

SYSTEM STUDY

The **Smart Grocery Shopping Platform** is an advanced system aimed at revolutionizing online grocery shopping. It leverages AI, machine learning, and dynamic pricing models to provide personalized and efficient shopping experiences while streamlining inventory and supplier management.

Objectives:

- Provide a user-friendly and interactive interface for grocery shopping.
- Integrate AI-driven recommendations, dynamic pricing, and meal planning.
- Enable voice-activated assistance for hands-free navigation.
- Ensure smooth communication among users, suppliers, and administrators.
- Optimize supply chain management through automated restocking and bulk order handling.

Scope:

- **User Management:** Secure user authentication, profile management, and personalized interactions.
- **Product Catalog:** Detailed listings with real-time price adjustments, dynamic descriptions, and bulk purchase options.
- **Shopping Cart:** Includes meal-planning integration and smart suggestions.
- **Payment System:** Supports multiple secure gateways and generates downloadable invoices.
- **Order Management:** Automated tracking, notifications, and live updates.
- **Admin Panel:**
 - Inventory monitoring and supplier integration.
 - Generating data-driven performance and sales reports.

- **Supplier Module:**
 - Product and inventory management.
 - Bulk order fulfillment and automated restocking alerts.

Existing System Overview:

- **Traditional Grocery Shopping:** Involves in-store visits, limited convenience, and minimal personalization.
- **Current Online Platforms:**
 - Existing systems like JioMart and Big Basket focus on basic e-commerce functionalities.
 - Limited implementation of AI-driven recommendations, meal planning, or automated supplier management.

Need for the New System:

- **Enhanced Efficiency:** Modernize online grocery shopping with advanced automation and personalization.
- **Improved Personalization:** Use AI to analyze user preferences, purchase history, and trends.
- **Streamlined Operations:** Introduce supplier integration, automated alerts, and predictive stock management.