

# Grocery Webapp –Detailed Project Report

## 1.Introduction:

**Project Title:** Grocery Webapp : Simplifying Grocery Shopping

**Team Members:**

- Akshay G - Project Lead , Backend Developer
- Ashwath D - Frontend Developer
- Balaji G - Backend Developer
- Baskar M - UI/UX Developer
- Deepak Raj B - Frontend Developer & Database Engineer

## 2.Project Overview:

**Purpose:**

To create an intuitive web application that allows users to browse, search, and purchase groceries online, making grocery shopping efficient and user-friendly.

**Features**

- : • User authentication and profile management.
- Real-time product search and filtering.
  - Cart management with seamless checkout.
  - Admin dashboard for managing inventory.

## 3. Architecture:

**Frontend:**

The frontend is built using React with component-based architecture, styled using TailwindCSS for modern and responsive design.

**Backend:**

Node.js and Express.js power the backend, managing API endpoints and handling requests

**Database:**

MongoDB serves as the database, with collections for users, products, orders, and categories

## 4. Setup Instructions

### Prerequisites:

- Node.js (v16+)
- MongoDB (local or cloud instance)
- Git

## 5.Installation:

### A. Clone the repository:

```
git clone  
https://github.com/your-repo/groceryweb.git
```

### B. Navigate to directories and install dependencies:

```
cd client  
npm install  
cd ../server  
npm install
```

### C. Set up environment variables:

- Create .env file in the server directory.
- Add variables like DB\_URI, JWT\_SECRET, and PORT.

## 5. Folder Structure

### Client:

- src/components/ - React components.
- src/pages/ - Page-level components.

- src/services/ - API interaction logic.

### **Server:**

- routes/ - API routes.
- controllers/ - Business logic.
- models/ - Mongoose schemas.

## **6. Running the Application:**

### **Frontend:**

```
cd client  
npm start
```

### **Backend**

```
: cd server  
npm start
```

## **7. API Documentation**

- GET /api/products: Fetch all products.
- POST /api/auth/login: User login.
- POST /api/orders: Place an order

### **Example:**

Request:

POST /api/auth/login

```
{  
  "email": "user@example.com",  
  "password": "password123"  
}
```

### **Response:**

Json

```
{
```

```
"token": "jwt-token",  
"user": { "name": "John Doe" }  
}
```

## 8.Authentication:

- JWT-based authentication is implemented.
- Tokens are issued at login and verified for secured endpoints.
- Middleware ensures only authorized users access restricted resources.

## 9.User Interface:

The user interface includes:

- A home page showcasing featured products.
- A responsive product search and filter page.
- A secure checkout flow

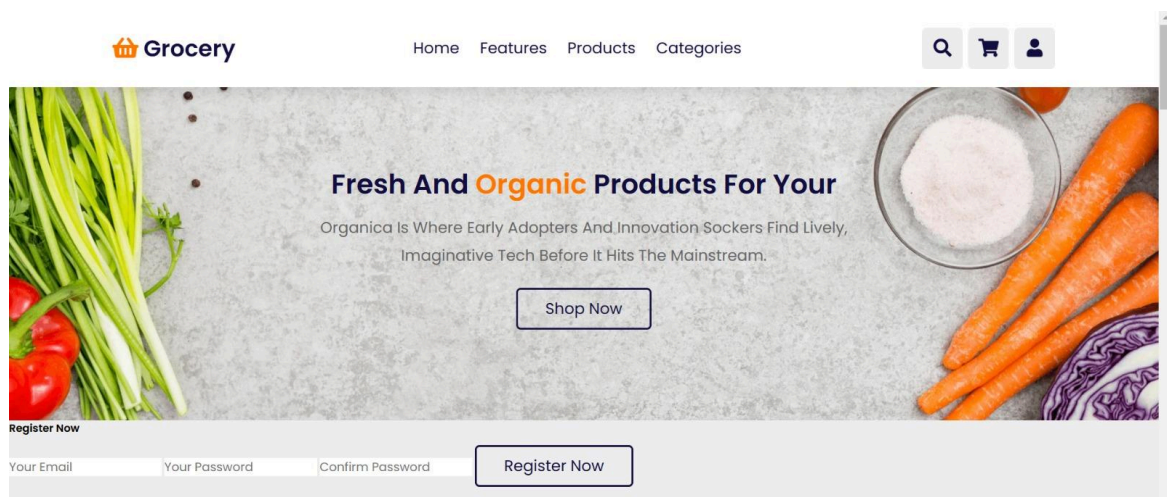
## 10.Testing:

Tools Used: Jest and Cypress.


- Unit tests for critical functions.
- End-to-end tests for checkout and user registration flows




## 11.Screenshots or Demo:

### Home page




## Features

HomeFeaturesProductsCategories




### Our Features



#### Fresh And Organic

Fresh Vegetables And Fruits In Cheap Price.


