set up a MongoDB database to store hotel and booking information. Install MongoDB locally or use a cloud-based MongoDB service.

- Download: <https://www.mongodb.com/try/download/community>
- Installation instructions: <https://docs.mongodb.com/manual/installation/>

**Express.js:** Express.js is a web application framework for Node.js. Install Express.js to handle server-side routing, middleware, and API development.

- Installation: Open your command prompt or terminal and run the following command: **npm install express**

**Angular:** Angular is a JavaScript framework for building client-side applications. Install Angular CLI (Command Line Interface) globally to create and manage your Angular project.

### **Install Angular CLI:**

- Angular provides a command-line interface (CLI) tool that helps with project setup and development.
- Install the Angular CLI globally by running the following command:  
**npm install -g @angular/cli**

### **Verify the Angular CLI installation:**

- Run the following command to verify that the Angular CLI is installed correctly: **ng version**

You should see the version of the Angular CLI printed in the terminal if the installation was successful.

### **Create a new Angular project:**

- Choose or create a directory where you want to set up your Angular project.
- Open your terminal or command prompt.
- Navigate to the selected directory using the **cd** command.
- Create a new Angular project by running the following command: **ng new client** Wait for the project to be created:

- The Angular CLI will generate the basic project structure and install the necessary dependencies

### **Navigate into the project directory:**

- After the project creation is complete, navigate into the project directory by running the following command: **cd client**

### **Start the development server:**

- To launch the development server and see your Angular app in the browser, run the following command: **ng serve / npm start**
- The Angular CLI will compile your app and start the development server.
- Open your web browser and navigate to <http://localhost:4200> to see your Angular app running.

You have successfully set up Angular on your machine and created a new Angular project. You can now start building your app by modifying the generated project files in the src directory.

Please note that these instructions provide a basic setup for Angular. You can explore more advanced configurations and features by referring to the official Angular documentation:

<https://angular.io>

**HTML, CSS, and JavaScript:** Basic knowledge of HTML for creating the structure of your app, CSS for styling, and JavaScript for client-side interactivity is essential.

**Database Connectivity:** Use a MongoDB driver or an Object-Document Mapping (ODM) library like Mongoose to connect your Node.js server with the MongoDB database and perform CRUD (Create, Read, Update, Delete) operations.

**Front-end Framework:** Utilize Angular to build the user-facing part of the application, including products listings, booking forms, and user interfaces for the admin dashboard.

**Version Control:** Use Git for version control, enabling collaboration and tracking changes throughout the development process. Platforms like GitHub or Bitbucket can host your repository.

- Git: Download and installation instructions can be found at: <https://git-scm.com/downloads>

**Development Environment:** Choose a code editor or Integrated Development Environment (IDE) that suits your preferences, such as Visual Studio Code, Sublime Text, or WebStorm.

- Visual Studio Code: Download from <https://code.visualstudio.com/download>

- Sublime Text: Download from <https://www.sublimetext.com/download>
- WebStorm: Download from <https://www.jetbrains.com/webstorm/download>

**To Connect the Database with Node JS go through the below provided link:**

- Link: <https://www.section.io/engineering-education/nodejs-mongoosejs-mongodb/>

**To run the existing Flower and gift delivery App project downloaded from github:**

**Follow below steps:**

### **1. Clone the Repository:**

- Open your terminal or command prompt.
- Navigate to the directory where you want to store the Flower and gift delivery app.
- Execute the following command to clone the repository:

**git clone** <https://github.com/Bharath136/flower-and-gift-delivery-app>

### **2. Install Dependencies:**

- Navigate into the cloned repository directory:

```
cd flower-and-gift-delivery-app
```

- Install the required dependencies by running the following command:

```
npm install
```

### **3. Start the Development Server:**

- To start the development server, execute the following command:

```
npm run dev or npm run start
```

- The flower-and-gift-delivery-app app will be accessible at <http://localhost:5100> by default. You can change the port configuration in the .env file if needed.

### **4. Access the App:**

- Open your web browser and navigate to <http://localhost:5100>.
- You should see the flower-and-gift-delivery-app app's homepage, indicating that the installation and setup were successful.

**Video Tutorial Link to clone the project: -**

<https://drive.google.com/file/d/1KTGK0XZj0XWOiDeNKJVRKQHXLyVWZYLM/view?usp=sharing>

**Project Repository Link:** <https://github.com/Bharath136/flower-and-gift-delivery-app>

Congratulations! You have successfully installed and set up the flower-and-gift-delivery-app app on your local machine. You can now proceed with further customization, development, and testing as needed.

## **Roles and Responsibilities:**

The project has two types of users – Seller and Customer. The roles and responsibilities of these two types of users can be inferred from the API endpoints defined in the code. Here is a summary:

### **Customer:**

1. Create an account and log in to the system using their email and password.
2. Browse and search for products available on the platform.
3. View detailed product information, including description, price, and availability.
4. Add products to their cart for future purchase.
5. Proceed to checkout and place orders for selected products.
6. Make secure online payments for their orders.
7. Track the status of their orders.
8. Manage their profile information, including personal details and shipping addresses.
9. Provide feedback and reviews for products and sellers.
10. Access customer support for any queries or issues related to their orders.

### **Seller:**

1. Create an account and log in to the system using their email and password.
2. Manage their product inventory, including adding new products and updating existing ones.
3. Set product details such as title, description, price, quantity, and images.
4. Monitor and fulfill orders received from customers.
5. Manage product categories and organize products accordingly.
6. Track sales and revenue generated from their products.
7. Interact with customers by responding to inquiries, resolving issues, and addressing feedback.
8. Access seller support for assistance with any platform-related concerns.

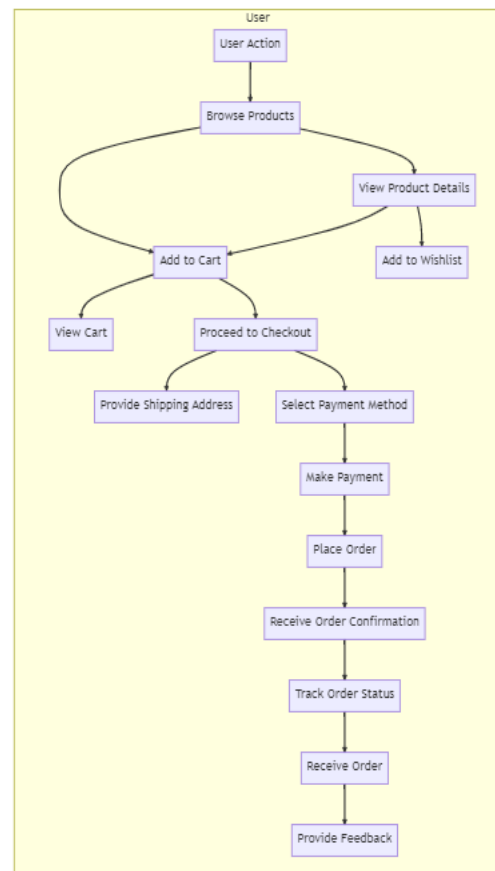
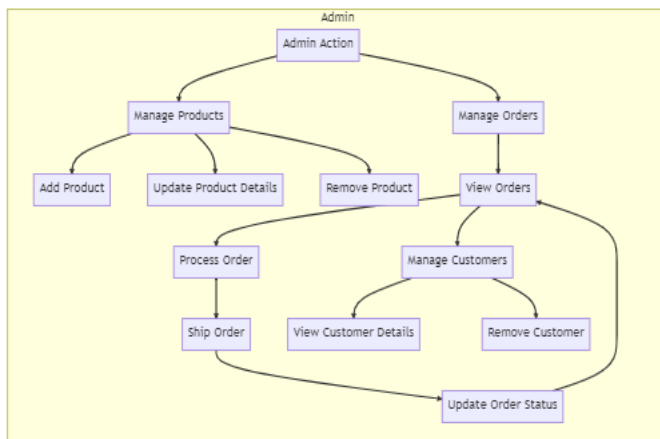
### **Admin:**

1. Manage and monitor the overall operation of the Flower and gift delivery platform.
2. Approve and onboard new sellers.
3. Monitor and moderate product listings, ensuring compliance with guidelines and policies.
4. Handle customer disputes and resolve issues.
5. Manage user accounts, including customer and seller profiles.
6. Analyze platform performance and generate reports on sales, customer behavior, and product popularity.
7. Implement and enforce platform policies, terms of service, and privacy regulations.
8. Continuously improve the platform's functionality, user experience, and security measures.

These roles and responsibilities are aimed at ensuring a smooth and efficient operation of the Flower and gift delivery app, providing a seamless experience for customers, sellers, and administrators.

