FLOWER AND GIFT DELIVERY APP

Introduction:

Welcome to our Flower and Gift Delivery App! Our platform is dedicated to creating a delightful online shopping experience for all your floral and gifting needs. Whether you're celebrating a special occasion, expressing love and appreciation, or simply spreading joy, our app offers a wide selection of beautiful flowers, thoughtful gifts, and personalized surprises.

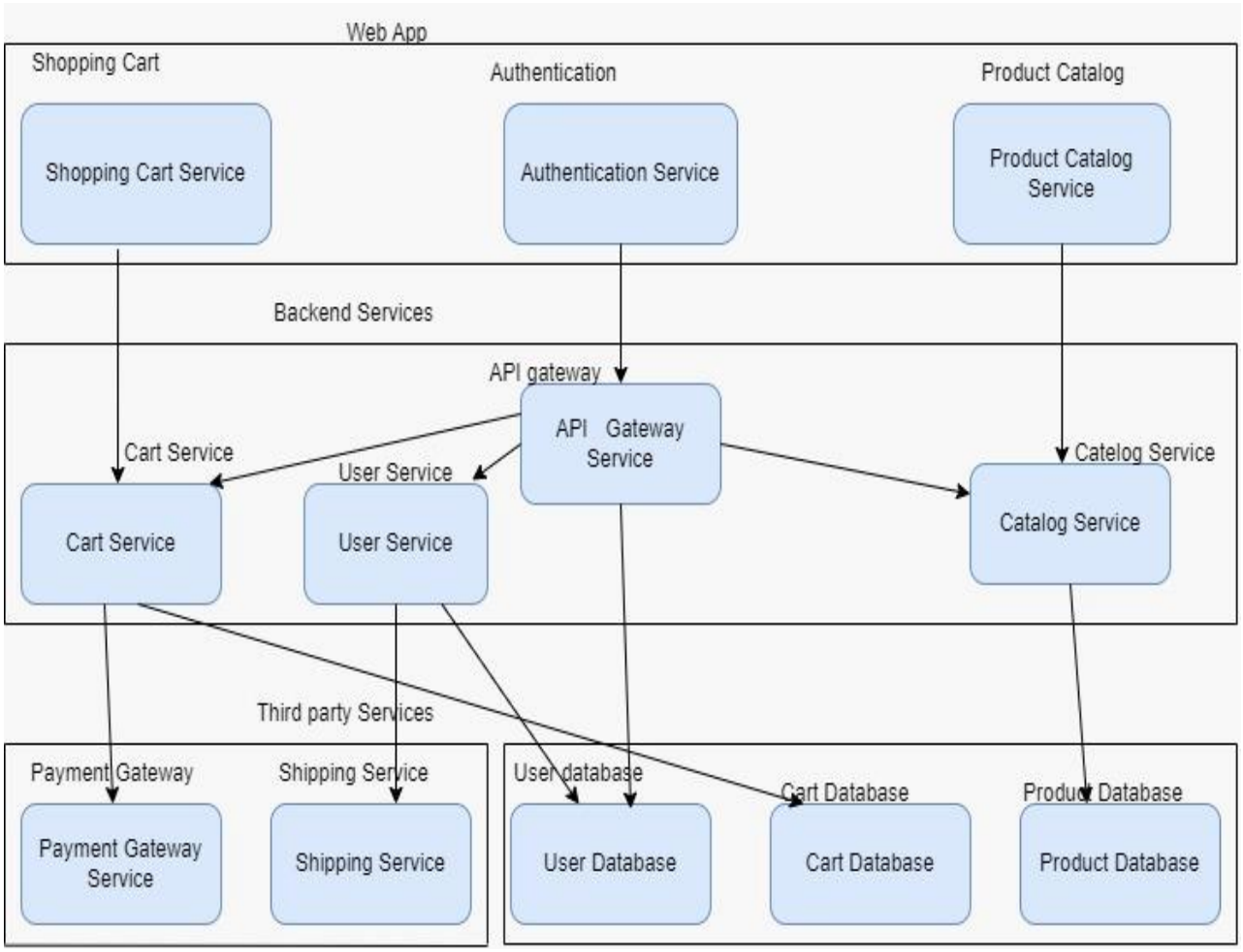
With a user-friendly interface and intuitive design, our e-commerce app allows you to effortlessly explore various categories, view detailed product descriptions, and add items to your cart for easy ordering. You can browse through a diverse range of flower arrangements, bouquets, chocolates, gift hampers, and more to find the perfect gift for your loved ones.

