⛯ShopSmart– Digital Grocery Store

🗎Final Project Report

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1. INTRODUCTION

1.1 Project Overview

ShopSmart is a full-stack digital grocery shopping platform that allows users to buy groceries online and enables admins to manage products and orders. It provides features like cart, wishlist, order tracking, and admin dashboard, making it a complete e-commerce solution tailored for grocery businesses.

1.2 Purpose

The purpose of the ShopSmart project is to simplify grocery shopping for customers and streamline inventory and order management for store owners through a responsive web application.

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2. IDEATION PHASE

2.1 Problem Statement

Most local grocery stores lack an online presence and a proper backend system to manage inventory and customer orders.This results in inconvenience for customers and inefficiencies for store owners.

2.2 Empathy Map Canvas

Users: Daily grocery
Needs: Time-saving,easy access to groceries
Says:"I want to quickly find and groceries."
Thinks: "Is the item in stock?"
Feels: Frustrated when items are unavailable or checkout is slow
Does: Shops regularly but struggles with availabilityand travel

2.3 Brainstorming

- Online store with simple UI
- Secure user login
- Cart and wishlist
- Admin panel for product/order control
- Real-time updates
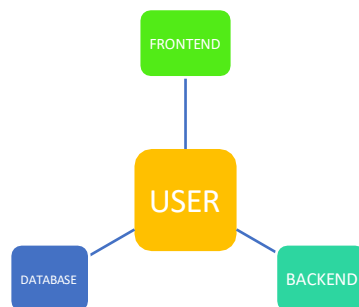
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3. REQUIREMENT ANALYSIS

3.1 Customer Journey Map

1. Visit website
2. Register/Login
3. Browse items
4. Add to cart or wishlist
5. Placeorder
6. View order status
7. Admin processes the order
8. Order delivered

3.2 Solution Requirement

- Secure user authentication
- Product catalog
- Shopping cart
- Order placement and history
- Admin panel with CRUD functionalities

3.3 DataFlow Diagram

Shows flow between User→Frontend→Backend→Database

3.4 Technology Stack

- **Frontend:**HTML,CSS,JavaScript,Bootstrap
- **Backend:**Node.js,Express.js
- **Database:**MongoDBAtlas
- **ToolsUsed:**Postman,Git,GitHub,Render(fordeployment)

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4. PROJECT DESIGN

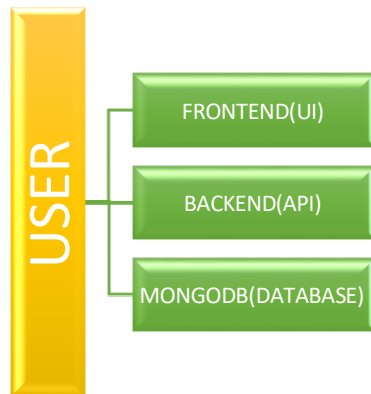### 4.1 Problem Solution Fit

The platform addresses user needs for easy shopping and store owner needs for centralized control of inventory and orders.

4.2 Proposed Solution

A responsive webapplication with user and admin modules.Features include product search, cart, wishlist, order tracking, admin product management, and order updates.

4.3 Solution Architecture

Users→ Frontend(UI)→Backend(API)→ MongoDB(Database)

5. PROJECT PLANNING & SCHEDULING

5.1 Project Planning

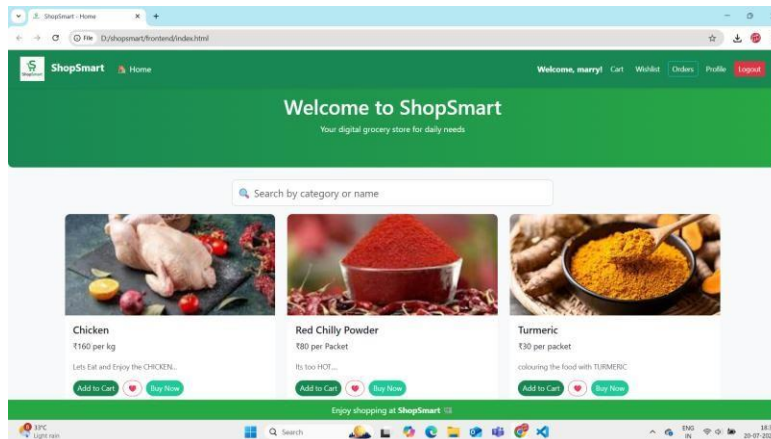| Week	Task
Week1	Requirement gathering,planning
Week2	Frontend design
Week3	Backend APIs
Week4	User authentication
Week5	Admin panel
Week6	Testing and bug fixes
Week7	Final integration
Week8	Deployment &documentation