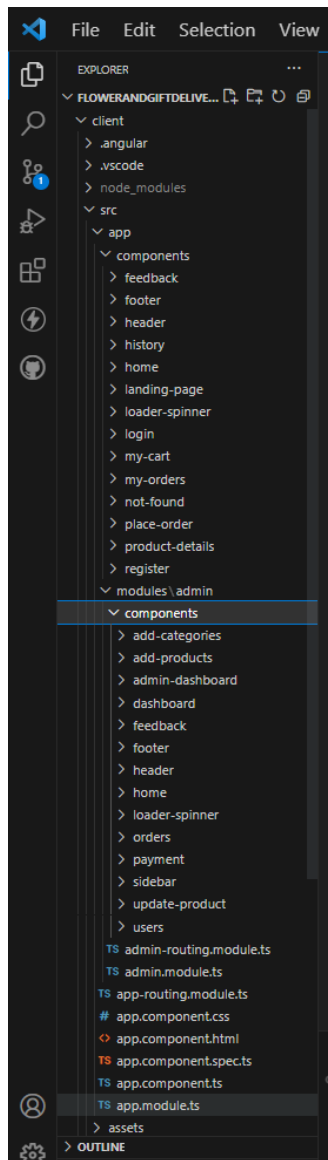


# Admin and User Flow:



The project flow for an Flower and gift delivery app involves user actions such as browsing products, adding items to the cart, proceeding to checkout, providing shipping details, selecting payment methods, making payments, and receiving order confirmation. Admin actions include managing products, viewing and processing orders, managing customers, and updating product details.

## PROJECT STRUCTURE:



This structure assumes an Angular app and follows a modular approach. Here's a brief explanation of the main directories and files:

`src/app/components`: Contains components related to the customer app, such as register, login, home, products, my-cart, my-orders, placeorder, history, feedback, product-details, and more. `src/app/modules`: Contains modules for different sections of the app. In this case, the admin module is included with its own set of components like add-category, add-product, dashboard, feedback, home, orders, payment, update-product, users, and more.

`src/app/app-routing.module.ts`: Defines the routing configuration for the app, specifying which components should be loaded for each route.

`src/app/app.component.ts`, `src/app/app.component.html`, ``src.`

## **Project Flow:**

### **Milestone 1: Project Setup and Configuration:**

#### **1. Install required tools and software:**

- Node.js.
- MongoDB.
- Angular CLI.

#### **2. Create project folders and files:**

- Client folders.
- Server folders.

### **Milestone 2: Backend Development:**

#### **Setup express server:**

- Install express.
- Create app.js file.
- Define API's

#### **Configure MongoDB:**

- Install Mongoose.
- Create database connection.
- Create Models.

#### **Implement API end points:**

- Implement CRUD operations.
- Test API endpoints.

### **Milestone 3: Web Development:**

#### **1. Setup Angular Application:**

- Create Angular application using angular CLI.
- Configure Routing.
- Install required libraries.

#### **2. Design UI components:**

- Create Components.

- Implement layout and styling.
- Add navigation.

### **3. Implement frontend logic:**

- Integration with API endpoints.
- Implement data binding.

#### **Create database in cloud video link:-**

<https://drive.google.com/file/d/1CQil5KzGnPvkVOPWTLP0h-Bu2bXhq7A3/view?usp=sharing>

#### **To Setup the frontend development and to connect node.js with MongoDB Database Go through this video link: -**

[https://drive.google.com/file/d/1b5bMvnqmASXLnSZ74B2t3EzNjuWHj63g/view?usp=drive\\_link](https://drive.google.com/file/d/1b5bMvnqmASXLnSZ74B2t3EzNjuWHj63g/view?usp=drive_link)

## **Backend:**

### **1. Set Up Project Structure:**

- Create a new directory for your project and set up a package.json file using npm init command.
- Install necessary dependencies such as Express.js, Mongoose, and other required packages.

### **2. Database Configuration:**

- Set up a MongoDB database either locally or using a cloud-based MongoDB service like MongoDB Atlas.
- Create a database and define the necessary collections for hotels, users, bookings, and other relevant data.

### **3. Create Express.js Server:**

- Set up an Express.js server to handle HTTP requests and serve API endpoints.

- Configure middleware such as body-parser for parsing request bodies and cors for handling cross-origin requests.

#### **4. Define API Routes:**

- Create separate route files for different API functionalities such as hotels, users, bookings, and authentication.
- Define the necessary routes for listing hotels, handling user registration and login, managing bookings, etc.
- Implement route handlers using Express.js to handle requests and interact with the database.

#### **5. Implement Data Models:**

- Define Mongoose schemas for the different data entities like hotels, users, and bookings.
- Create corresponding Mongoose models to interact with the MongoDB database.
- Implement CRUD operations (Create, Read, Update, Delete ) for each model to perform database operations.

#### **API Design and Development:**

- Identify the necessary functionality and data required by the frontend.
- Design a set of RESTful APIs using a framework like Express.js or Django REST Framework.
- Define API endpoints for user management, product catalog, shopping cart, order management, payment gateway integration, shipping integration, etc.
- Implement the API routes, controllers, and data models to handle the corresponding operations.
- Ensure that the APIs follow best practices, are secure, and provide appropriate responses.

#### **User Management and Authentication:**

- Implement user registration and login functionality.
- Choose an authentication mechanism like session-based authentication or token-based authentication (e.g., JWT).
- Store and hash user credentials securely.

- Implement middleware to authenticate API requests and authorize access to protected routes.

### **Product Catalog and Inventory Management:**

- Design the database schema to store product details, pricing, availability, and inventory levels.
- Create APIs to retrieve product information, update inventory quantities, and handle search and filtering.
- Implement validations to ensure data integrity and consistency.

### **Shopping Cart and Order Management:**

- Design the database schema to store shopping cart details and order information.
- Create APIs to handle cart operations like adding items, modifying quantities, and placing orders.
- Implement logic to calculate totals, apply discounts, and manage the order lifecycle.

### **Payment Gateway Integration:**

- Choose a suitable payment gateway provider (e.g., Stripe, COD).
- Integrate the payment gateway SDK or API to handle secure payment processing.
- Implement APIs or callback endpoints to initiate transactions, handle payment callbacks, and receive payment confirmation.

### **Shipping and Logistics Integration:**

- Identify shipping and logistics providers that align with your application's requirements.
- Utilize the APIs provided by these providers to calculate shipping costs, generate shipping labels, and track shipments.
- Implement APIs or services to fetch rates, generate labels, and obtain tracking information.

### **Database Integration:**

- Choose a suitable database technology (e.g., MySQL, PostgreSQL, MongoDB) based on your application's requirements.
- Design the database schema to efficiently store and retrieve e-commerce data.
- Establish a connection to the database and handle data persistence and retrieval.

### **External Service Integration:**

- Identify third-party services like email service providers, analytics services, or CRM systems that are required for your application.
- Utilize the APIs or SDKs provided by these services to exchange data and perform necessary operations.

- Implement the integration logic to send order confirmations, track user behavior, or manage customer relationships.

### **Security and Data Protection:**

- Apply appropriate security measures like encryption techniques for secure data transmission and storage.
- Implement input validation and sanitization to prevent common security vulnerabilities.
- Implement access control to ensure authorized access to sensitive data.

### **Error Handling and Logging:**

- Implement error handling mechanisms to handle exceptions and provide meaningful error messages to the frontend.
- Use logging frameworks to record application logs for monitoring and troubleshooting purposes.

## **Schema Usecase:**

### **1. Users:**

- Schema: userSchema
- Model: 'User'
- Purpose: Represents the schema and model for user data, including information like name, email, password, and other relevant details. It is used for user registration, authentication, and managing user-related functionalities.

### **2. Category:**

- Schema: categorySchema
- Model: 'Category'
- Purpose: Represents the schema and model for product categories. It defines the structure for category data, such as name, description, and any other attributes related to categorizing products. It is used to manage and organize product categories within the e-commerce app.

### **3. Product:**

- Schema: productSchema
- Model: 'Product'
- Purpose: Represents the schema and model for individual products available in the e-commerce app. It includes attributes like name, price, description, images, and other details specific to each product. It is used for product listing, details, and management within the app.

### **4. AddToCart:**

- Schema: addToCartSchema
- Model: 'AddToCart'
- Purpose: Represents the schema and model for items added to a user's cart. It captures information about the user, the product, quantity, and any additional details related to the cart item. It is used to manage the shopping cart functionality within the app.

### **5. Order:**

- Schema: orderSchema
- Model: 'Order'
- Purpose: Represents the schema and model for customer orders placed in the e-commerce app. It includes details like order items, user information, payment status, shipping details, and more. It is used for managing the order lifecycle, tracking, and processing.

