NAAN MUDHALVAN

MERN STACK POWERED BY MONGODB

PROJECT NAME: GROCERY WEBAPP

TEAM MEMBERS:

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Aim:

The aim of the **Grocery Webapp** project is to design and develop an interactive, efficient, and user-friendly web application using the MERN stack (MongoDB, Express.js, React.js, and Node.js). This platform will provide users with an easy-to-navigate interface to browse, search, and purchase grocery items. At the same time, administrators will be able to manage inventory, process orders, and handle customer data seamlessly. The application will ensure a smooth shopping experience for customers while providing real-time updates, recommendations, and secure payment options.

Roles And Responsibility:

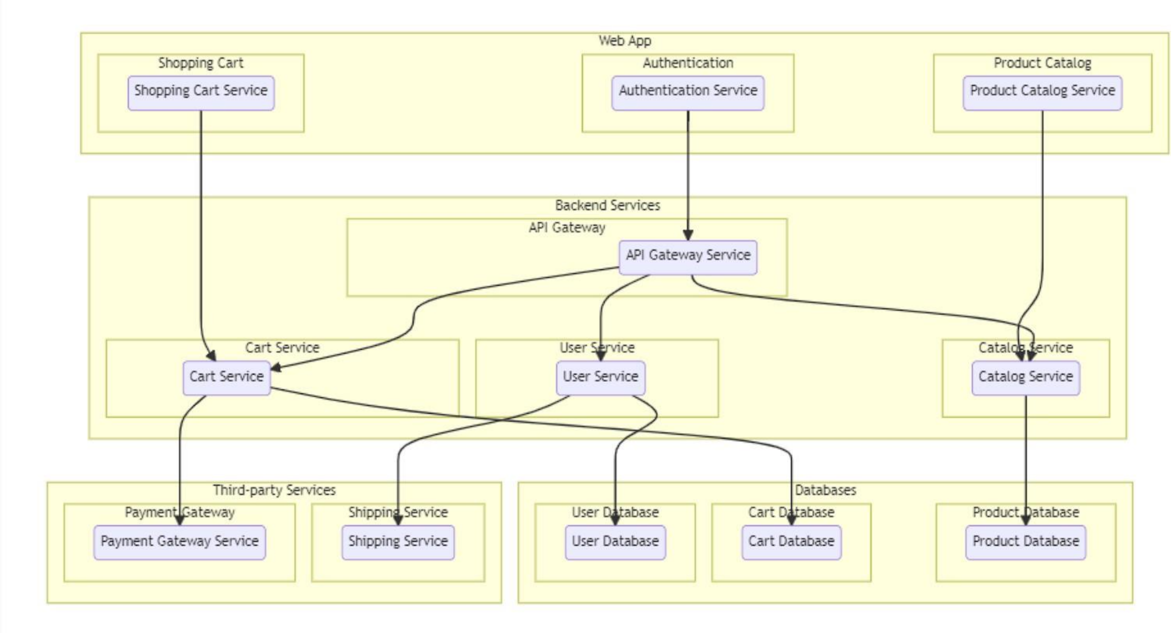
1-Admin Role:

- **Responsibilities**: The admin role has full control and administrative privileges over the system.
- **Permissions:**
    - **Manage:** Admins can add, edit, and delete shop information along with products.
    - **Manage product bookings:** Admins can view and manage all product bookings made by users and agents, including canceling or modifying product bookings.
    - **Manage users:** Admins can create, edit, and delete user accounts, as well as manage their roles and permissions.
    - **Generate reports:** Admins have access to generate reports and analytics on product booking details, booking counts, and sales reports.
    - **Logout:** Finally, they can logout from the Grocery Webapp.

User Role:

- **Responsibilities:** Users are the customers of the online shopping web application who can search for products, and make product bookings.
- **Permissions:**
    - **View products**: Users can search for products, based on interest.
    - **Product bookings:** Users can select products that are available and complete the order process.
    - **Manage product booking:** Users can view their own product order bookings, modify booking details, track booking details, and cancel their bookings
    - **Manage cart**: Users can view their cart details and modify them if needed.
    - **Logout:** Finally, they can logout from the Grocery Webapp.

Activity diagram:



Application Flow:

1. Required tools and software:

- Node.js.
- MongoDB.
- Create-react-app.
- Express.js
- Angular

2. Create project folders and files:

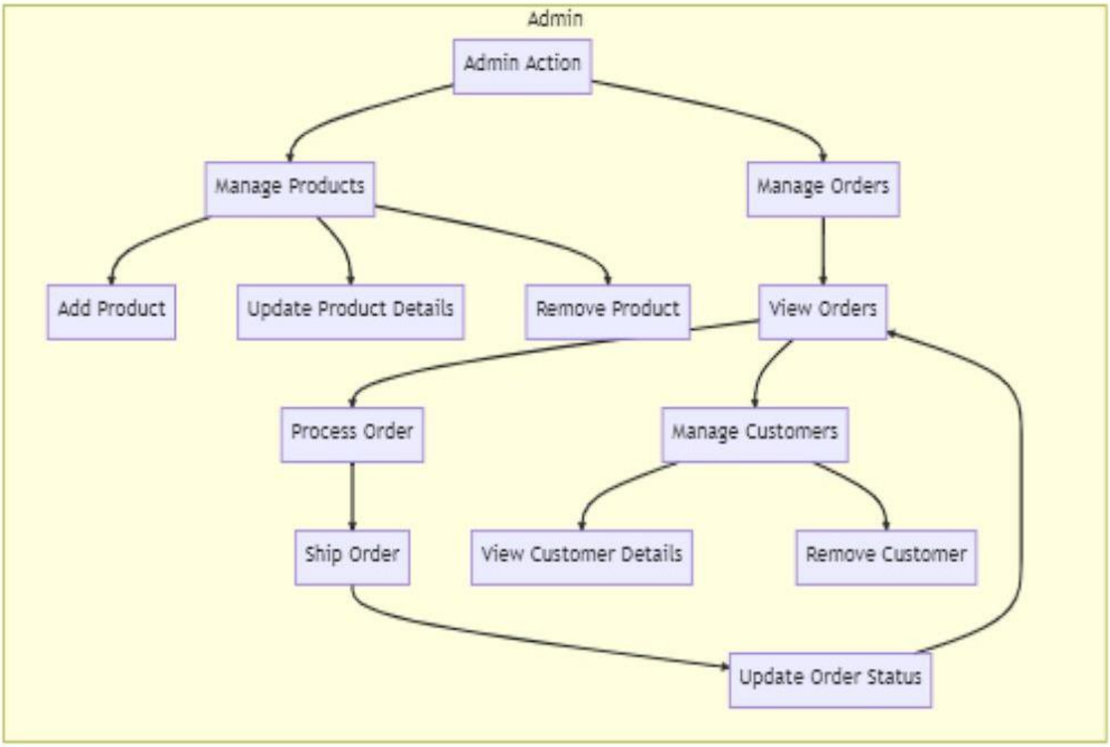
- Client folders.
- Server folders.