[Read More](#)



#### Free Delivery

We Always Do Fast Delivery On Our Customers.

[Read More](#)







#### Easy Payments

It Is Very Easy To Pay On Our Website, You Can Pay Easily.


[Read More](#)

## Products

HomeFeaturesProductsCategories




### Our Products



#### Fresh Orange

\$4.99/- - 10.99/-


★★★★☆



#### Fresh Onion

\$4.99/- - 10.99/-


★★★★☆







#### Fresh Meat

\$4.99/- - 10.99/-

★★★★☆

HomeFeaturesProductsCategories






#### Green Lemon

\$4.99/- - 10.99/-

★★★★☆

[Add To Cart](#)




#### Fresh Potato

\$4.99/- - 10.99/-

★★★★☆

[Add To Cart](#)



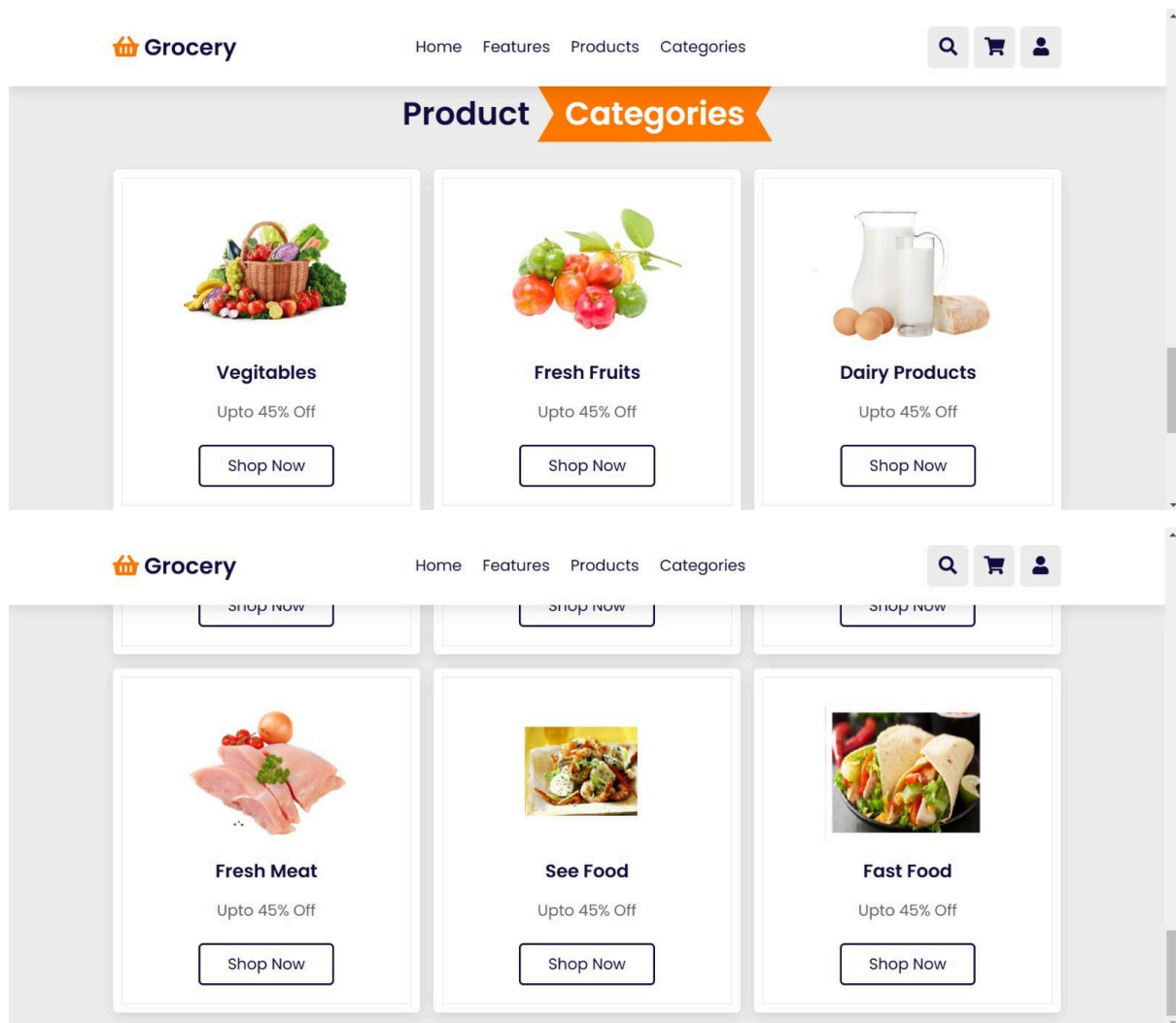
#### Fresh Avocado

\$4.99/- - 10.99/-

★★★★☆

[Add To Cart](#)

# Category



**Demo Video** Link: <https://github.com/BeastWagon/Grocery-Webapp>