6. FUNCTIONAL AND PERFORMANCE TESTING

6.1 PerformanceTesting

- Tested all routes using Postman
- Load testing performed for productlist in and order placement
- Verified quick response times on both frontend and backend
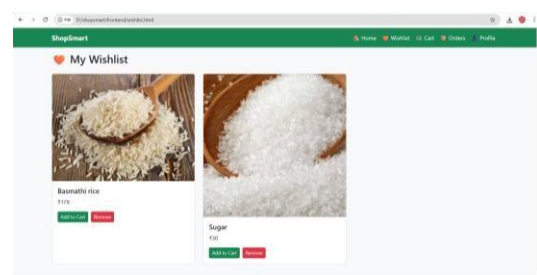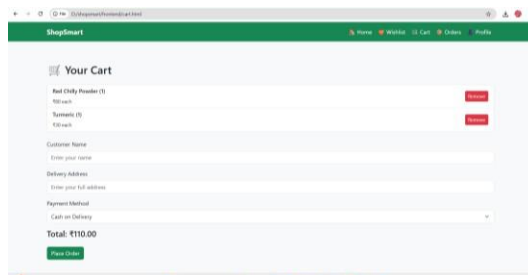- UI tested across mobile, tablet,and desktop screens
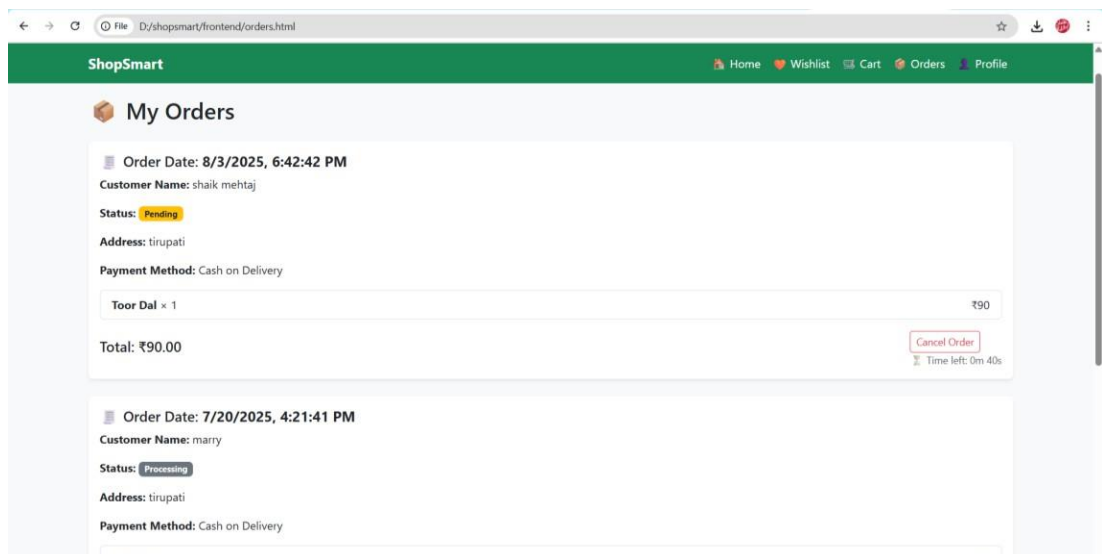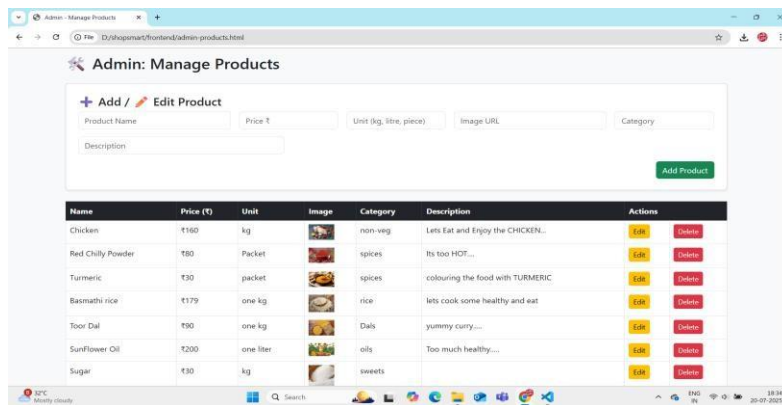
7. RESULTS