3. Install Packages:

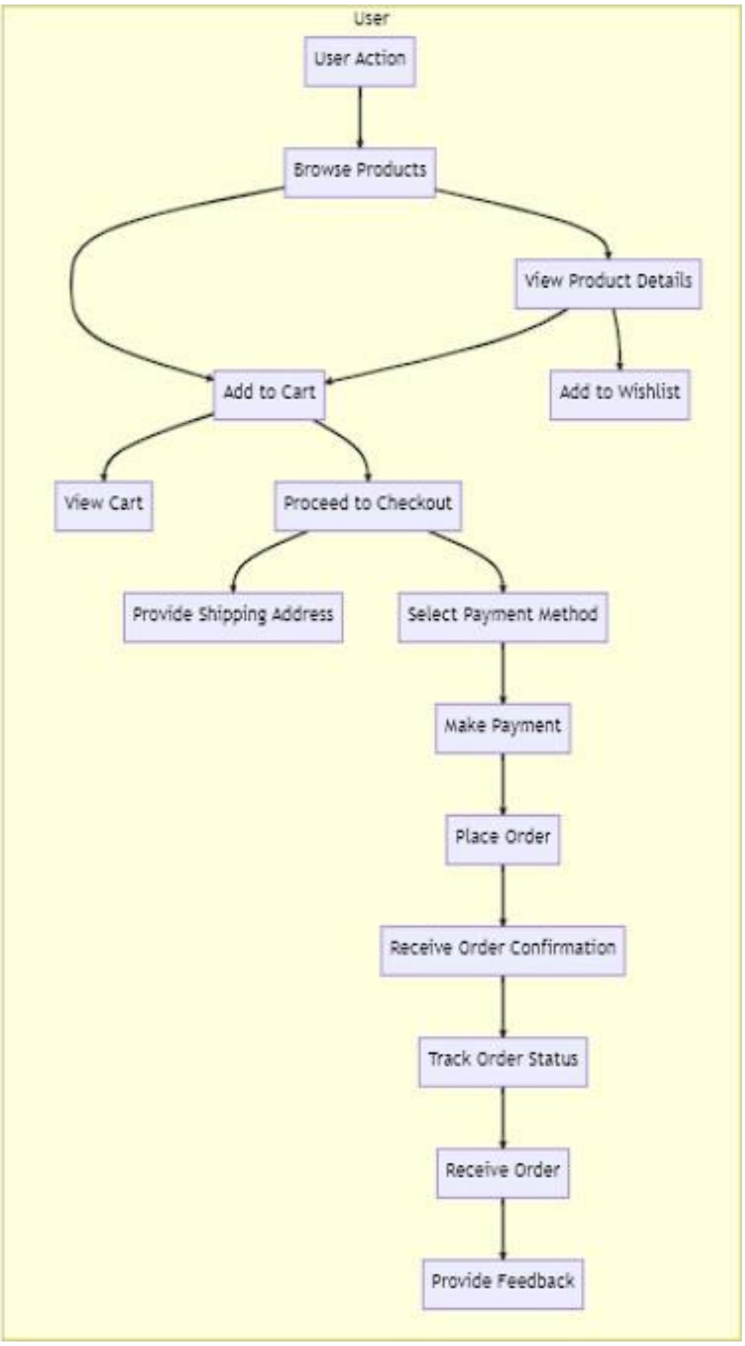
- Frontend npm Packages
- Axios.
- React-Router –dom.
- Bootstrap.
- React-Bootstrap.
- Backend npm Packages
- Express.
- Mongoose.

Role Based Access

Admin:



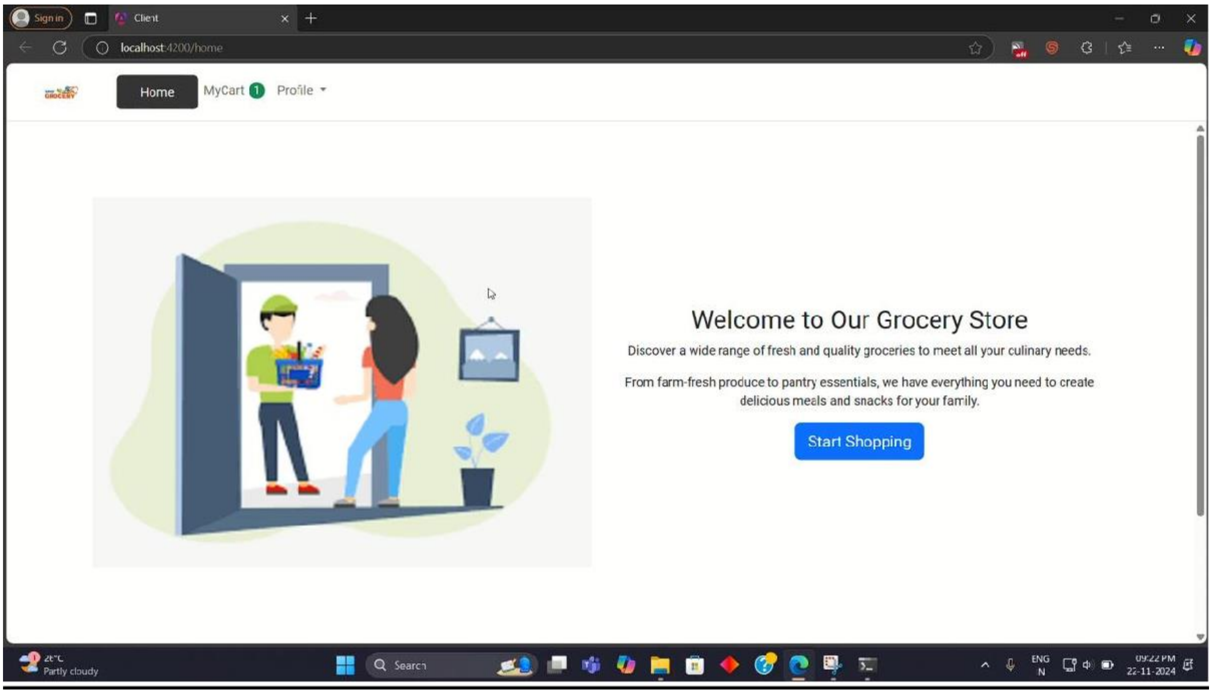
User:


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 Status
Receive Order
Provide Feedback

Implementation:

Frontend:

Client Home page:

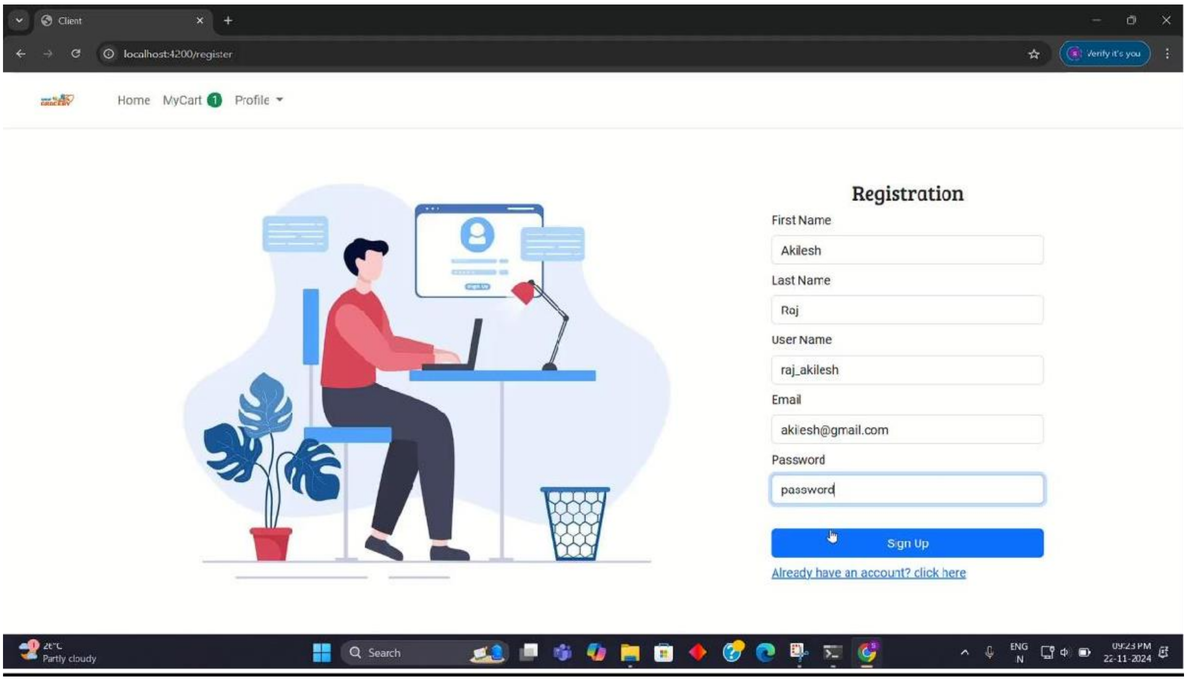


Welcome to Our Grocery Store

Discover a wide range of fresh and quality groceries to meet all your culinary needs.

From farm-fresh produce to pantry essentials, we have everything you need to create delicious meals and snacks for your family.