### **6. Payment:**

- Schema: paymentSchema
- Model: 'Payment'
- Purpose: Represents the schema and model for payment information associated with customer orders. It includes details like payment method, transaction ID, amount, and



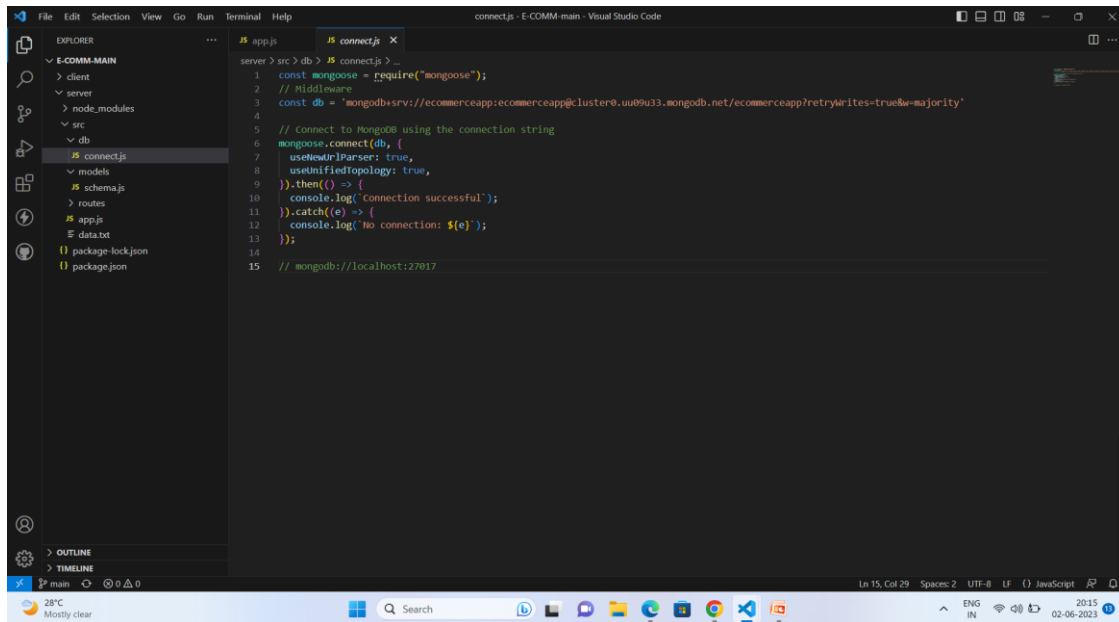
other relevant payment-related data. It is used to handle payment processing and tracking within the app.

## **7. Feedback:**

- Schema: feedbackSchema
- Model: 'Feedback'
- Purpose: Represents the schema and model for customer feedback or reviews. It captures feedback text, ratings, user information, and any other relevant details. It is used to manage and display customer reviews for products or the overall e-commerce experience. These schemas and models provide the structure and functionality needed to interact with the respective MongoDB collections and perform CRUD operations (Create, Read, Update, Delete) for users, categories, products, cart items, orders, payments, and feedback within the e-commerce app.

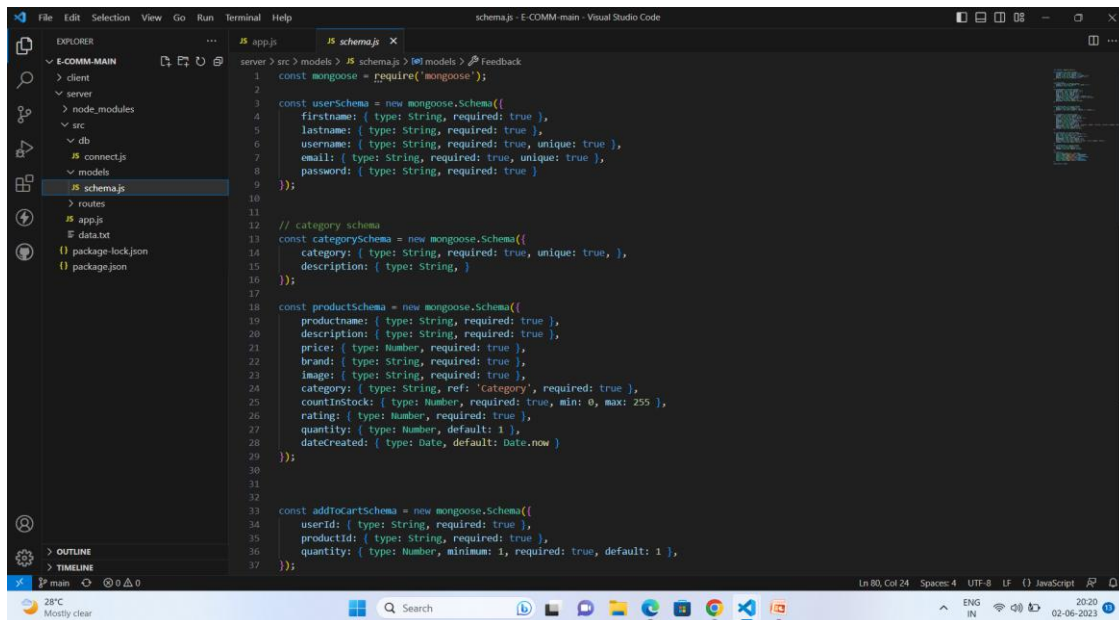
## Backend Explanation with code snippets:

### Database Connection:



```
server > src > db > JS connect.js > ...
1 const mongoose = require("mongoose");
2 // Middleware
3 const db = "mongodb+srv://ecommerceapp:ecommerceapp@cluster0.uu09u33.mongodb.net/ecommerceapp?retryWrites=true&w=majority"
4
5 // Connect to MongoDB using the connection string
6 mongoose.connect(db, {
7   useNewUrlParser: true,
8   useUnifiedTopology: true,
9 }, then(() => {
10   console.log("connection successful");
11 }, catch((e) => {
12   console.log("no connection: ${e}");
13 }));
14
15 // mongodb://localhost:27017
```

### Schemas:



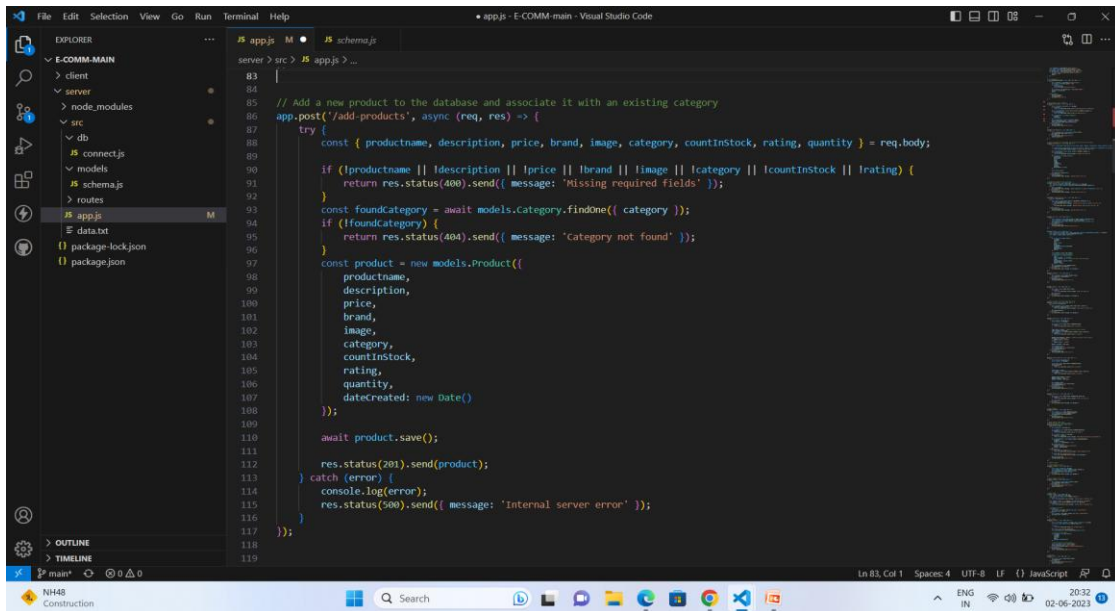
```
server > src > models > JS schemas.js > @ models > Feedback
1 const mongoose = require("mongoose");
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3 const userSchema = new mongoose.Schema({
4   firstname: { type: String, required: true },
5   lastname: { type: String, required: true },
6   username: { type: String, required: true, unique: true },
7   email: { type: String, required: true, unique: true },
8   password: { type: String, required: true }
9 });
10
11 // category schema
12 const categorySchema = new mongoose.Schema({
13   category: { type: String, required: true, unique: true },
14   description: { type: String, }
15 });
16
17 // products schema
18 const productsSchema = new mongoose.Schema({
19   productname: { type: String, required: true },
20   description: { type: String, required: true },
21   price: { type: Number, required: true },
22   brand: { type: String, required: true },
23   images: { type: String, required: true },
24   category: { type: String, ref: 'category', required: true },
25   countInStock: { type: Number, required: true, min: 0, max: 255 },
26   rating: { type: Number, required: true },
27   quantity: { type: Number, default: 1 },
28   dateCreated: { type: Date, default: Date.now }
29 });
30
31 // addtoCart schema
32 const addtoCartSchema = new mongoose.Schema({
33   userId: { type: String, required: true },
34   productId: { type: String, required: true },
35   quantity: { type: Number, minimum: 1, required: true, default: 1 },
36 });
37
```