Our priority is to ensure customer satisfaction by providing a seamless and hassle-free shopping journey. From choosing the right flowers to customizing gift options, our app is designed to make your shopping experience both enjoyable and convenient.

For our valued sellers and administrators, we offer robust backend functionalities. Sellers can easily manage their product listings, update flower arrangements, monitor inventory, and process orders efficiently. Meanwhile, our dedicated administrators are here to assist you with any inquiries, ensure secure payment processing, and monitor the overall app performance.

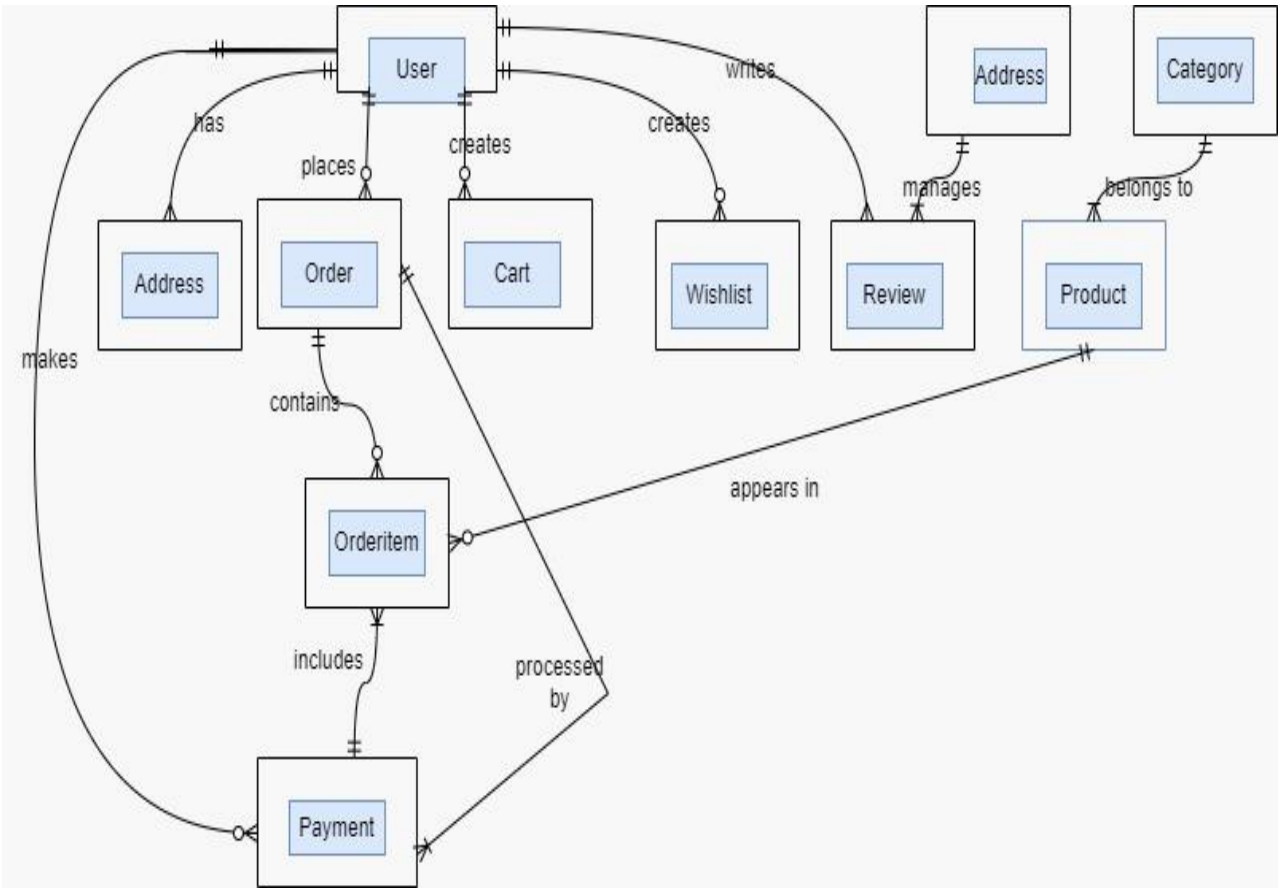
We are excited to have you with us on this journey, and we look forward to delivering happiness and joy through our Flower and Gift Delivery App. Happy shopping and spreading smiles with our e-commerce platform!

