**Shopsmart :Your Digital Grocery StoreExperience**

# INTRODUCTION

## Project Overview

ShopSmart is a MERN-stack-based online grocery shopping system that allows users to browse grocery items, filter by category, place orders, and view order history, all through a user-friendly interface.

## Purpose

To provide an efficient, secure, and visually appealing online platform for customers to explore and order grocery items with ease.

# IDEATION PHASE

* 1. Problem Statement

Existing online grocery platforms lack proper category filtering, order history visibility, and often suffer from poor user interface.

## Empathy Map Canvas

* + - User Needs: Easy grocery browsing, clear filtering, seamless ordering
    - Pain Points: Complex UI, missing order tracking
    - Goals: Intuitive website with secure order placement and history tracking

## Brainstorming

The team discussed multiple approaches including different technology stacks, UI designs, and feature priorities, finalizing MERN stack with JWT-based authentication for optimal performance.

# REQUIREMENT ANALYSIS

## Customer Journey Map

1. User registers/login
2. Browses available grocery items
3. Filters by category
4. Places an order
5. Views order history

## Solution Requirements

* + - User authentication
    - Grocery listing with images, prices, brands
    - Category filtering
    - Order placement and order history
    - Responsive UI with clear styling

## Data Flow Diagram

Data Flow Diagram will be added here.

## Technology Stack

* + - Frontend: React JS
    - Backend: Node.js + Express
    - Database: MongoDB Atlas
    - Authentication: JWT
    - Styling: CSS

# PROJECT DESIGN

## Problem Solution Fit

ShopSmart offers a secure, feature-rich, and easy-to-use platform that addresses key gaps in online grocery shopping.

## Proposed Solution

A MERN stack application with category filtering, order history, secure login, and clean UI.

## Solution Architecture

Solution Architecture Diagram will be added here.

# PROJECT PLANNING & SCHEDULING

* 1. Project Planning

Two Sprints: Backend & Database (Sprint 1), Frontend & Styling (Sprint 2) Velocity: 15 Story Points per Sprint

# FUNCTIONAL AND PERFORMANCE TESTING

## Performance Testing

* + - Fast API response time
    - Secure authentication tested
    - Orders placed successfully
    - Filter functionality working

# RESULTS

## Output Screenshots

Screenshots of the grocery listings, filtering, order placement, and order history pages will be added here.

# ADVANTAGES & DISADVANTAGES

Advantages:

* Secure and efficient
* User-friendly interface
* Category filtering and order history
* Responsive design Disadvantages:
* Initial deployment only on localhost
* Future scaling required for large datasets

# CONCLUSION

ShopSmart successfully delivers a clean, functional, and secure online grocery shopping platform addressing common issues in existing systems.

# FUTURE SCOPE

* Deployment on cloud platforms
* Payment gateway integration
* Admin panel for managing grocery items
* Improved UI features

# APPENDIX

* Source Code: Provided
* Dataset Link: N/A (User-entered grocery data)