The screenshot shows a Visual Studio Code editor window with the file `schema.js` open. The Explorer sidebar on the left shows the project structure: `E-COMM-MAIN` > `client` > `server` > `node_modules` > `src` > `db` > `connect.js` > `models` > `schema.js`. The main editor displays the following JavaScript code:

```
server > src > models > JS schema.js > models > Feedback
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265
```

## API's for Add Product:

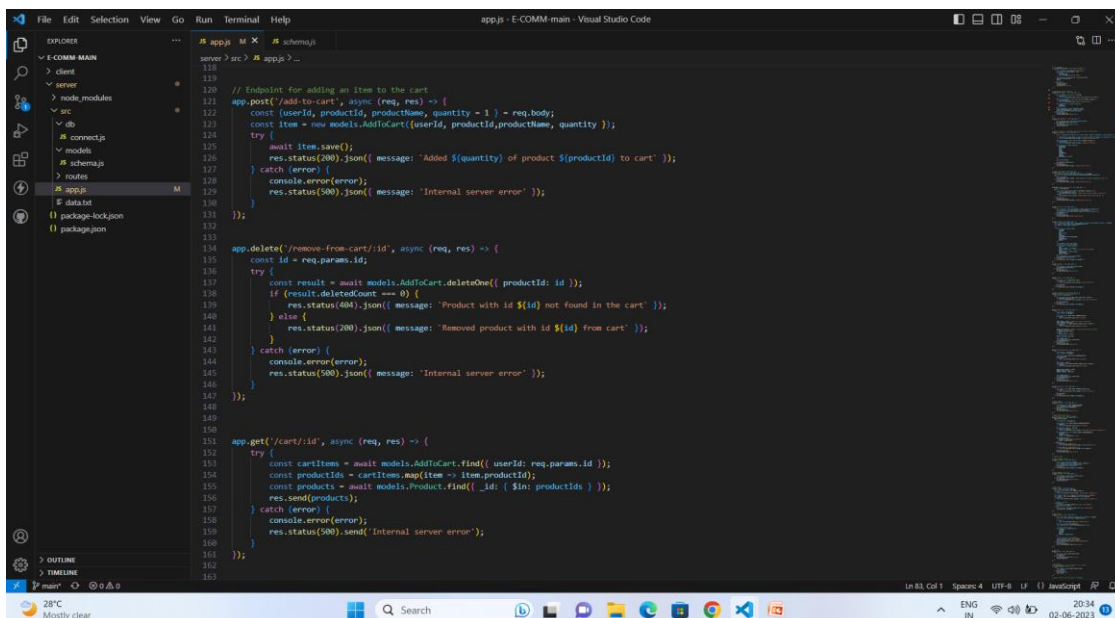
The Add Product API enables users to create and add a new product to a system or database.



```
server > src > JS app.js > ...
83 |
84 |
85 | // Add a new product to the database and associate it with an existing category
86 | app.post('/add-products', async (req, res) => {
87 |   try {
88 |     const { productname, description, price, brand, image, category, countInStock, rating, quantity } = req.body;
89 |
90 |     if (!productname || !description || !price || !brand || !image || !category || !countInStock || !rating) {
91 |       return res.status(400).send({ message: 'Missing required fields' });
92 |     }
93 |     const foundCategory = await models.Category.findOne({ category });
94 |     if (!foundCategory) {
95 |       return res.status(404).send({ message: 'Category not found' });
96 |     }
97 |     const product = new models.Product({
98 |       productname,
99 |       description,
100 |       price,
101 |       brand,
102 |       image,
103 |       category,
104 |       countInStock,
105 |       rating,
106 |       quantity,
107 |       createdAt: new Date()
108 |     });
109 |
110 |     await product.save();
111 |     res.status(201).send(product);
112 |   } catch (error) {
113 |     console.log(error);
114 |     res.status(500).send({ message: 'Internal server error' });
115 |   }
116 | });
117 |
118 |
119 |
```

## API's for Add to Cart, Remove from cart and get cart by id:

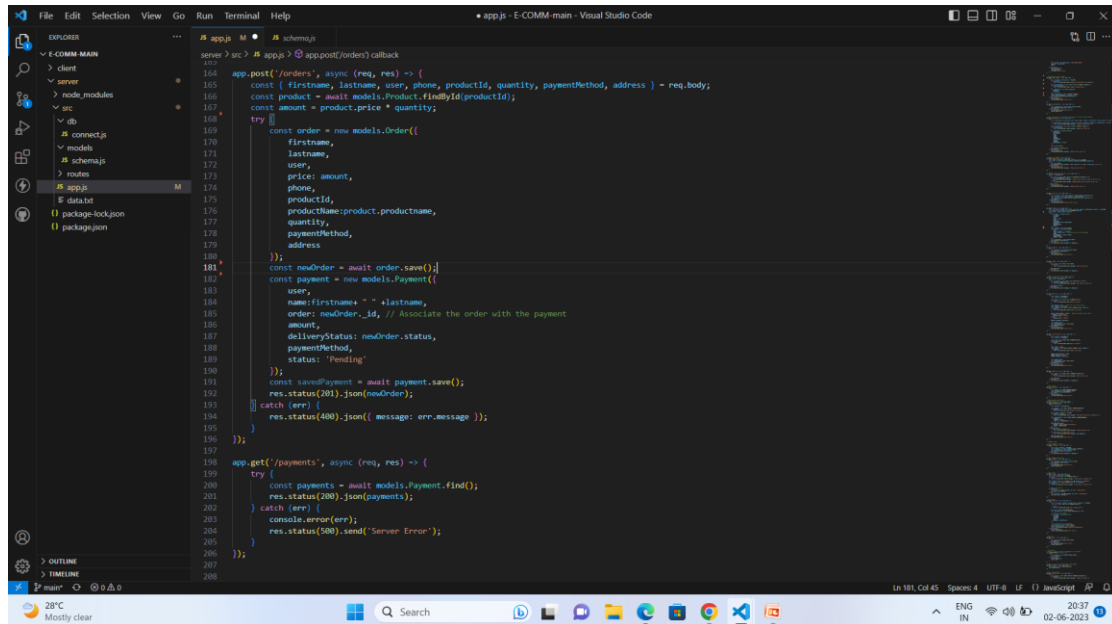
The Add to Cart API enables users to add items to a cart, the Remove from Cart API allows users to remove items from a cart, and the Get Cart by ID API retrieves the cart details based on the provided ID.



```
server > src > JS app.js > ...
120 | // Endpoint for adding an item to the cart
121 | app.post('/add-to-cart', async (req, res) => {
122 |   const { userId, productId, productname, quantity } = req.body;
123 |   const item = new models.AddToCart({ userId, productId, productname, quantity });
124 |   try {
125 |     await item.save();
126 |     res.status(200).json({ message: 'Added $quantity of product $productId to cart' });
127 |   } catch (error) {
128 |     console.error(error);
129 |     res.status(500).json({ message: 'Internal server error' });
130 |   }
131 | });
132 |
133 |
134 | app.delete('/remove-from-cart/:id', async (req, res) => {
135 |   const id = req.params.id;
136 |   try {
137 |     const result = await models.AddToCart.deleteOne({ productId: id });
138 |     if (result.deletedCount == 0) {
139 |       res.status(404).json({ message: 'Product with id $id not found in the cart' });
140 |     } else {
141 |       res.status(200).json({ message: 'Removed product with id $id from cart' });
142 |     }
143 |   } catch (error) {
144 |     console.error(error);
145 |     res.status(500).json({ message: 'Internal server error' });
146 |   }
147 | });
148 |
149 |
150 | app.get('/cart/:id', async (req, res) => {
151 |   try {
152 |     const cartItems = await models.AddToCart.find({ userId: req.params.id });
153 |     const productIds = cartItems.map(item => item.productId);
154 |     const products = await models.Product.find({ _id: { $in: productIds } });
155 |     res.send(products);
156 |   } catch (error) {
157 |     console.error(error);
158 |     res.status(500).send('Internal server error');
159 |   }
160 | });
161 |
162 |
163 |
```