Technical Architecture:



The technical architecture of an flower and gift delivery app typically involves a client-server model, wherethe frontend represents the frontend and the backend serves as the server. The frontend is responsible for user interface, interaction, and presentation, while the backend handles data storage, business logic, and integration with external services like payment gateways and databases. Communication between the frontend and backend is typically facilitated through APIs, enabling seamless data exchange and functionality.

ER Diagram:



The Entity-Relationship (ER) diagram for a 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 theirpreferences, 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 dashboardto 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 anapplication:

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 cl Wait for the project to be created:

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

Navigate into the project directory:

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

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 e-commerce app.
- Execute the following command to clone the repository:

  git clone: https://github.com/NAAGAVARSHINI/Flower_and_Gift_Delivery.git

2. Install Dependencies:

- Navigate into the cloned repository directory:

  cd DeliveryApp
- 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 will be accessible at http://localhost:5100 by default. You canchange 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 e-commerce app's homepage, indicating that the installation and setup were successful.

Project Repository Link: https://github.com/NAAGAVARSHINI/Flower_and_Gift_Delivery.git.

Project Working Link:
https://drive.google.com/file/d/16J9znuvUF4pzhjTRIjICD5acjHYMHhDj/view?usp=sharing

Congratulations! You have successfully installed and set up the flower and gift delivery 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 –Customer and Admin. 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.

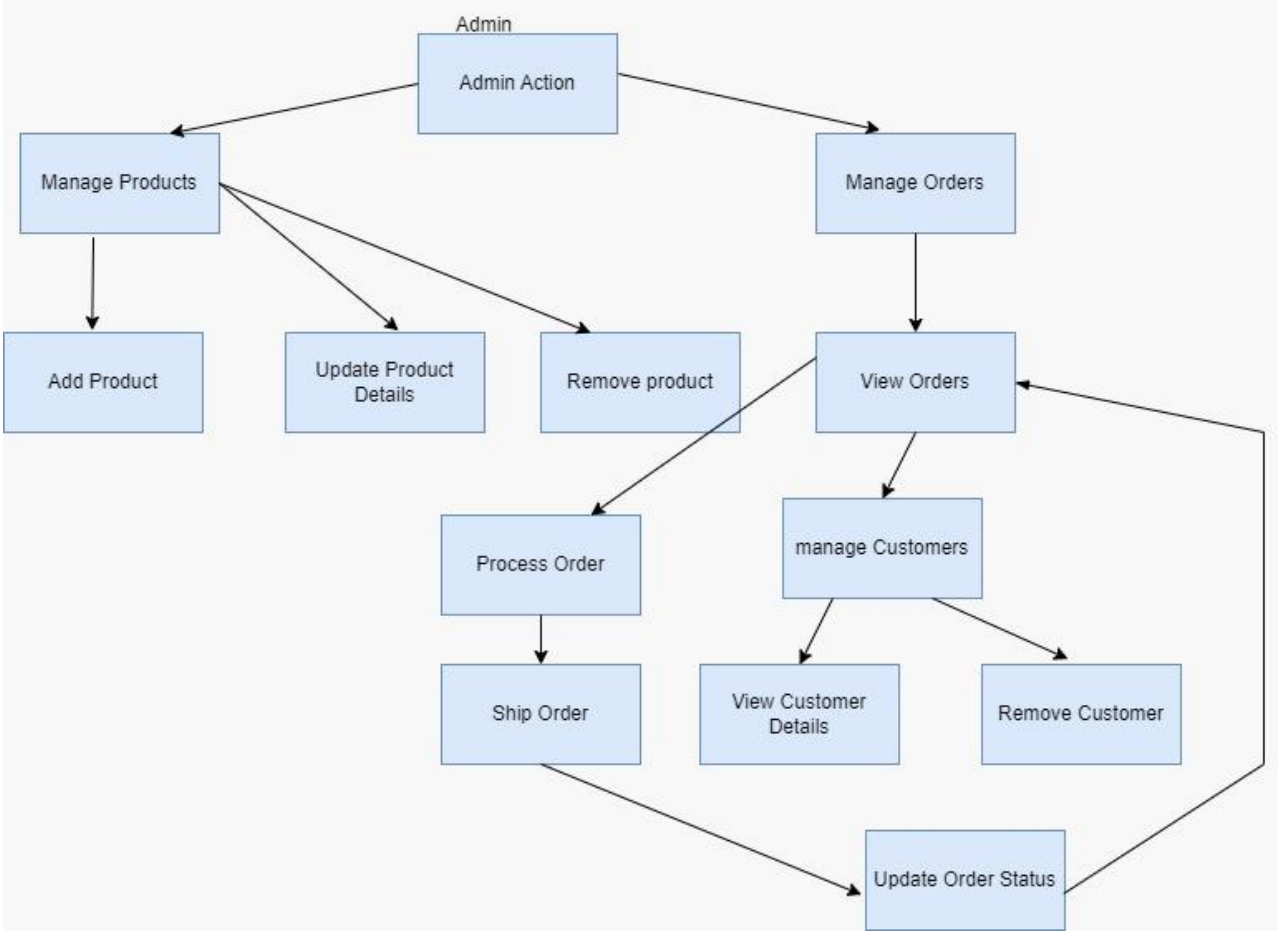
Admin:

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

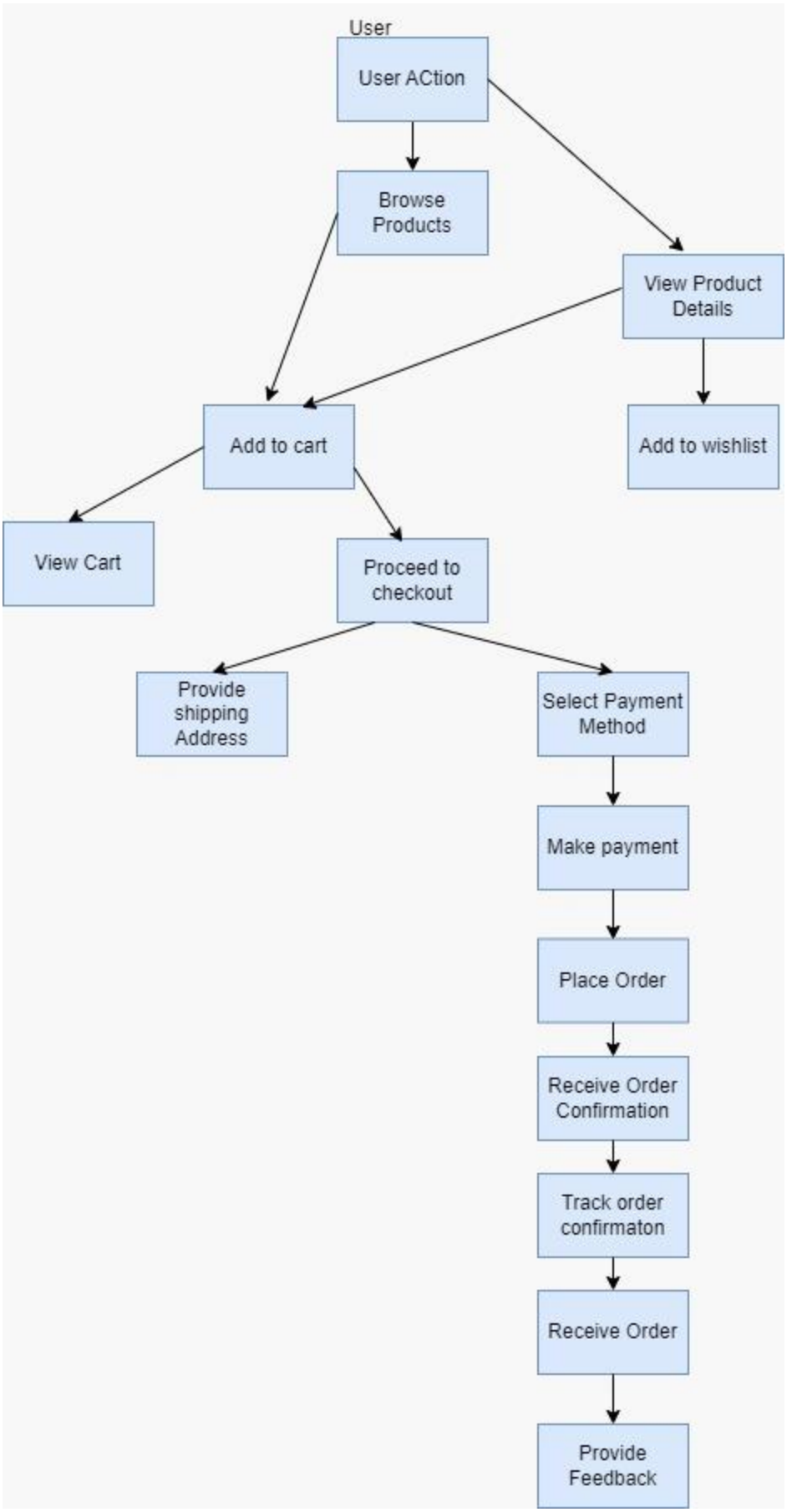
These roles and responsibilities are aimed at ensuring a smooth and efficient operation of the flower and gift delivery app, providing a seamless experience for customers, sellers, and administrators.

