GRAB & GO – Smart Supermarket Online Pre-Order & Pickup System

The **Smart Supermarket Online Pre-Order & Pickup System** is an efficient digital retail platform designed to simplify supermarket shopping by allowing customers to browse products online, place orders remotely, and collect them at a chosen time without waiting in billing queues. The system provides a seamless interface for product browsing, secure checkout, automated order processing, and real-time stock tracking, ensuring a hassle-free "Grab & Go" experience.

System Modules

1. **User Module** – Customer registration, login, product search, cart management, order placement, payment, and pickup scheduling.
2. **Admin Module** – Product category management, stock update, price control, offers, analytics, and system monitoring.
3. **Order Management Module** – Order verification, packing status, QR code generation, pickup confirmation, and order history tracking.
4. **Inventory & Stock Module** – Real-time stock detection, low-stock alerts, and automatic inventory updates to prevent conflicts.
5. **Invoice & Billing Module** – Secure payment processing, digital invoice generation, and transaction history.

Technologies Used

Front-End

- **HTML5**, **CSS3**, **JavaScript**

Back-End

- **MySQL** (database for user details, orders, and inventory)
- **JSON Web Tokens (JWT)** or session authentication (secure login)
- **QR Code Generator Libraries** for pickup verification

System Overview

Customers access the platform to register, explore supermarket products, select items, and schedule a pickup time based on store availability. Upon order confirmation, a secure QR code is generated for quick item verification during pickup. Administrators manage inventory, update product lists, and monitor daily orders using a centralized dashboard. Real-time stock monitoring reduces over-ordering and enhances resource management, while staff members receive organized packing lists to accelerate parcel preparation.

Conclusion

The **Smart Supermarket Online Pre-Order & Pickup System** significantly improves the retail shopping experience by reducing queue time, enabling faster service, and offering secure, automated, and user-friendly online ordering facilities. The modular architecture, real-

time inventory control, and use of modern web technologies make it scalable, maintainable, and suitable for supermarkets aiming to adopt digital transformation.

Imagine a Real Pickup Situation

✔ **Customer: Savio**

✔ **Order ID: 12345**

✔ **Items: Milk, Rice, Eggs**

✔ **Amount: ₹450**

Step 1: Create QR Code

When Savio orders, system creates a QR code **containing only the Order ID**:

```
12345
```

This QR code is sent to Savio.

Step 2: Savio Comes to Supermarket

He shows QR code on his phone.

Step 3: Staff Scans the QR

When the staff scans the QR:

👉 The system immediately shows:

- Order ID: **12345**
- Name: **Savio**
- Items: **Milk, Rice, Eggs**
- Amount: **₹450**
- Status: **Paid**

So staff **can see the exact order** on their computer/mobile.