

Full Stack Development with MERN

Project Documentation

1. Introduction

- Project Title: ShopSmart: Your Digital Grocery Store Experience
- Team Members: Shaik Afreen - Entire project develop

2. Project Overview

• Purpose: To provide a seamless and secure online grocery shopping experience for users, while empowering sellers and administrators with robust management tools.

• Features:

- - User-friendly registration and login system
- - Product browsing by category and keyword search
- - Shopping cart functionality
- - Secure checkout and payment integration
- - Order tracking and history for customers
- - Seller dashboard for product and inventory management
- - Admin panel for user, order, and inquiry management
- - Security and data privacy measures

3. Architecture

• Frontend: Built using React, employing component-based architecture and React Router for navigation.

• Backend: Developed using Node.js and Express.js to handle API requests and business logic.

• Database: MongoDB is used for storing user data, product listings, order histories, etc.

4. Setup Instructions

• Prerequisites: Node.js, npm, MongoDB

• Installation:

1. Clone the repository.
2. Run `npm install` in both client and server directories.
3. Set up environment variables (.env files).
4. Start MongoDB locally or connect to a remote cluster.

5. Folder Structure

- Client: Contains all React components, routes, and assets.
- Server: Contains Express.js routes, models, and controller logic.

6. Running the Application

- Frontend: Run `npm start` in the client directory.
- Backend: Run `npm start` in the server directory.

7. API Documentation

- Include endpoints for authentication, product management, cart operations, and order processing. Include method type (GET/POST/etc.), parameters, and response examples.

8. Authentication

- JWT-based authentication is implemented for users, sellers, and admins. Secure tokens are used to maintain sessions and verify identities.

9. User Interface

- Screenshots of product browsing, cart view, checkout, seller dashboard, and admin panel should be included here.

10. Testing

- Manual and automated testing done using unit tests, integration tests, and UAT. Tools used include Jest and Postman.

11. Screenshots or Demo

- [Insert screenshots or provide a link to the live demo of the application]

12. Known Issues

- Payment gateway occasionally fails on Visa cards.
- Cart not updating in real time under certain conditions.

13. Future Enhancements

- - Mobile application version of ShopSmart
- - AI-based product recommendation system
- - Multi-language support
- - Advanced analytics dashboard for sellers