Sign up page



Registration

First Name: Akilesh

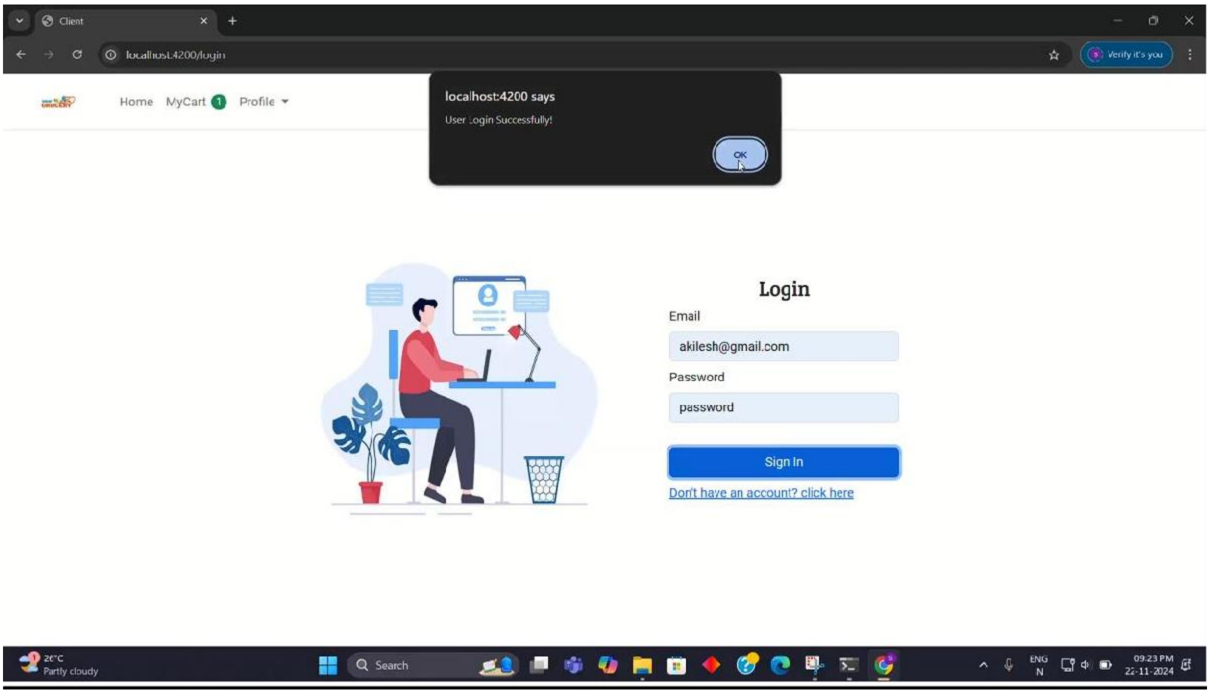
Last Name: Raj

User Name: raj_akilesh

Email: akilesh@gmail.com

Password: password

Login page:



localhost:4200 says

User Login Successfully!

OK

Login

Email

akilesh@gmail.com

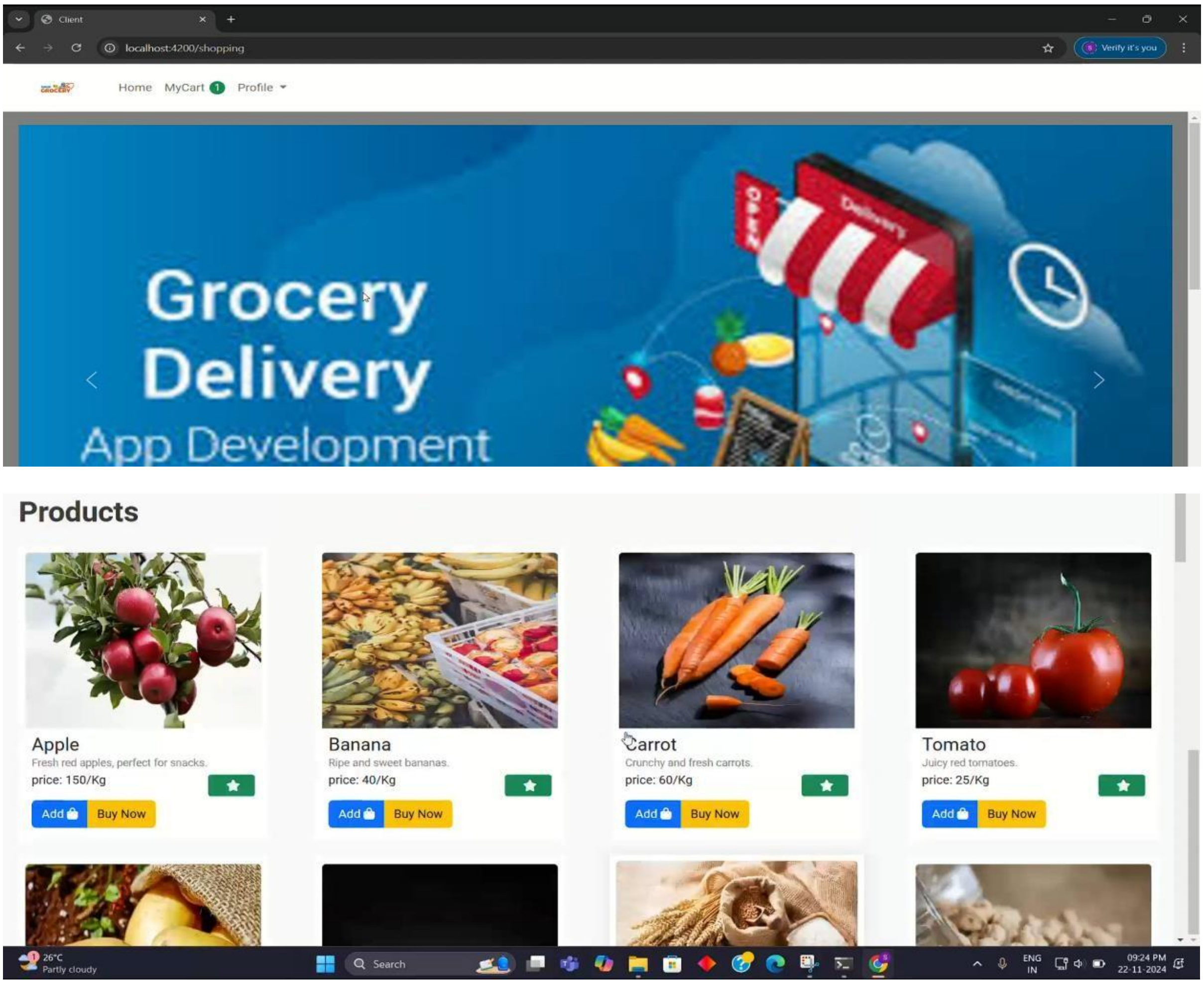
Password

password

Sign In

Don't have an account? click here

Home page:



Products

Apple

Fresh red apples, perfect for snacks.

price: 150/Kg

Add Buy Now

Banana

Ripe and sweet bananas.

price: 40/Kg

Add Buy Now

Carrot

Crunchy and fresh carrots.

