ShopSmart: Full Stack MERN Grocery Store Project

Project Overview

ShopSmart is a full stack MERN (MongoDB, Express.js, React, Node.js) grocery store web application. It allows users to browse products, manage a shopping cart, authenticate accounts, and perform checkout. The project demonstrates modern web architecture, REST APIs, and responsive UI design.

Technology Stack

1   MongoDB – Database for storing users, products, and orders
2   Express.js – Backend API framework
3   React – Frontend UI library
4   Node.js – Server runtime
5   JWT Authentication – Secure login system

Core Features

1   User registration and login
2   Product catalog display
3   Shopping cart management
4   Checkout simulation
5   Responsive mobile-friendly UI

Project Structure

1   frontend/ – React application
2   backend/ – Node + Express server
3   models/ – MongoDB schemas
4   routes/ – API endpoints
5   controllers/ – Business logic

Setup Steps

1   Install Node.js and MongoDB
2   Create backend server with Express

3   Connect MongoDB database

4   Build React frontend

5   Integrate APIs

6   Run backend and frontend servers

Learning Outcomes

1   Understanding full stack architecture

2   REST API development

3   Frontend-backend integration

4   Database design

5   Authentication workflow