## API's for Post Orders and Get Payments:

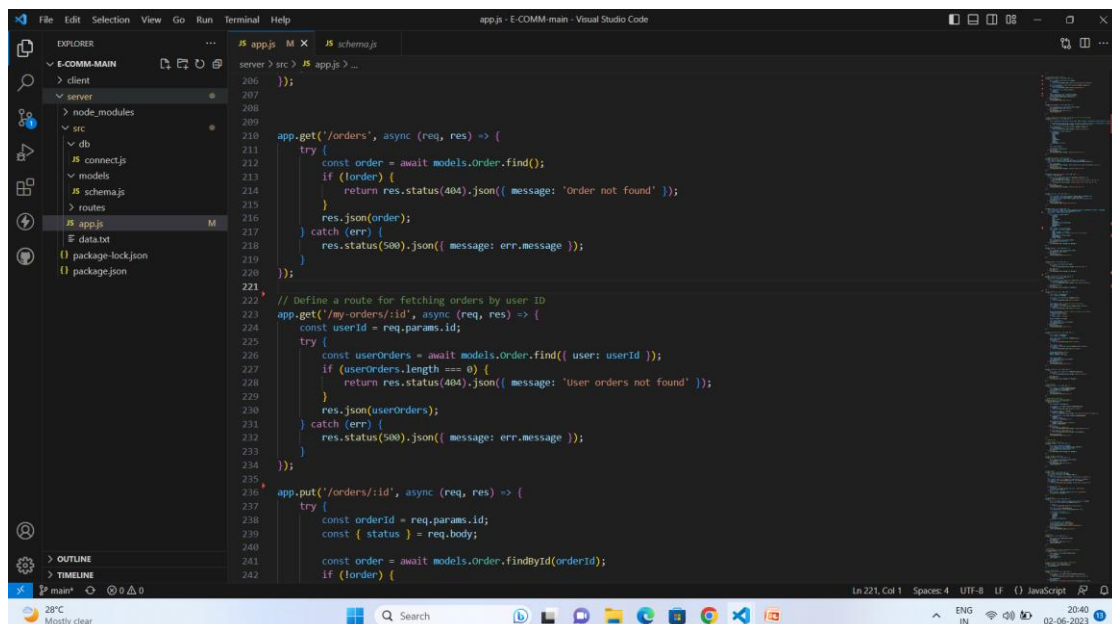
The Post Orders API is used to create and submit new orders, while the Get Payments API retrieves payment information for specific orders.



```
server > src > app.js > app.post('/orders') callback
164 app.post('/orders', async (req, res) => {
165   const { firstname, lastname, user, phone, productId, quantity, paymentMethod, address } = req.body;
166   const product = await models.Product.findById(productId);
167   const amount = product.price * quantity;
168   try {
169     const order = new models.Order({
170       firstname,
171       lastname,
172       user,
173       price: amount,
174       phone,
175       productId,
176       productName: product.productName,
177       quantity,
178       paymentMethod,
179       address
180     });
181     const newOrder = await order.save();
182     const payment = new models.Payment({
183       user,
184       name: firstname + " " + lastname,
185       order: newOrder._id, // Associate the order with the payment
186       amount,
187       deliveryStatus: newOrder.status,
188       paymentMethod,
189       status: 'Pending'
190     });
191     const savedPayment = await payment.save();
192     res.status(201).json(newOrder);
193   } catch (err) {
194     res.status(400).json({ message: err.message });
195   }
196 });
197
198 app.get('/payments', async (req, res) => {
199   try {
200     const payments = await models.Payment.find();
201     res.status(200).json(payments);
202   } catch (err) {
203     console.error(err);
204     res.status(500).send('Server Error');
205   }
206 });
```

## API's for Get orders and get orders based on user Id:

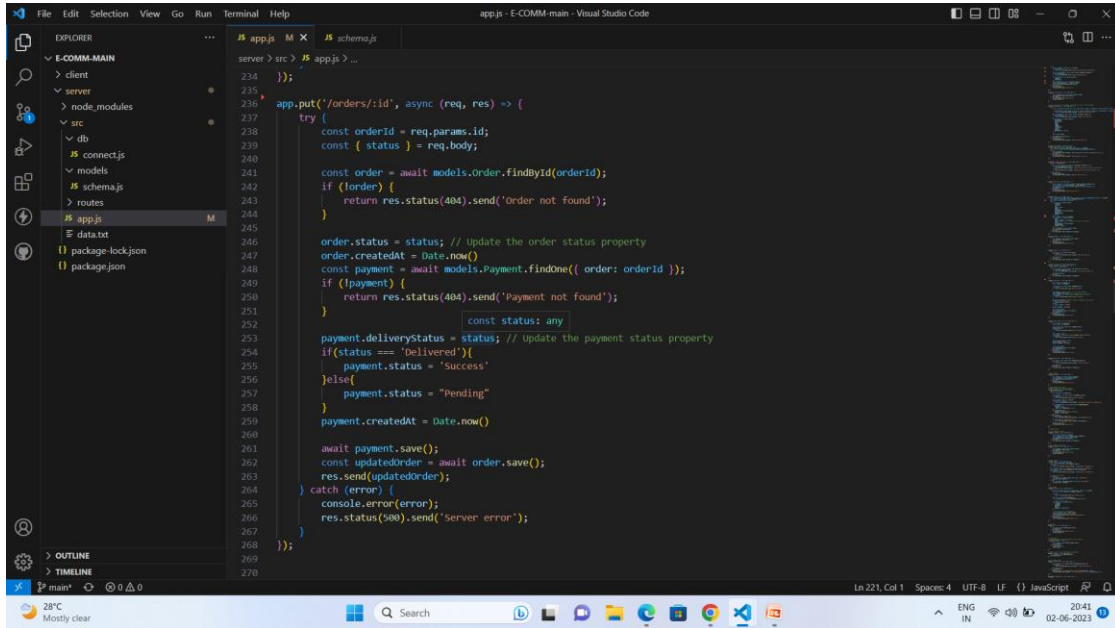
The Get Orders API retrieves all orders from the system, while the Get Orders by User ID API retrieves orders specific to a user ID.



```
server > src > app.js > ...
206 });
207
208 app.get('/orders', async (req, res) => {
209   try {
210     const order = await models.Order.find();
211     if (!order) {
212       return res.status(404).json({ message: 'order not found' });
213     }
214     res.json(order);
215   } catch (err) {
216     res.status(500).json({ message: err.message });
217   }
218 });
219
220 // Define a route for fetching orders by user ID
221 app.get('/my-orders/:id', async (req, res) => {
222   const userId = req.params.id;
223   try {
224     const userOrders = await models.Order.find({ user: userId });
225     if (userOrders.length === 0) {
226       return res.status(404).json({ message: 'User orders not found' });
227     }
228     res.json(userOrders);
229   } catch (err) {
230     res.status(500).json({ message: err.message });
231   }
232 });
233
234 app.put('/orders/:id', async (req, res) => {
235   try {
236     const orderId = req.params.id;
237     const { status } = req.body;
238     const order = await models.Order.findById(orderId);
239     if (!order) {
240       return res.status(404).json({ message: 'order not found' });
241     }
242     order.status = status;
243     await order.save();
244     res.json(order);
245   } catch (err) {
246     res.status(500).json({ message: err.message });
247   }
248 });
```

## API for Update order based on Id:

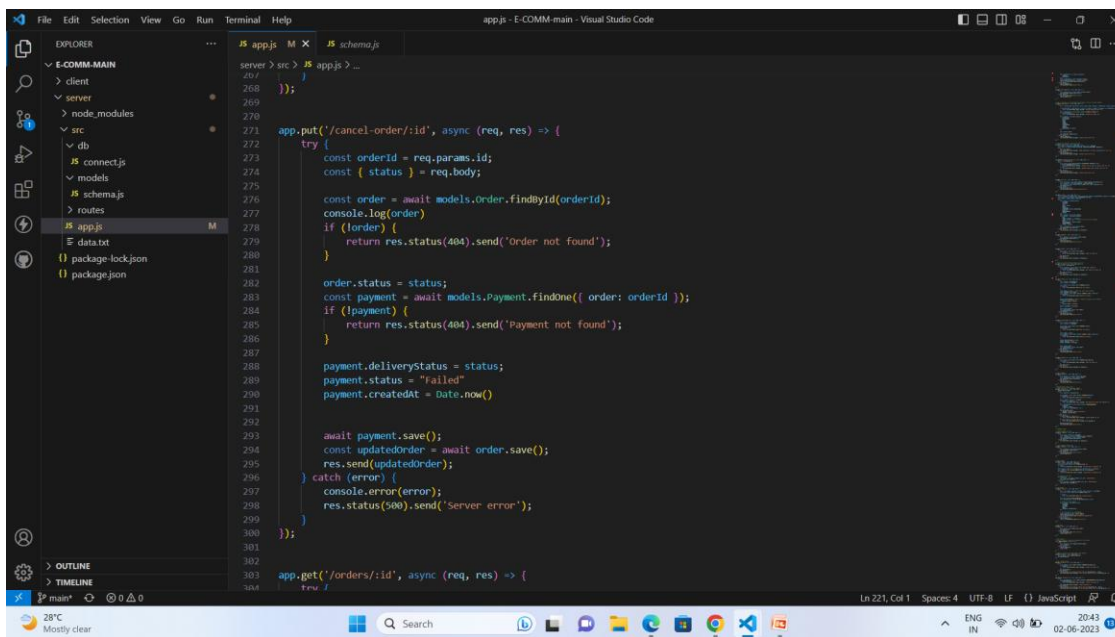
The Update Order API allows users to modify an order based on its unique ID.



```
server > src > JS app.js > ...
234   });
235
236   app.put('/orders/:id', async (req, res) => {
237     try {
238       const orderId = req.params.id;
239       const { status } = req.body;
240
241       const order = await models.Order.findById(orderId);
242       if (!order) {
243         return res.status(404).send('Order not found');
244       }
245
246       order.status = status; // Update the order status property
247       order.createdAt = Date.now();
248       const payment = await models.Payment.findOne({ order: orderId });
249       if (!payment) {
250         return res.status(404).send('Payment not found');
251       }
252       const status = any
253       payment.deliveryStatus = status; // Update the payment status property
254       if (status === 'delivered') {
255         payment.status = 'Success'
256       } else {
257         payment.status = 'Pending'
258       }
259       payment.createdAt = Date.now()
260
261       await payment.save();
262       const updatedOrder = await order.save();
263       res.send(updatedOrder);
264     } catch (error) {
265       console.error(error);
266       res.status(500).send('Server error');
267     }
268   });
269
270
```