price: 60/Kg

Add Buy Now

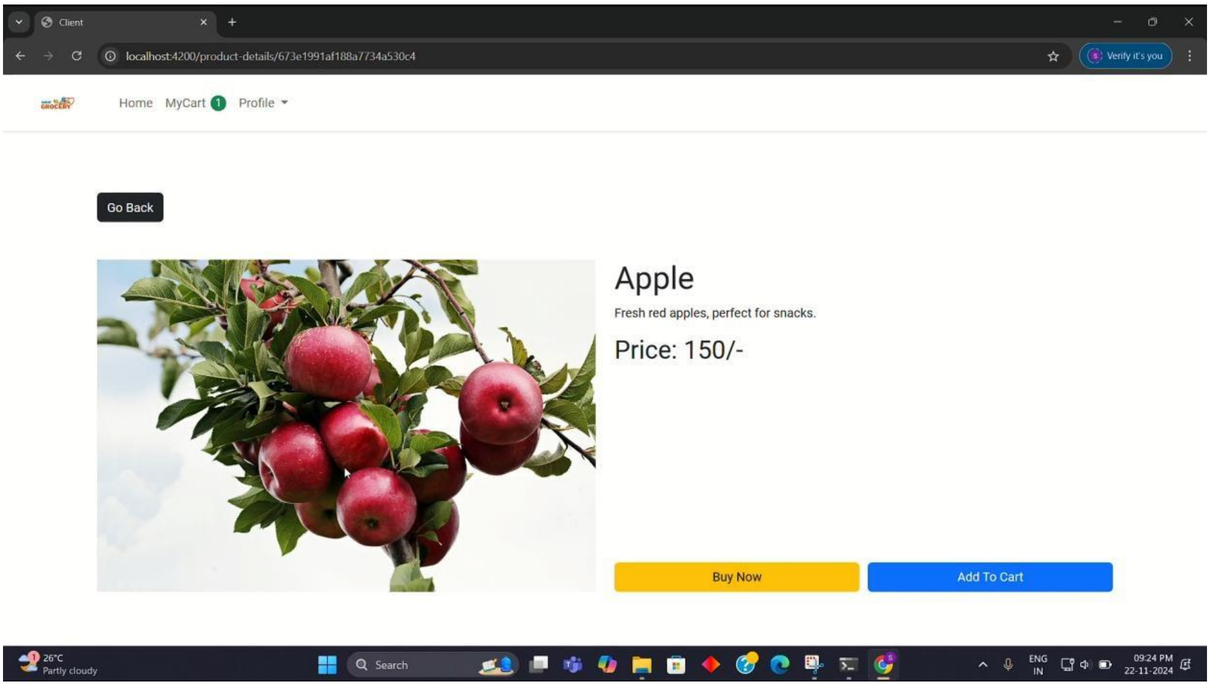
Tomato

Juicy red tomatoes.

price: 25/Kg

Add Buy Now

Add chat:

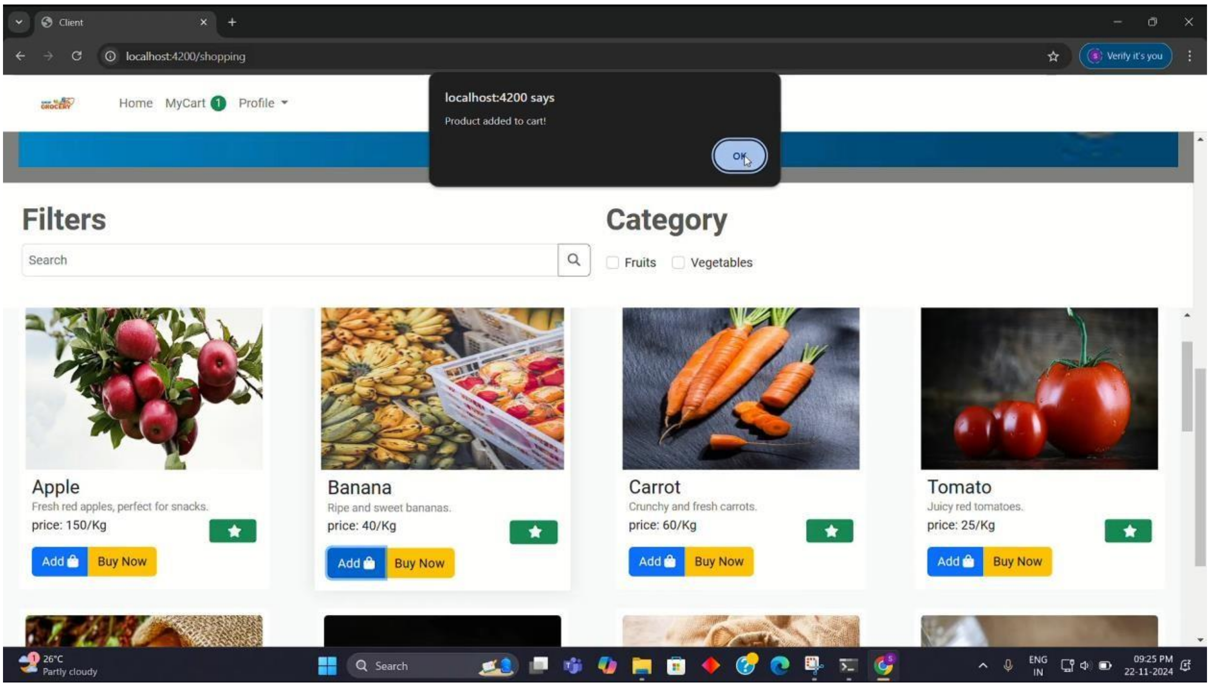


localhost:4200/product-details/673e1991af188a7734a530c4

Apple

Fresh red apples, perfect for snacks.

Price: 150/-



localhost:4200/shopping

localhost:4200 says

Product added to cart!

Filters

Category

Apple

Fresh red apples, perfect for snacks.

price: 150/Kg

Banana

Ripe and sweet bananas.

price: 40/Kg

Carrot

Crunchy and fresh carrots.

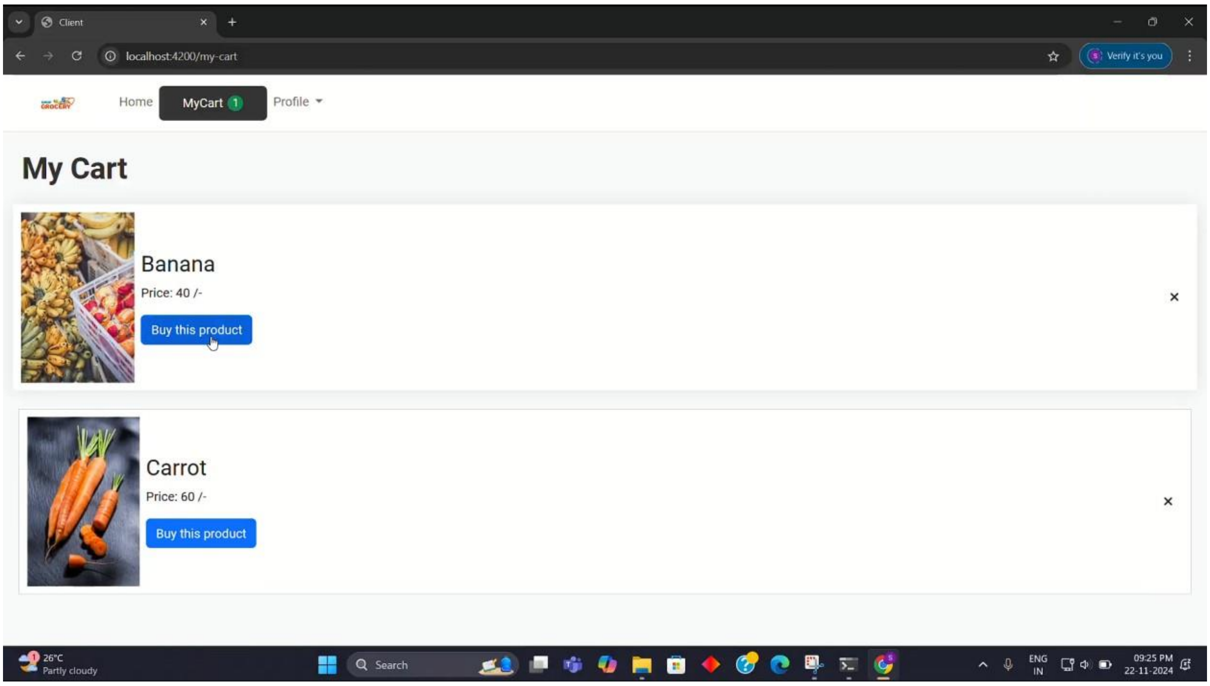
price: 60/Kg

Tomato

Juicy red tomatoes.

price: 25/Kg

Buy the Product:



My Cart

Banana

Price: 40 /-

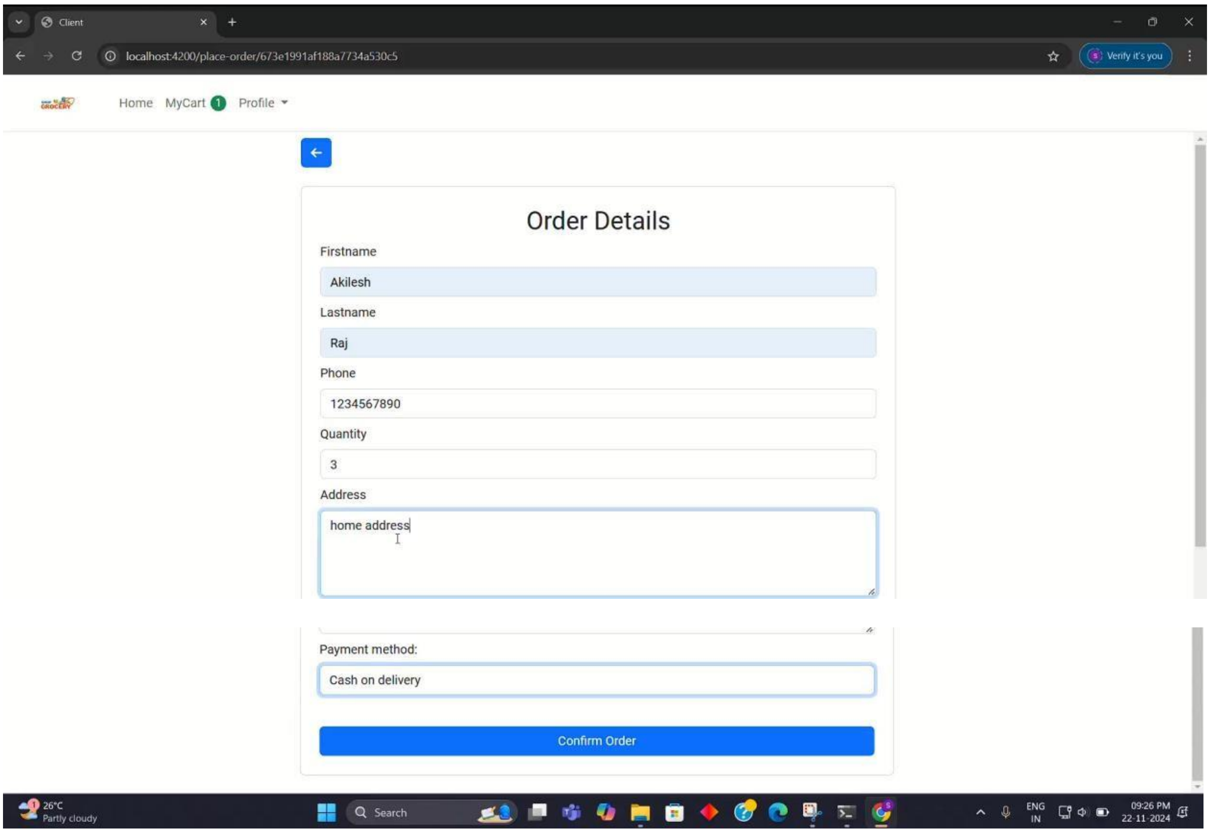
Buy this product

Carrot

Price: 60 /-

Buy this product

Order details



Order Details

Firstname: Akilesh

Lastname: Raj

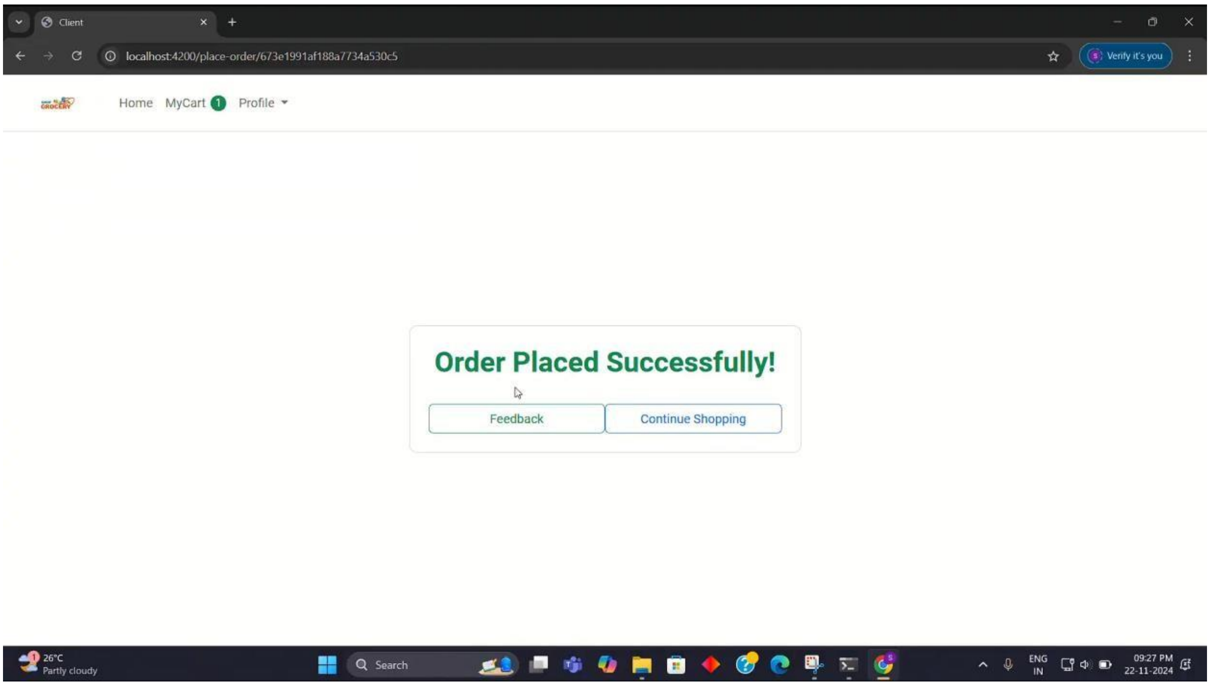
Phone: 1234567890

Quantity: 3

Address: home address

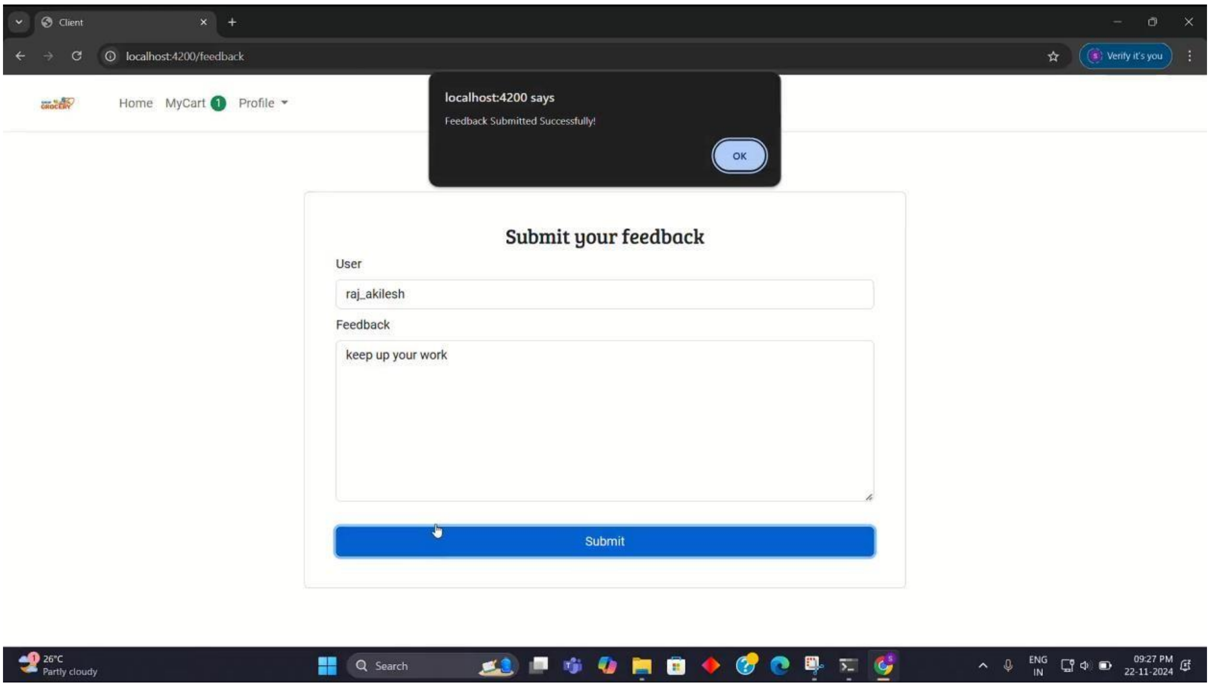
Payment method: Cash on delivery

Confirm Order



Order Placed Successfully!

