Requirement Gathering

Date: 11-12-2025

Project Overview

GRAB & GO is an online supermarket pre-order and pickup management system designed to simplify retail shopping by enabling customers to browse products, place orders online, and collect them quickly at the store without waiting in billing queues.
The system integrates customer ordering, inventory management, staff packing workflow, order verification through QR code scanning, and administrative monitoring into a single digital platform.
Its objective is to ensure faster service delivery, accurate order handling, secure data transactions, and efficient supermarket operations.

System Scope

GRAB & GO is proposed as a full digital retail ordering and pickup solution suitable for small, medium, and large supermarkets.
The system covers end-to-end retail processes such as product browsing, cart management, online payments, pickup slot scheduling, order packing, stock monitoring, invoice generation, staff task handling, and admin reporting.

The system ensures:

1. Centralized order processing
2. Real-time stock synchronization
3. Quick customer pickup and verification
4. Secure digital billing

Target Audience

The system is designed for all stakeholders involved in supermarket operations:

1. **Customers**

2. **Packing Staff**
3. **Inventory Staff**
4. **Billing Staff**
5. **Pickup Counter Staff**
6. **Supermarket Administrators / Managers**

Each user interacts with system features according to their role and access level.

Modules

1. Customer Ordering Module

Includes customer registration, login, product browsing, search, cart management, order placement, payment, invoice generation, and pickup scheduling.
This module ensures a smooth and fast online shopping experience.

2. Order Processing & Pickup Module

Handles order verification, QR code generation, packing workflow, order status tracking, real-time updates, and pickup confirmation.
When a customer arrives, staff scan the QR code and immediately view order details to ensure quick handover.

3. Inventory & Stock Management Module

Manages stock updates, low-stock alerts, product quantity deduction after each order, category management, and prevention of over-ordering.
Supports real-time inventory accuracy for both customers and staff.

4. Billing & Invoice Module

Processes secure payments, updates financial transactions, generates digital invoices, and stores transaction history for customers and admins.

5. Admin & Analytics Module

Allows administrators to control product categories, pricing, offers, user accounts, order history, stock updates, departmental roles, and operational reports.
Includes dashboards for daily orders, sales, inventory levels, and peak pickup times.

User Roles

Customer

1. Register/login
2. Browse products
3. Add to cart, place order
4. Select pickup time
5. Secure payment
6. View digital invoice & QR code
7. Track order status
8. View order history

Packing Staff

1. View new orders
2. Pack items according to instructions
3. Update packing status
4. Mark order as ready for pickup

Pickup Counter Staff

1. Scan QR code
2. Verify customer identity
3. Confirm order delivery

Inventory Staff

1. Update stock quantities
2. Manage product listings
3. Receive low-stock alerts
4. Handle restocking

Billing Staff

1. View paid/unpaid orders
2. Generate payment confirmations
3. Resolve billing issues

Administrator

1. Manage all user roles
2. Add/edit/remove products & categories
3. Control pricing and offers
4. Monitor daily orders and sales
5. Handle system policies and data access
6. Generate operational reports

System Ownership

The GRAB & GO platform is owned by the developer who designs and deploys the system. Ownership includes UI/UX designs, database structures, order workflows, QR verification logic, and system architecture.
This ensures protection of intellectual property and integrity of supermarket operational data.

Industry / Domain

GRAB & GO belongs to the **Retail Management Systems (RMS)** and **E-commerce** domain, supporting digital transformation in supermarket operations.

Data Collection Contact

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Questionnaire for Data Collection

1. How are customer orders currently taken and managed in the supermarket?

Orders are usually taken directly at the billing counter. Customers pick items, place them on the billing desk, and staff manually scan and bill each item. There is no pre-order or scheduling system, causing delays and crowding during busy hours.

2. What difficulties occur during peak-time billing or customer rush?

During peak hours, long queues form because each customer must go through manual scanning and billing. Staff face pressure, billing mistakes increase, and customers experience long waiting times leading to dissatisfaction.

3. How do staff currently track product availability or low stock?

Staff generally check shelves manually or rely on periodic stock audits to identify low stock. There is no real-time system to monitor inventory, resulting in over-selling, stockouts, or delays in restocking.

4. How are order packing tasks assigned and monitored?

Packing staff receive orders verbally or through printed order lists. Monitoring progress becomes difficult because there is no automated tracking system. Staff must manually update the status, which can cause delays or miscommunication.

5. What challenges arise in verifying orders for pickup?

During pickup, verifying whether the correct customer is receiving the correct order is challenging, especially when multiple orders are queued. Manual verification increases the risk of handing over the wrong order.

6. What information must be shown to staff while handing over an order?

Staff need to see the customer's name, order number, purchased items list, payment confirmation, and pickup time. This ensures the correct order is identified and delivered accurately.

7. How are daily sales and order statistics currently generated?

Sales and order statistics are generally compiled manually using billing records at the end of the day. This takes time and may lead to errors, as staff must summarize items sold, total revenue, and order trends.

8. What issues occur while managing product prices, discounts, or offers?

Price changes or offers must be updated manually in the billing system or on display boards. This leads to inconsistencies, outdated information, and delays in communicating new offers to customers.

9. What type of customer order history or tracking is required?

A system is needed to show previous orders, billing history, invoice downloads, repeat orders, and pickup records. This helps both customers and staff track past purchases.

10. How can QR code-based pickup improve the accuracy of delivery?

QR codes allow staff to instantly retrieve order details by scanning. This eliminates manual searching, reduces errors, and ensures only the authenticated customer receives their

correct order.

11. What features would help staff speed up packing and order handling?

Real-time order notifications, automatic packing lists, status updates (packed/ready), priority tagging for urgent orders, and alerts for pending or delayed orders can significantly speed up workflow.

12. What technologies (dashboards, notifications, real-time alerts) would benefit supermarket operations?

Dashboards showing orders, sales, and inventory levels; push notifications for new orders; stock alerts; live pickup queue status; and real-time analytics would help staff and admins manage operations efficiently.

Geo Tagged Photos