## API for cancel order based on Id:

The cancel Order API enables users to cancel an order by its unique ID.

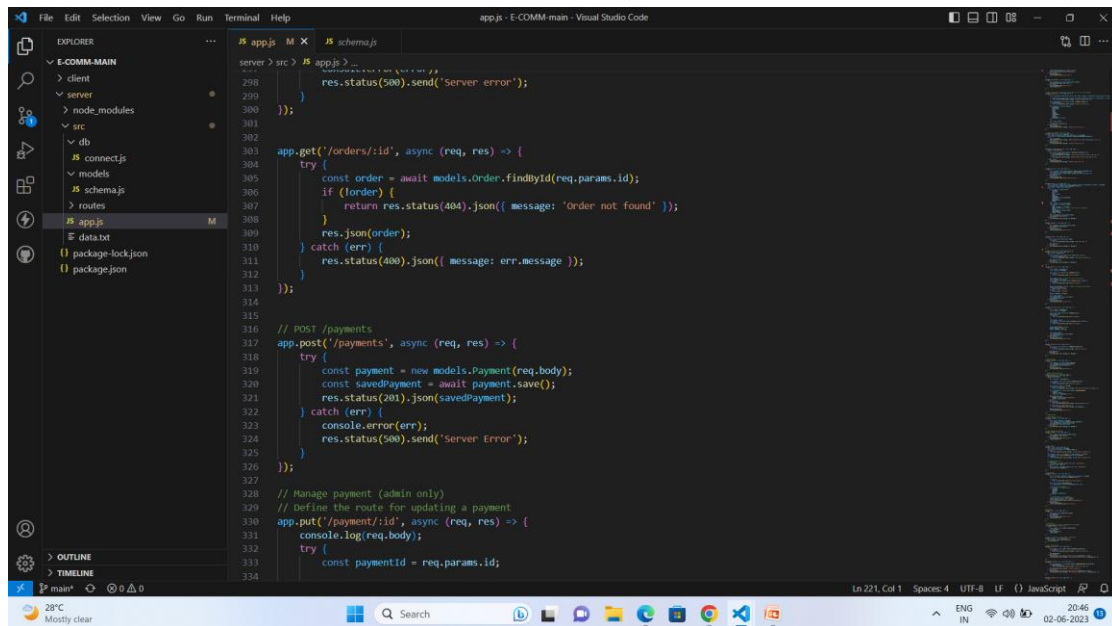


```
server > src > JS app.js > ...
267   });
268
269   app.put('/cancel-order/:id', async (req, res) => {
270     try {
271       const orderId = req.params.id;
272       const { status } = req.body;
273
274       const order = await models.Order.findById(orderId);
275       console.log(order)
276       if (!order) {
277         return res.status(404).send('Order not found');
278       }
279
280       order.status = status;
281       const payment = await models.Payment.findOne({ order: orderId });
282       if (!payment) {
283         return res.status(404).send('Payment not found');
284       }
285
286       payment.deliveryStatus = status;
287       payment.status = "Failed"
288       payment.createdAt = Date.now()
289
290       await payment.save();
291       const updatedOrder = await order.save();
292       res.send(updatedOrder);
293     } catch (error) {
294       console.error(error);
295       res.status(500).send('Server error');
296     }
297   });
298
299
300   app.get('/orders/:id', async (req, res) => {
301     try {
302
303
```

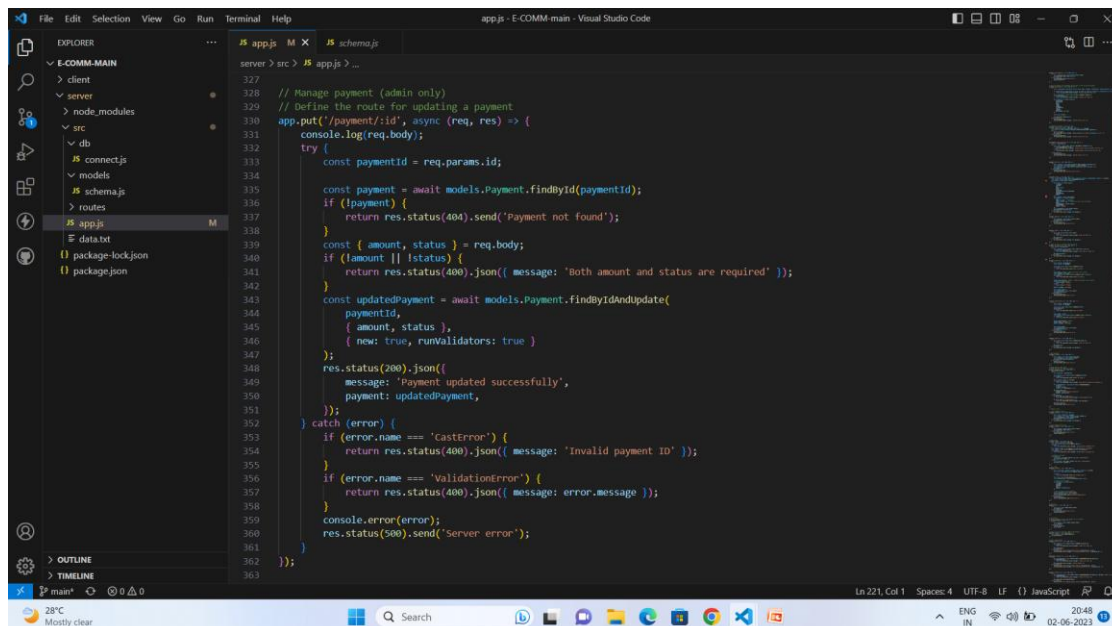


## API's for Get orders based on user Id and post payment:

The Get Orders API retrieves orders based on user ID, while the Post Payment API processes and records a payment transaction.