Feedback:



localhost:4200 says

Feedback Submitted Successfully!

Submit your feedback

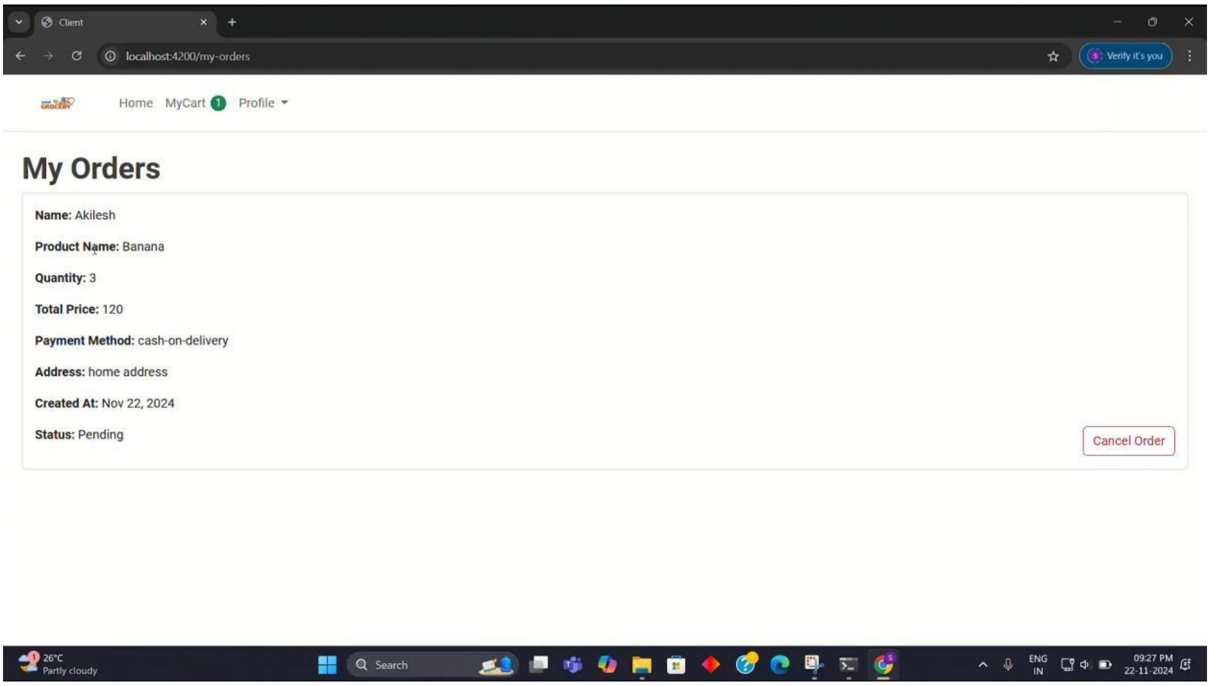
User

raj_akilesh

Feedback

keep up your work

Order list:



My Orders

Name: Akilesh

Product Name: Banana

Quantity: 3

Total Price: 120

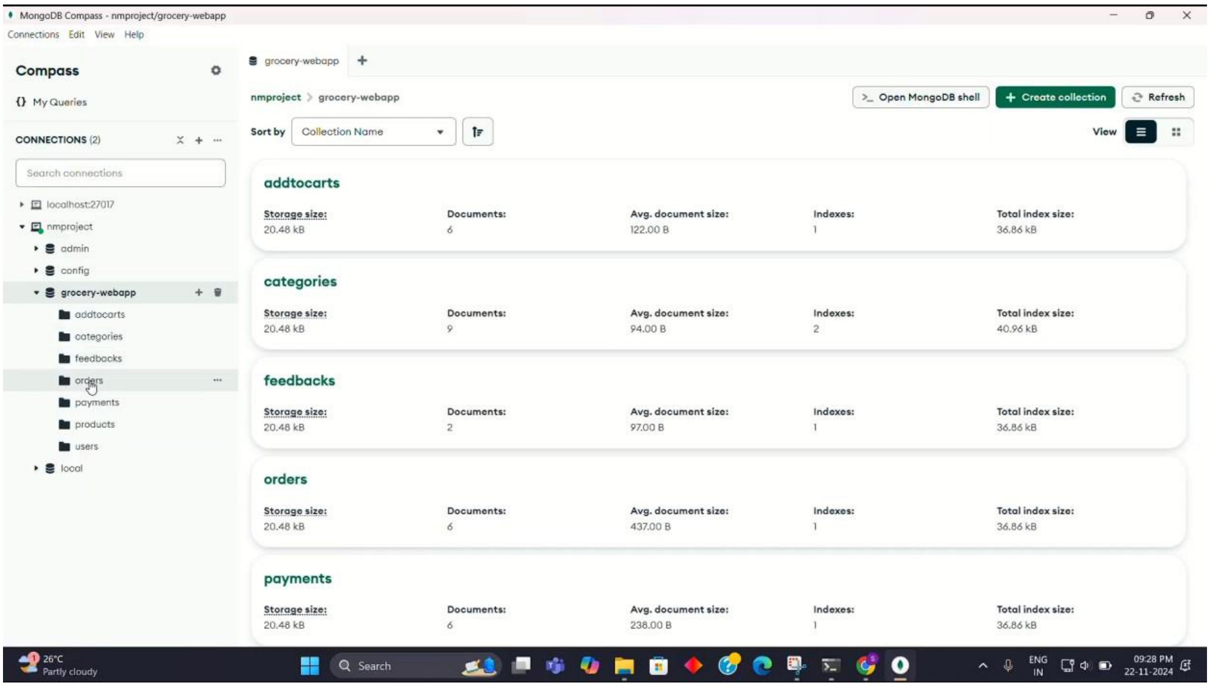
Payment Method: cash-on-delivery

Address: home address

Created At: Nov 22, 2024

Status: Pending

Backend:



addtocarts

Storage size:	Documents:	Avg. document size:	Indexes:	Total index size:
20.48 kB	6	122.00 B	1	36.86 kB

categories

Storage size:	Documents:	Avg. document size:	Indexes:	Total index size:
20.48 kB	9	94.00 B	2	40.96 kB

feedbacks

Storage size:	Documents:	Avg. document size:	Indexes:	Total index size:
20.48 kB	2	97.00 B	1	36.86 kB

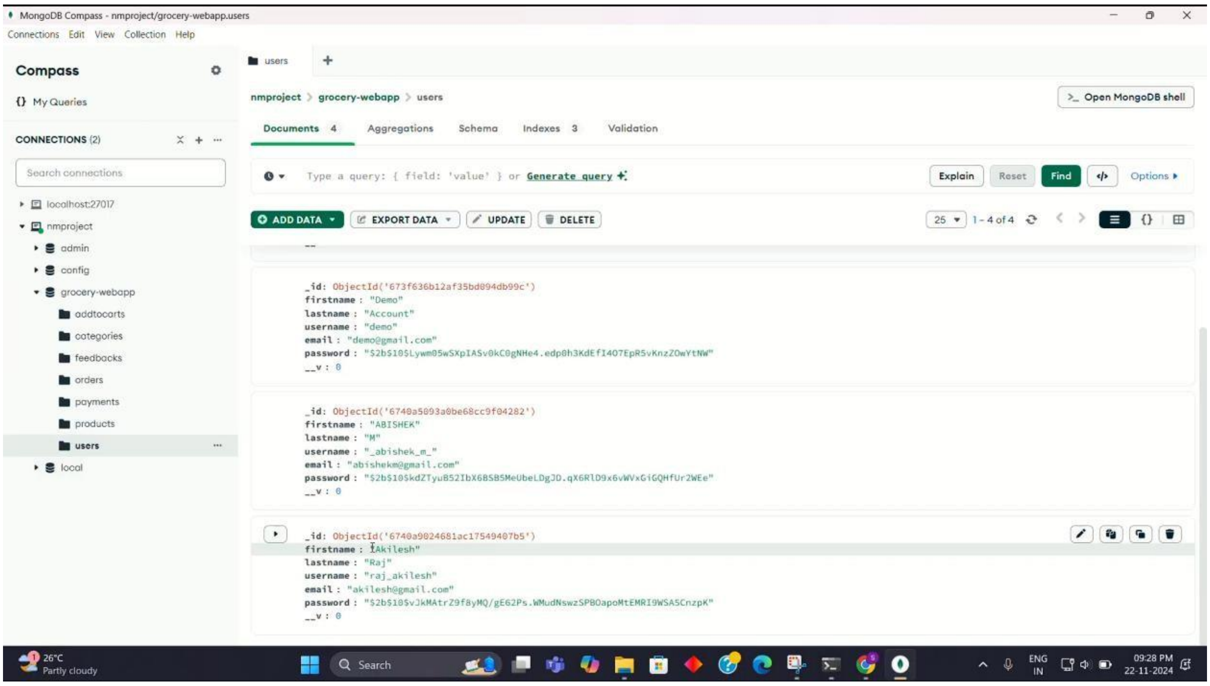
orders

Storage size:	Documents:	Avg. document size:	Indexes:	Total index size:
20.48 kB	6	437.00 B	1	36.86 kB