7.1 Output Screenshots

- Homepage

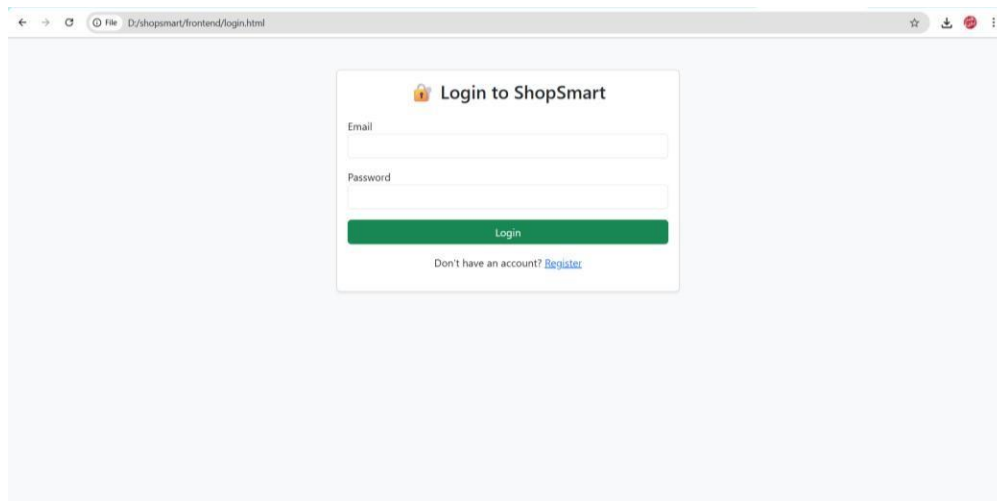- Cart and wishlist

- Order history

- Admin dashboard(add/edit/deleteproduct)

- Login and registration pages

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8. ADVANTAGES & DISADVANTAGES

✅ Advantages:

- User-friendlyUI/UX
- Easyto manage from the admin side
- Real-time order tracking
- Scalable and customizable

✖ Disadvantages:

- No integrated payment gateway
- No delivery tracking system
- No mobileapp version

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9. CONCLUSION

The ShopSmart platform successfully meets the needs of a basic online grocery store. It simplifies the buying process for users and gives complete product/order control to admins.It lays the foundation for future expansion like mobile apps and AI-based features.

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10. FUTURE SCOPE

- Add Razor payor Stripe payment integration
- Include real-time delivery tracking with Google Maps
- Launch Android/iOS mobileapps
- Add feedback,rating,and review system
- AI-based product recommendations

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11. APPENDIX

👓Source Code

https://github.com/ShaikMehtaj/shopsmart-your-digital-grocery-store-experience/tree/main

🎥 GitHub & Project Demo Link

Video & Code explanation demo links:

https://drive.google.com/file/d/1npDzANr0_yQ9ahc1rsONG8BpFcjdmzxk/view?usp=drive_link

https://drive.google.com/file/d/1N9yelvnp3G1s24SmvM_AQGJXlIwvMLuv/view?usp=drive_link