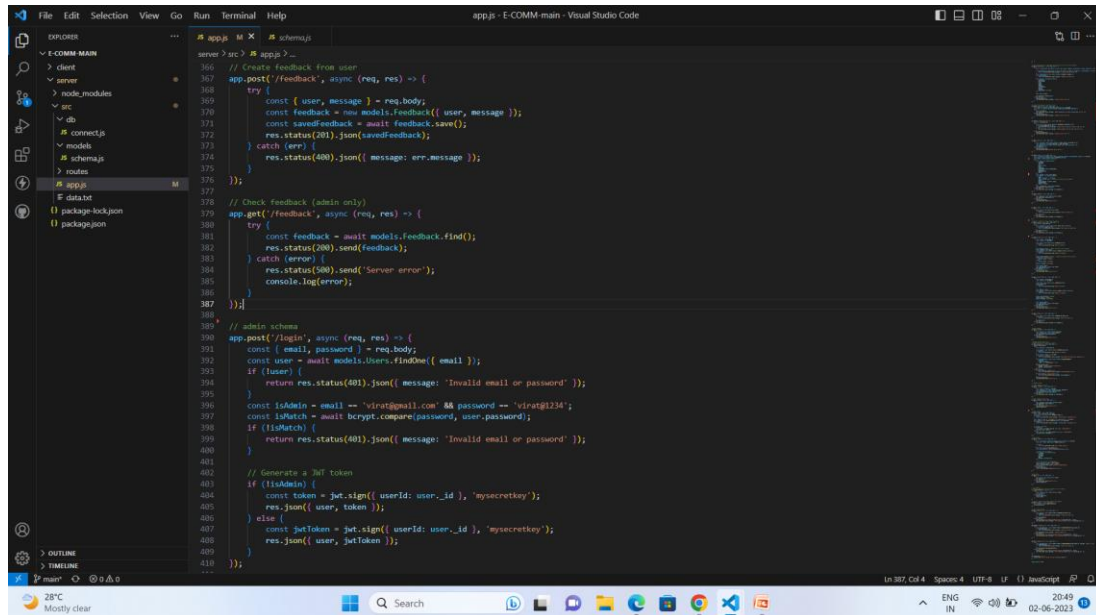
```
server > src > JS app.js > ...
298   res.status(500).send('Server error');
299 }
300 });
301
302
303 app.get('/orders/:id', async (req, res) => {
304   try {
305     const order = await models.Order.findById(req.params.id);
306     if (!order) {
307       return res.status(404).json({ message: 'Order not found' });
308     }
309     res.json(order);
310   } catch (err) {
311     res.status(400).json({ message: err.message });
312   }
313 });
314
315
316 // POST /payments
317 app.post('/payments', async (req, res) => {
318   try {
319     const payment = new models.Payment(req.body);
320     const savedPayment = await payment.save();
321     res.status(201).json(savedPayment);
322   } catch (err) {
323     console.error(err);
324     res.status(500).send('Server Error');
325   }
326 });
327
328 // Manage payment (admin only)
329 // Define the route for updating a payment
330 app.put('/payment/:id', async (req, res) => {
331   console.log(req.body);
332   try {
333     const paymentId = req.params.id;
334     const payment = await models.Payment.findById(paymentId);
335     if (!payment) {
336       return res.status(404).send('Payment not found');
337     }
338     const { amount, status } = req.body;
339     if (!amount || !status) {
340       return res.status(400).json({ message: 'Both amount and status are required' });
341     }
342     const updatedPayment = await models.Payment.findByIdAndUpdate(
343       paymentId,
344       { amount, status },
345       { new: true, runValidators: true }
346     );
347     res.status(200).json({
348       message: 'Payment updated successfully',
349       payment: updatedPayment,
350     });
351   } catch (error) {
352     if (error.name === 'CastError') {
353       return res.status(400).json({ message: 'Invalid payment ID' });
354     }
355     if (error.name === 'ValidationError') {
356       return res.status(400).json({ message: error.message });
357     }
358     console.error(error);
359     res.status(500).send('Server error');
360   }
361 });
362
363 }
```



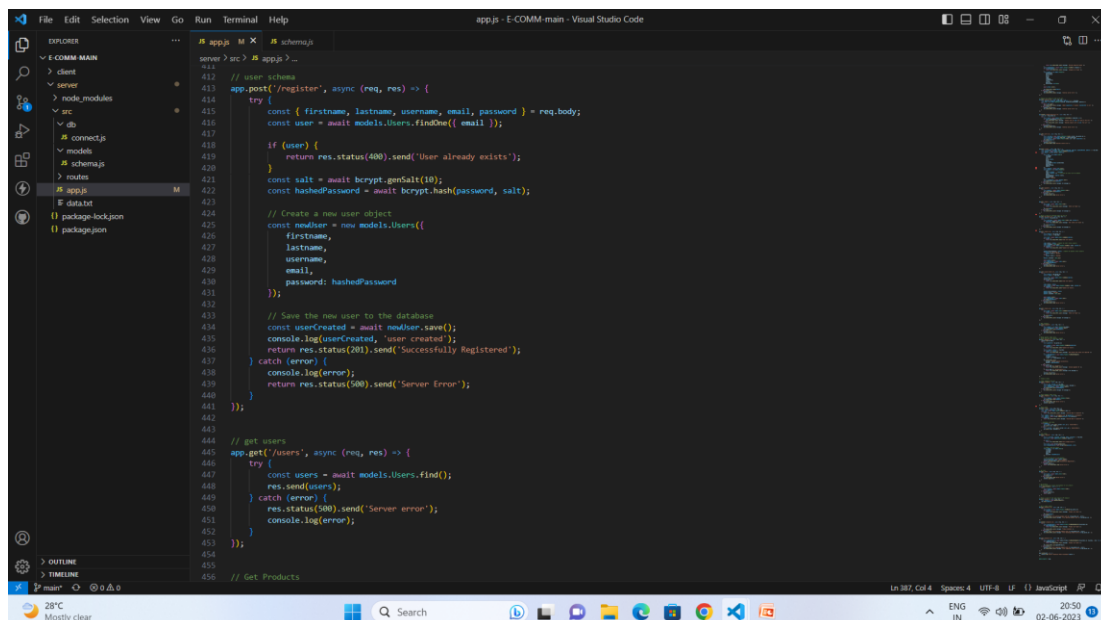
```
server > src > JS app.js > ...
327
328 // Manage payment (admin only)
329 // Define the route for updating a payment
330 app.put('/payment/:id', async (req, res) => {
331   console.log(req.body);
332   try {
333     const paymentId = req.params.id;
334     const payment = await models.Payment.findById(paymentId);
335     if (!payment) {
336       return res.status(404).send('Payment not found');
337     }
338     const { amount, status } = req.body;
339     if (!amount || !status) {
340       return res.status(400).json({ message: 'Both amount and status are required' });
341     }
342     const updatedPayment = await models.Payment.findByIdAndUpdate(
343       paymentId,
344       { amount, status },
345       { new: true, runValidators: true }
346     );
347     res.status(200).json({
348       message: 'Payment updated successfully',
349       payment: updatedPayment,
350     });
351   } catch (error) {
352     if (error.name === 'CastError') {
353       return res.status(400).json({ message: 'Invalid payment ID' });
354     }
355     if (error.name === 'ValidationError') {
356       return res.status(400).json({ message: error.message });
357     }
358     console.error(error);
359     res.status(500).send('Server error');
360   }
361 });
362
363 }
```

## API's for feedback and login:

The Feedback API enables users to submit feedback or suggestions, while the Login API allows users to authenticate and access secured areas of an application or website.



```
server > cd > npm run dev
366 // Create feedback from user
367 app.post('/feedback', async (req, res) => {
368   try {
369     const { user, message } = req.body;
370     const feedback = new models.feedback({ user, message });
371     const savedFeedback = await feedback.save();
372     res.status(201).json(savedFeedback);
373   } catch (err) {
374     res.status(400).json({ message: err.message });
375   }
376 });
377
378 // Check feedback (admin only)
379 app.get('/feedback', async (req, res) => {
380   try {
381     const feedback = await models.feedback.find();
382     res.status(200).send(feedback);
383   } catch (error) {
384     res.status(500).send('Server error');
385     console.log(error);
386   }
387 });
388
389 // Admin schema
390 app.post('/login', async (req, res) => {
391   const { email, password } = req.body;
392   const user = await models.Users.findOne({ email });
393   if (!user) {
394     return res.status(401).json({ message: 'Invalid email or password' });
395   }
396   const isAdmin = email == 'virat@gmail.com' && password == 'virat@1234';
397   const isMatch = await bcrypt.compare(password, user.password);
398   if (!isMatch) {
399     return res.status(401).json({ message: 'Invalid email or password' });
400   }
401
402   // Generate a JWT token
403   if (!isAdmin) {
404     const token = jwt.sign({ userId: user._id }, 'mysecretkey');
405     res.json({ user, token });
406   } else {
407     const jwtToken = jwt.sign({ userId: user._id }, 'mysecretkey');
408     res.json({ user, jwtToken });
409   }
410 });
```