payments

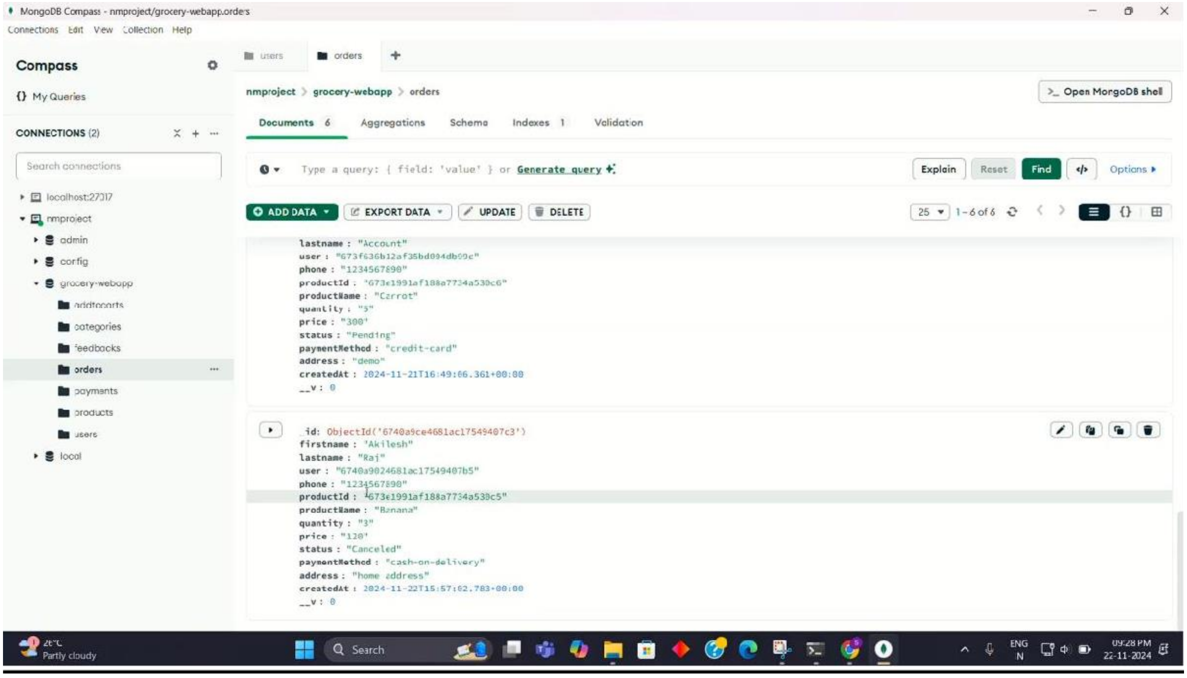
Storage size:	Documents:	Avg. document size:	Indexes:	Total index size:
20.48 kB	6	238.00 B	1	36.86 kB

User:



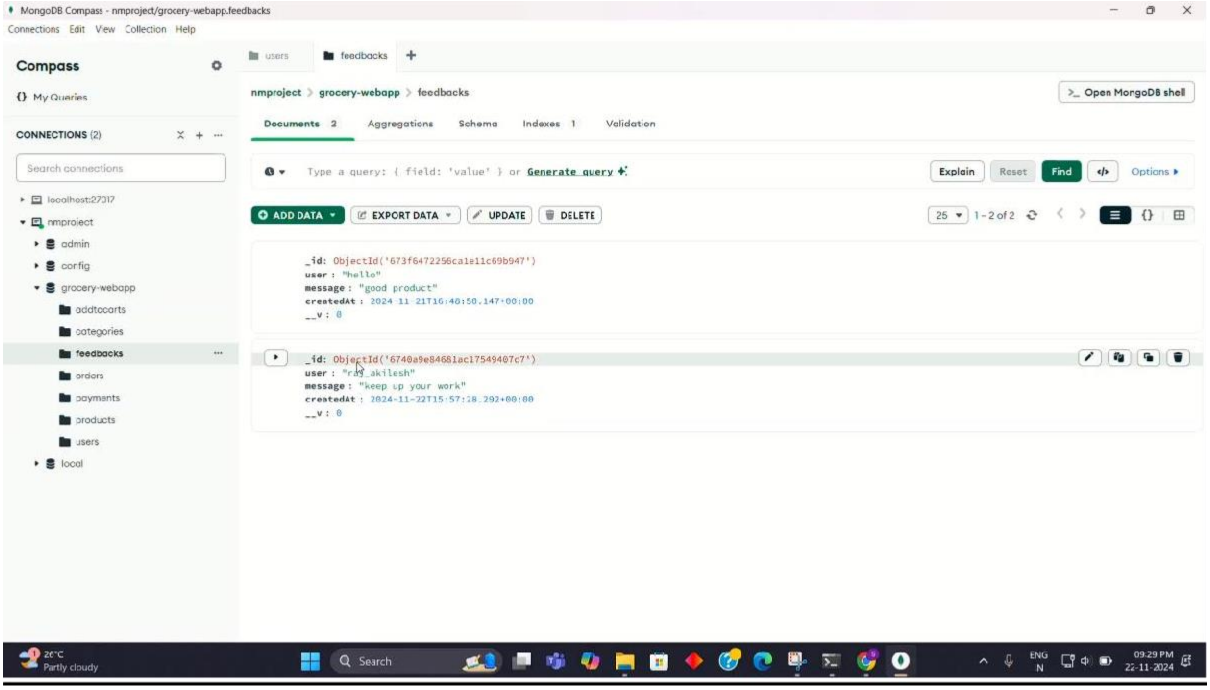
```
_id: ObjectId('673f636b12af35bd094db99c')
firstname : "Demo"
lastname : "Account"
username : "demo"
email : "demo@gmail.com"
password : "$2b$10$Lywm05wSXpIASv0kC0gNHe4.edp0h3KdEfI407EpR5vKnzZOwYtNW"
__v : 0

_id: ObjectId('6740a5093a0be68cc9f04282')
firstname : "ABISHEK"
lastname : "M"
username : "_abishek_m_"
email : "abishekm@gmail.com"
password : "$2b$10$kdZTyuB52IbX6BSB5MeUbeLDgJD.qX6RlD9x6vWVxGiGQHfUr2WEe"
__v : 0

_id: ObjectId('6740a9024681ac17549407b5')
firstname : "Akilesh"
lastname : "Raj"
username : "raj_akilesh"
email : "akilesh@gmail.com"
password : "$2b$10$vJkMAtrZ9f8yMQ/gE62Ps.WMudNswzSPBOapoMtEMRI9WSA5CnzpK"
__v : 0
```

Orders:



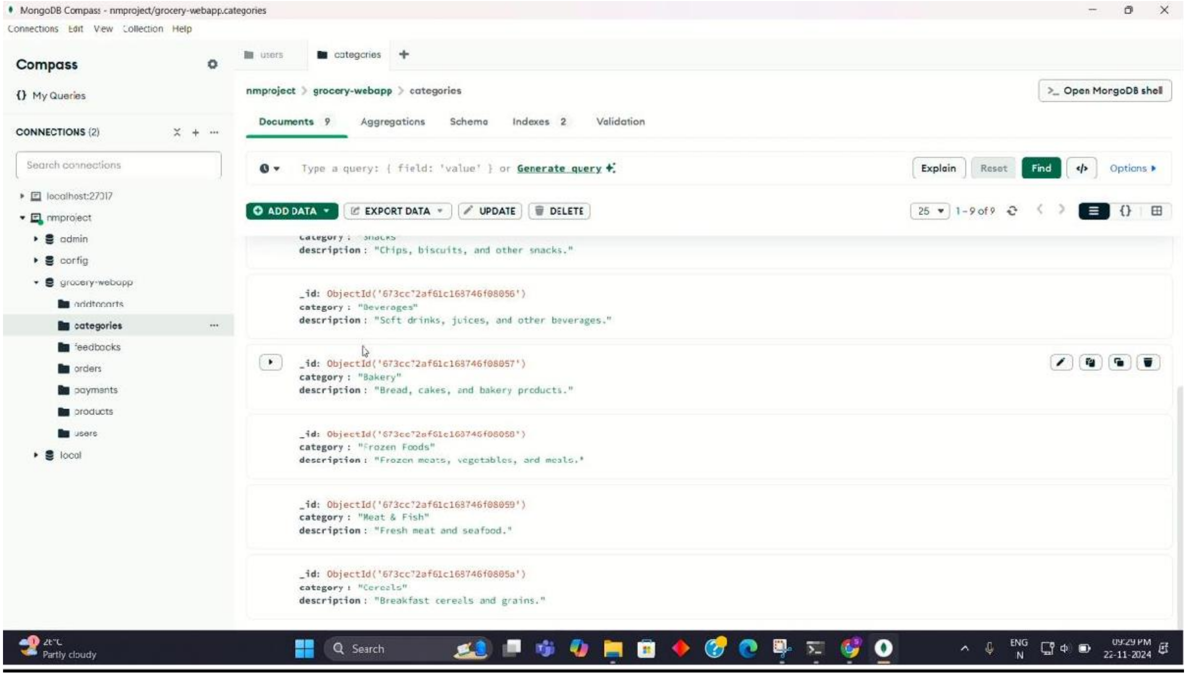
```
lastname : "Account"
user : "673f636b12af35bd094db99c"
phone : "1234567890"
productId : "673e1991af188a7734a530c6"
productName : "Carrot"
quantity : "5"
price : "300"
status : "Pending"
paymentMethod : "credit-card"
address : "demo"
createdAt : 2024-11-21T16:49:06.361+00:00
__v : 0

_id: ObjectId('6740a9ce4681ac17549407c3')
firstname : "Akilesh"
lastname : "Raj"
user : "6740a9024681ac17549407b5"
phone : "1234567890"
productId : "673e1991af188a7734a530c5"
productName : "Banana"
quantity : "3"
price : "120"
status : "Canceled"
paymentMethod : "cash-on-delivery"
address : "home address"
createdAt : 2024-11-22T15:57:02.783+00:00
__v : 0
```

Feedback:



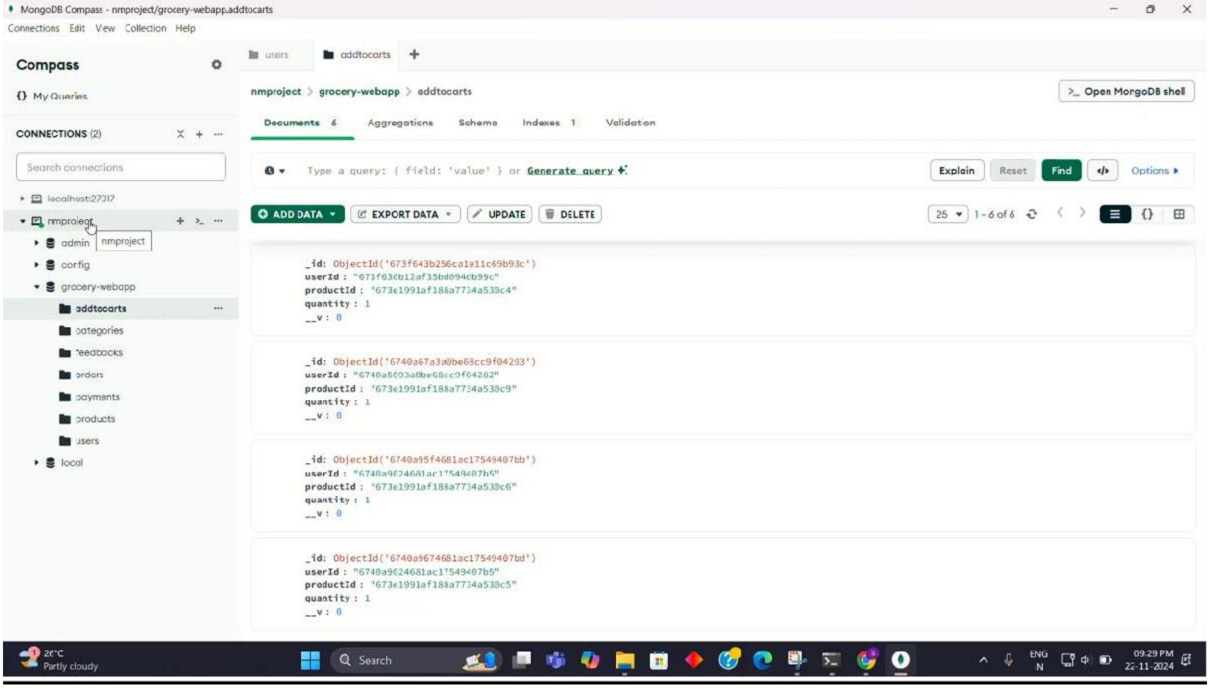
```
_id: ObjectId('673f6472256ca1e11c69b947')
user : "hello"
message : "good product"
createdAt : 2024-11-21T16:40:50.147+00:00
__v : 0

_id: ObjectId('6740a9e84681ac17549407c7')
user : "raj_akilesh"
message : "keep up your work"
createdAt : 2024-11-22T15:57:18.292+00:00
__v : 0
```

Categories:



```
category : "Snacks"
description : "Chips, biscuits, and other snacks."

_id: ObjectId('673cc72af61c163746f08056')
category : "Beverages"
description : "Soft drinks, juices, and other beverages."

_id: ObjectId('673cc72af61c163746f08057')
category : "Bakery"
description : "Bread, cakes, and bakery products."

_id: ObjectId('673cc72af61c163746f08058')
category : "Frozen Foods"
description : "Frozen meats, vegetables, and meals."

_id: ObjectId('673cc72af61c163746f08059')
category : "Meat & Fish"
description : "Fresh meat and seafood."

_id: ObjectId('673cc72af61c163746f0805a')
category : "Cereals"
description : "Breakfast cereals and grains."
```

Add chat:



```
_id: ObjectId('673f643b256ca1e11c69b93c')
userId : "673f630b12af35bd094cb99c"
productId : '673e1991af188a7734a530c4"
quantity : 1
__v : 0

_id: ObjectId('6740a67a3a0be68cc9f04293')
userId : "6740a5f03a0be68cc9f04282"
productId : '673e1991af188a7734a530c9"
quantity : 1
__v : 0

_id: ObjectId('6740a95f4681ac17549407bb')
userId : "6740a9f24681ac17549407b5"
productId : '673e1991af188a7734a530c6"
quantity : 1
__v : 0

_id: ObjectId('6740a9674681ac17549407bd')
userId : "6740a9f24681ac17549407b5"
productId : '673e1991af188a7734a530c5"
quantity : 1
__v : 0
```

Conclusion:

The **Grocery Webapp** project successfully demonstrates the development of a full-stack web application using the MERN stack to deliver a responsive and feature-rich online grocery shopping experience. The project showcases the seamless integration of front-end and back-end technologies to create an intuitive and user-friendly interface, secure user authentication, and a robust backend for efficient management of product inventory, customer data, and order processing. By emphasizing modern web development practices, this project offers a comprehensive platform that can be easily scaled and enhanced with additional features, such as personalized recommendations, real-time order tracking, and advanced search functionalities. The Grocery Webapp provides a strong foundation for an online grocery store, ensuring a smooth and reliable shopping experience for customers and a streamlined management system for administrators.