Admin and User Flow:

Admin:



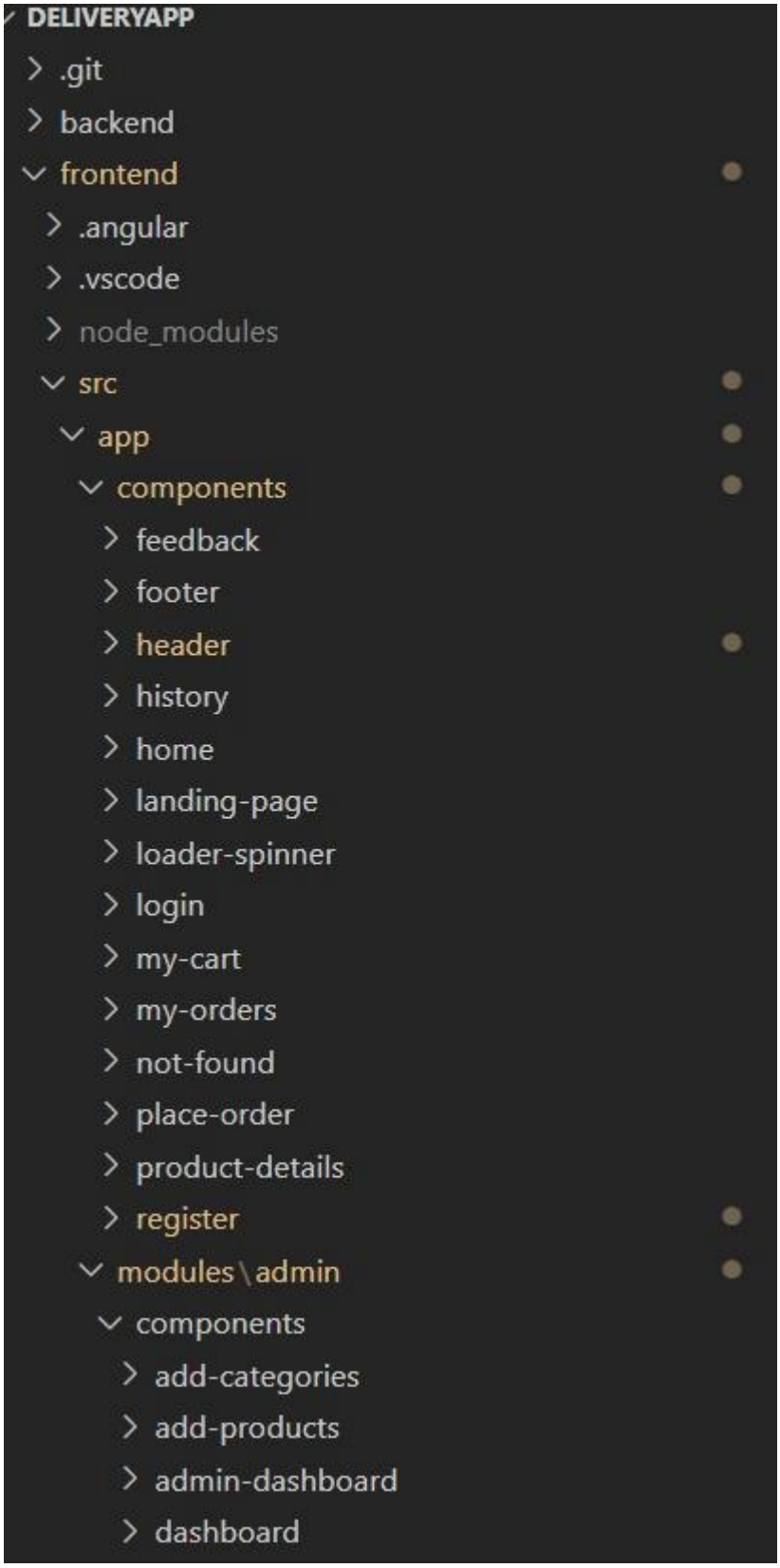
Userflow:

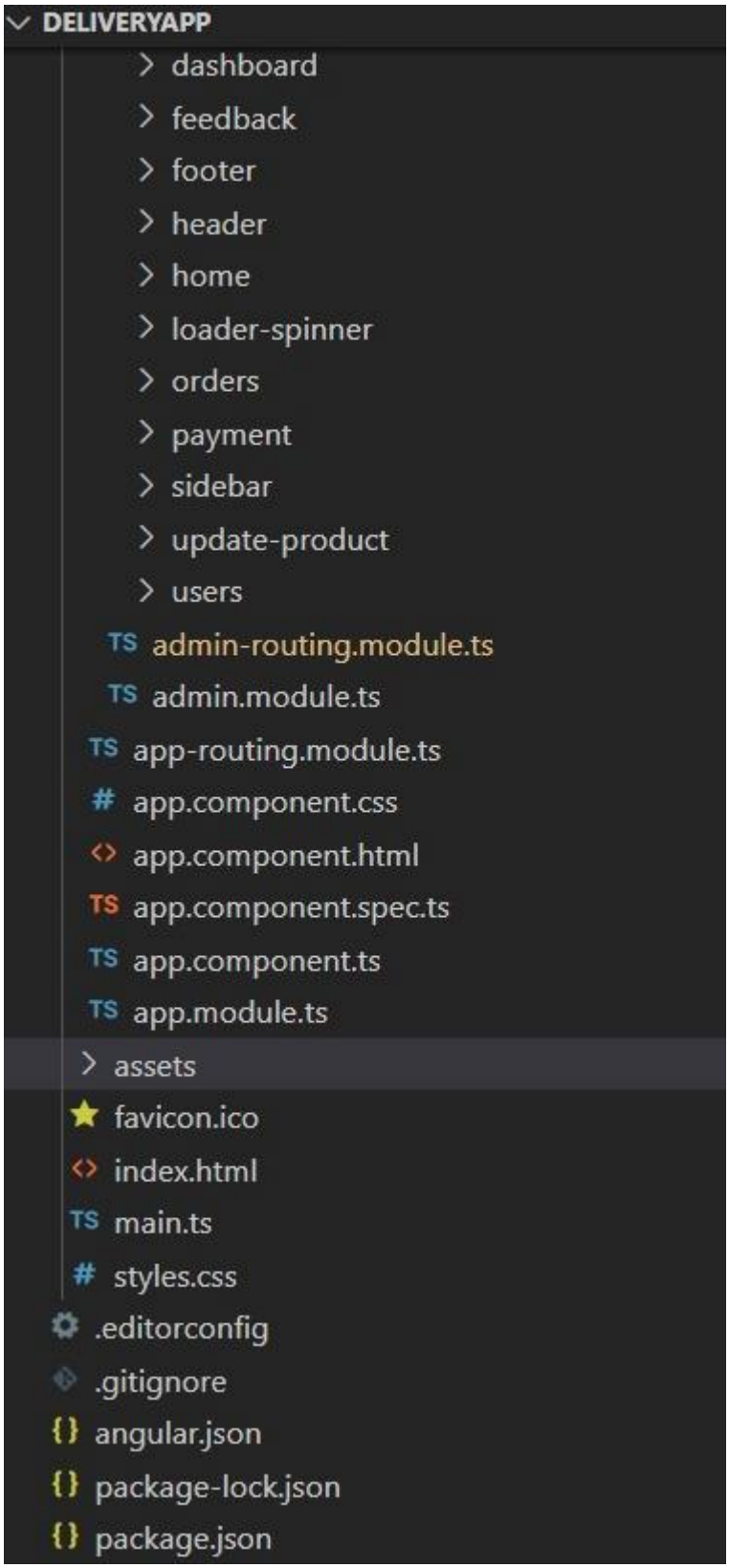

User
User ACtion
Browse Products
View Product Details
Add to cart
Add to wishlist
View Cart
Proceed to checkout
Provide shipping Address
Select Payment Method
Make payment
Place Order
Receive Order Confirmation
Track order confirmaton
Receive Order
Provide Feedback

The project flow for a flower and gift delivery app involves user actions such as browsing products, addingitems 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:

Front End:

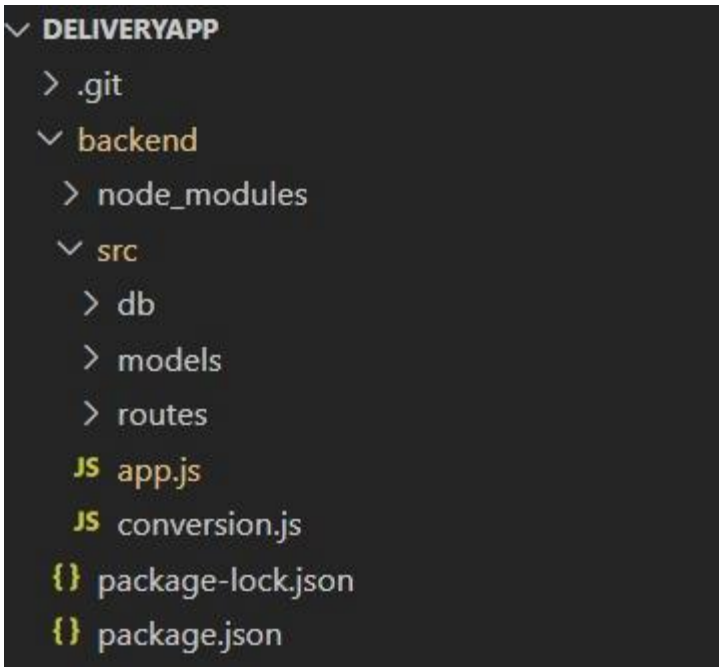



DELIVERYAPP
dashboard
feedback
footer
header
home
loader-spinner
orders
payment
sidebar
update-product
users
admin-routing.module.ts
admin.module.ts
app-routing.module.ts
app.component.css
app.component.html
app.component.spec.ts
app.component.ts
app.module.ts
assets
favicon.ico
index.html
main.ts
styles.css
.editorconfig
.gitignore
angular.json
package-lock.json
package.json

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.

Back End:



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:

- Frontend folders.
- Backend 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.

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

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 Use case:

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 flower and gift delivery app

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 Tail-wind CSS to create a responsive layout.
- Test your app on various devices and screen sizes to ensure a seamless user experi-ence.

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 COD, PayPal, or Credit-Card.
- Implement a secure and seamless payment flow that allows users to enter payment details and complete transactions.