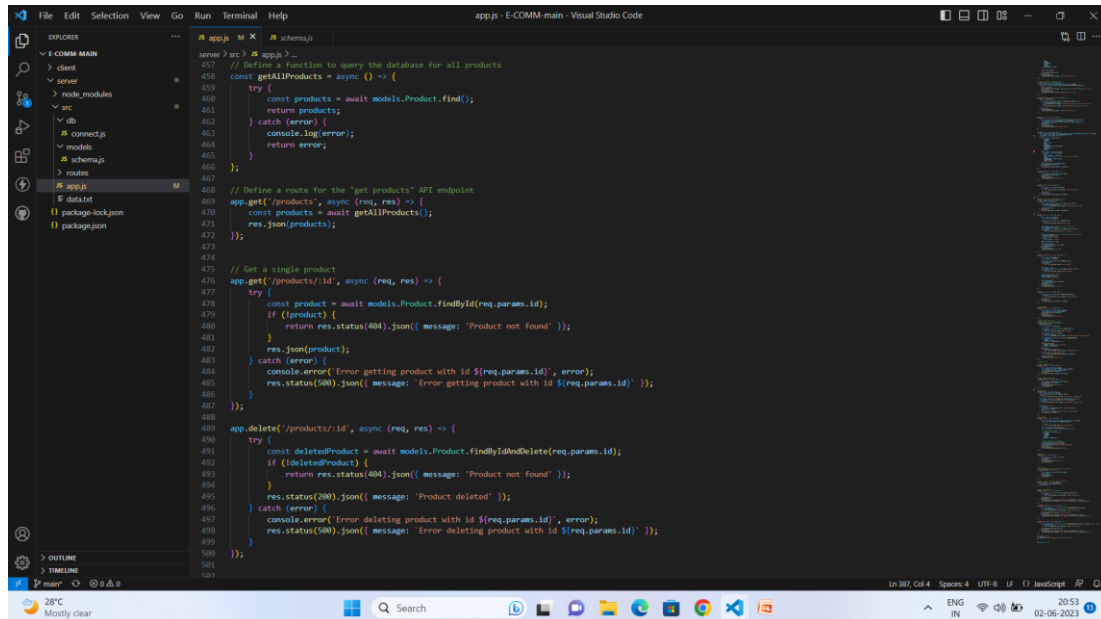


```
server > cd > npm run dev
412 // user schema
413 app.post('/register', async (req, res) => {
414   try {
415     const { firstname, lastname, username, email, password } = req.body;
416     const user = await models.Users.findOne({ email });
417
418     if (user) {
419       return res.status(400).send('User already exists');
420     }
421     const salt = await bcrypt.genSalt(10);
422     const hashedPassword = await bcrypt.hash(password, salt);
423
424     // Create a new user object
425     const newUser = new models.Users({
426       firstname,
427       lastname,
428       username,
429       email,
430       password: hashedPassword
431     });
432
433     // Save the new user to the database
434     const userCreated = await newUser.save();
435     console.log(userCreated, 'user created');
436     return res.status(201).send('Successfully Registered');
437   } catch (error) {
438     console.log(error);
439     return res.status(500).send('Server Error');
440   }
441 });
442
443 // get users
444 app.get('/users', async (req, res) => {
445   try {
446     const users = await models.Users.find();
447     res.send(users);
448   } catch (error) {
449     res.status(500).send('Server error');
450     console.log(error);
451   }
452 });
453
454 // Get Products
```

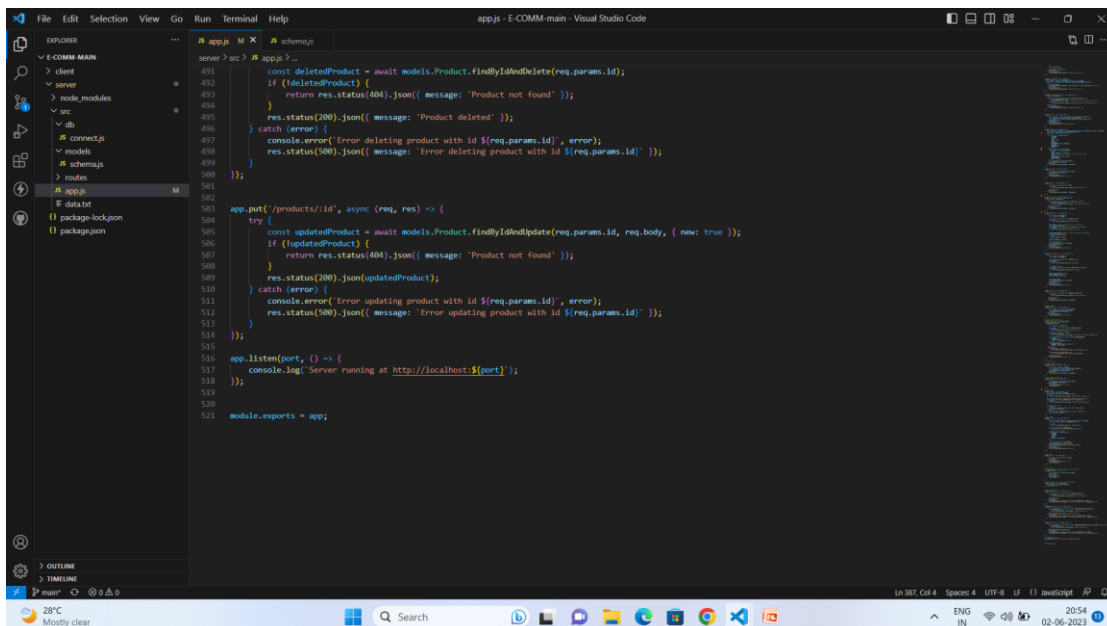


## API's for Products:

The Product API enables users to perform various operations related to products, such as creating, updating, deleting, and retrieving product information from a system or database.



```
server > src > # app.js ...
458 const getAllProducts = async () => {
459   // Define a function to query the database for all products
460   try {
461     const products = await models.Product.find();
462     return products;
463   } catch (error) {
464     console.log(error);
465     return error;
466   }
467 };
468 // Define a route for the "get products" API endpoint
469 app.get('/products', async (req, res) => {
470   const products = await getAllProducts();
471   res.json(products);
472 });
473 // Get a single product
474 app.get('/products/:id', async (req, res) => {
475   try {
476     const product = await models.Product.findById(req.params.id);
477     if (!product) {
478       return res.status(404).json({ message: 'Product not found' });
479     }
480     res.json(product);
481   } catch (error) {
482     console.error('Error getting product with id ${req.params.id}', error);
483     res.status(500).json({ message: 'Error getting product with id ${req.params.id}' });
484   }
485 });
486 // Delete a product
487 app.delete('/products/:id', async (req, res) => {
488   try {
489     const deletedProduct = await models.Product.findByIdAndDelete(req.params.id);
490     if (!deletedProduct) {
491       return res.status(404).json({ message: 'Product not found' });
492     }
493     res.status(200).json({ message: 'Product deleted' });
494   } catch (error) {
495     console.error('Error deleting product with id ${req.params.id}', error);
496     res.status(500).json({ message: 'Error deleting product with id ${req.params.id}' });
497   }
498 });
499 // ...
500
501
502
```



```
server > src > # app.js ...
491 const deletedProduct = await models.Product.findByIdAndDelete(req.params.id);
492 if (!deletedProduct) {
493   return res.status(404).json({ message: 'Product not found' });
494 }
495 res.status(200).json({ message: 'Product deleted' });
496 } catch (error) {
497   console.error('Error deleting product with id ${req.params.id}', error);
498   res.status(500).json({ message: 'Error deleting product with id ${req.params.id}' });
499 }
500 });
501 // ...
502
503 app.put('/products/:id', async (req, res) => {
504   try {
505     const updatedProduct = await models.Product.findByIdAndUpdate(req.params.id, req.body, { new: true });
506     if (!updatedProduct) {
507       return res.status(404).json({ message: 'Product not found' });
508     }
509     res.status(200).json(updatedProduct);
510   } catch (error) {
511     console.error('Error updating product with id ${req.params.id}', error);
512     res.status(500).json({ message: 'Error updating product with id ${req.params.id}' });
513   }
514 });
515 // ...
516
517 app.listen(port, () => {
518   console.log('Server running at http://localhost:${port}');
519 });
520
521 module.exports = app;
522
```

END.

# Frontend:

## User Interface (UI) Design:

- Create a visually appealing and consistent design using modern design principles.
- Use a UI design tool like Adobe XD, Sketch, Figma, or InVision to create wireframes and mockups.
- Pay attention to typography, color schemes, spacing, and visual hierarchy.
- Use responsive design techniques to ensure the app looks great on different devices.

## Responsive Design:

- Utilize CSS media queries and responsive design frameworks like Bootstrap or Tailwind CSS to create a responsive layout.
- Test your app on various devices and screen sizes to ensure a seamless user experience.

## Product Catalog:

- Design and implement a product listing page that displays product images, titles, descriptions, prices, and other relevant details.
- Implement search functionality to allow users to find products easily.
- Include filters and sorting options to enhance the browsing experience.

## Shopping Cart and Checkout Process:

- Design and develop a shopping cart component to allow users to add products, view cart contents, update quantities, and remove items.
- Create a checkout process with multiple steps, including shipping information, payment selection, and order review.

## User Authentication and Account Management:

- Design and implement a user registration and login system.
- Create user profile pages where users can view and edit their personal information, addresses, payment methods, and order history.
- Implement authentication guards to restrict access to certain pages or features.

## Payment Integration:

- Integrate with a payment gateway service like Stripe, PayPal, or Braintree.
- Implement a secure and seamless payment flow that allows users to enter payment details and complete transactions.
- Handle transaction success and failure scenarios and provide appropriate feedback to the user.

## Accessibility:

- Follow the Web Content Accessibility Guidelines (WCAG) to ensure your app is accessible to users with disabilities.
- Use semantic HTML tags and proper ARIA attributes.
- Provide alternative text for images and captions for videos.
- Ensure keyboard navigation support and focus indicators.
- Test your app using accessibility evaluation tools and conduct manual testing with assistive technologies.