Functional Requirement Document

For

Fresh Flow Grocery Mobile App

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1.0 Introduction

This section provides an overview of the purpose, scope, and objectives of the Fresh Flow Grocery Mobile App project, helping stakeholders understand its core goals and functionalities.

1.1 Purpose

This document defines the functional requirements for the development of a fresh-flow grocery mobile app. The app enables users to browse, order, and pray for grocery items. It will be available for both Android and iOS platforms.

1.2 Scope

The App will support the following core features:

- User Account Management
- Product Browsing
- Order Management
- Payment Processing
- Delivery Processing
- Reviews and ratings

2.0 Functional requirement

2.1 User Account management

2.1.1 User registration / login

- User can register via email, phone number, or social media.
- User must provide basic information (Name, Email, Phone, Password).
- Social login options (Google, Facebook, Apple) Should be supported.

2.1.2 User Profile

- Users can view and update their profile details.
- Users can save multiple delivery addresses.
- Users can view order history.

2.1.3 Password management

• User can reset their password via email or SMS OTP.

2.2 Product Browsing

2.2.1 category-based browsing

- Display products grouped into categories (e.g., Fruits, Vegetables, Dairy, Snacks).
- Allow users to navigate to subcategories if applicable (e.g., under Dairy: Milk, Cheese, Butter).

2.2.2 Search and filtering

- Users can search for a product by their name.
- Enable search filtering by categories, price range, availability, or discounts.

2.2.3 Product display

- Show product thumbnails with images, names, prices, and stock availability on the product listing page.
- Clicking on a product should open a detailed product page.

2.2.4 Product detailed page

- Name and description.
- Price (including discounted price if applicable).
- Weight or quantity details (e.g., "500g pack").
- Availability (in stock or out of stock).

2.3 Order Management

2.3.1 Adding items to cart

- Users can add Grocery items to their cart.
- The cart displays a summary of selected items, quantities, prices, and any applicable discounts.

2.3.2 Placing an order

- Users can select a delivery option.
- Users can place orders through the app after adding products to their cart.
- Ensure order details (products, quantities, price, and delivery address) are confirmed before submission.

2.3.3 Order confirmation

- Generate a unique order ID for every placed order.
- Display an order summary after checkout, including: Order ID, Product details, Delivery date and time.
- Send order confirmation notifications via email or SMS

2.3.4 Order tracking

- Users can track their order status (order Placed, being prepared, out for delivery, delivered).
- Integration with Google Maps allows real-time delivery tracking.

2.3.5 Order cancellation

- Allow users to cancel orders within a specified time frame.
- Notify users about the cancellation.

2.3.6 Refunds and Returns

- Enable customers to request refunds or returns through the app.
- Notify users about the refund status and estimated processing time.

2.4 Payment Processing

2.4.1 Payment Method

Users can pay via multiple options: credit/debit cards, digital wallets (Google Pay, Apple Pay), net banking, and COD (cash on delivery).

2.4.2 Promo Codes and Discount

- Users can apply promo codes or coupons during checkout.
- Discounts should be reflected in the order summary before final payment.

2.4.3 Payment Authentication

• Use two-factor authentication for card payment as mandate like OTP Verification

2.4.4 Payment Confirmation

- Users receive a payment receipt after successful payment.
- Notify users via email or SMS about payment confirmation.

2.4.5 Refund and cancellations

• The app supports refund processing for order cancellations.

2.5 Delivery Processing

2.5.1 Delivery tracking

 Integration with a real-time delivery system to show the driver's location and estimated arrival time.

2.5.2 Notification alert

 Users receive push notifications for key order updates (order confirmation, dispatch, out for delivery, delivered).

2.6 Reviews and Ratings

2.6.1 Reviews

• Users can leave their reviews for overall grocery shopping experience.

2.6.2 View reviews

Grocery shop admin should display uses reviews and ratings.

2.7 Admin Dashboard

2.7.1 Grocery store management

• Admins can manage store listings, including adding or updating details (name, category, products, hours, location, etc.).

2.7.2 Order management

• Admins can view all customer orders, track their status, and manually update them if necessary.

2.7.3 Analytics and reports

• Admins can access reports on customer orders, store performance, and payment transactions.

2.7.4 Promo codes management

• Admins can create and manage promotional codes for discounts.

2.8 Push Notification

2.8.1 Order status update

• Users receive notifications at various stages of the order process.

2.8.2 Promotional Notifications

• Admins can send promotional messages and deals to users / Customers.

3.0 Non-Functional Requirements

3.1 Performance

- Response Time: Updates should load within 5 seconds.
- Concurrency: Support 1000 simultaneous users.
- Accuracy: 95% accuracy in tracking updates.

3.2 Security

- Payment information should be securely transmitted using industry-standard encryption.
- User data must be protected according to GDPR standards.

3.3 Scalability

• The app should be scalable to support additional resources, users, and geographic multiple locations as needed.

3.4 Usability

- The app must be user-friendly and intuitive, with simple navigation.
- Optimized for Android and iOS.

4.0 Assumptions and Constraints

4.1 Assumptions

- Users have smartphones with internet access.
- Delivery agents' devices have enabled GPS.
- Customers have consistent internet for tracking.
- Location data accuracy relies on third-party services.

4.2 Constraints

- Delivery tracking may have slight inaccuracies due to GPS limitations.
- Integration with third-party delivery partners may affect the app's delivery times and tracking accuracy.

5.0 Glossary

Short Term	Description	
GDPR	General Data Protection Regulation	
COD	Cash on Deliver	
API	Application programming interface	

6.0 Use Case Diagram

