

Grocery On The Go!



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Introduction

In today's fast-paced world, convenience is key. With more people turning to online services for their daily needs, traditional supermarket shopping can feel outdated and time-consuming. SOUQÉ (pronounced Soo-ky) is a smart grocery shopping app developed using Flutter that brings the supermarket experience right to the palm of your hand. The goal of SOUQÉ is to simplify the way people shop for groceries by integrating intelligent features like allergy warnings, personalized recommendations, and location tracking for deliveries.

Project Goal

The **Smart Supermarket App (SOUQÉ)** is a user-friendly mobile grocery shopping platform developed using Flutter. SOUQÉ offers smart features such as allergy alerts, personalized suggestions based on user preferences, and real-time order tracking via Google Maps integration.

Target Audience

The app is designed for individuals who:

- Prefer to shop online instead of going to the store
- Have dietary restrictions or food allergies
- Want an app that learns their habits and suggests better options
- Value convenience, speed, and a modern shopping experience

Main Features

➤ Allergy Warning System

When a user selects a product that contains a known allergies (e.g., peanuts, gluten), the app immediately alerts them. This feature adds a layer of safety that's often missing in other shopping apps.

➤ Personalized Shopping Recommendations

Delivers tailored product suggestions based on users' shopping history and preferences, improving convenience and relevance.

➤ Google Maps Integration

Using *google_maps_flutter* and *geolocation* plugins, the app tracks your delivery in real time. Users can also allow the app to detect their current address for quicker order placement.

➤ Firebase Firestore Integration

Utilized for secure and scalable data management, including user authentication, data storage, and order tracking.

➤ Firebase Authentication with Google Sign-In

Supports secure user login via email/password or Google accounts, ensuring quick and safe access to the app.



➤ **Cart and Order Management**

Allows users to add products to their cart, manage current and past orders, and monitor order status in real time.

➤ **Favourites and Explore Sections**

Enables users to save favourite products and discover new items through curated categories and suggestions.

➤ **Account Management**

Offers easy access to edit personal details, manage saved addresses, and review order history.

State Management

The SOUQÉ app uses state management to efficiently handle user interactions, screen transitions, and real-time updates across the app. State management ensures that when users perform actions—such as adding items to the cart, updating personal medical data, or switching between tabs—the UI responds instantly and accurately.

For this project, the app leverages **Provider** (as seen in the pubspec.yaml) for managing state. Provider is a widely-used Flutter state management solution that enables separation of business logic from UI components, making the codebase easier to maintain and scale.

Examples of how state is managed in SOUQÉ:

- **Cart updates:** When users add or remove products, the total cost and item count update automatically across all related screens.
- **Favorites:** Items added to favorites reflect instantly in the favorites tab using reactive data binding.
- **User data (medical info, preferences):** Inputs like allergies and medical conditions are stored in shared state and referenced throughout the shopping experience, especially for allergy warnings and recommendations.

This approach enhances performance, ensures consistency across the app, and contributes to a seamless user experience.

Firestore Integration

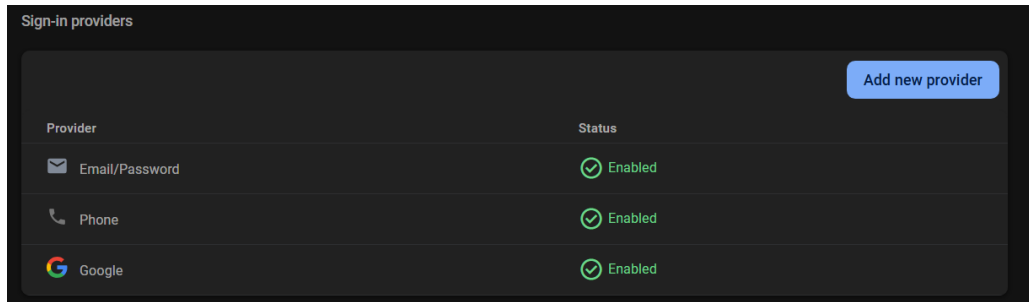
SOUQÉ is integrated with **Firestore**, a cloud-hosted NoSQL database, to manage user data securely and in real time. It supports:

- **User authentication** using email, phone, or Google accounts.
- **Storage of user profiles**, including medical info, favorites, and orders.
- **Order management**, allowing users to track orders through Firestore updates.

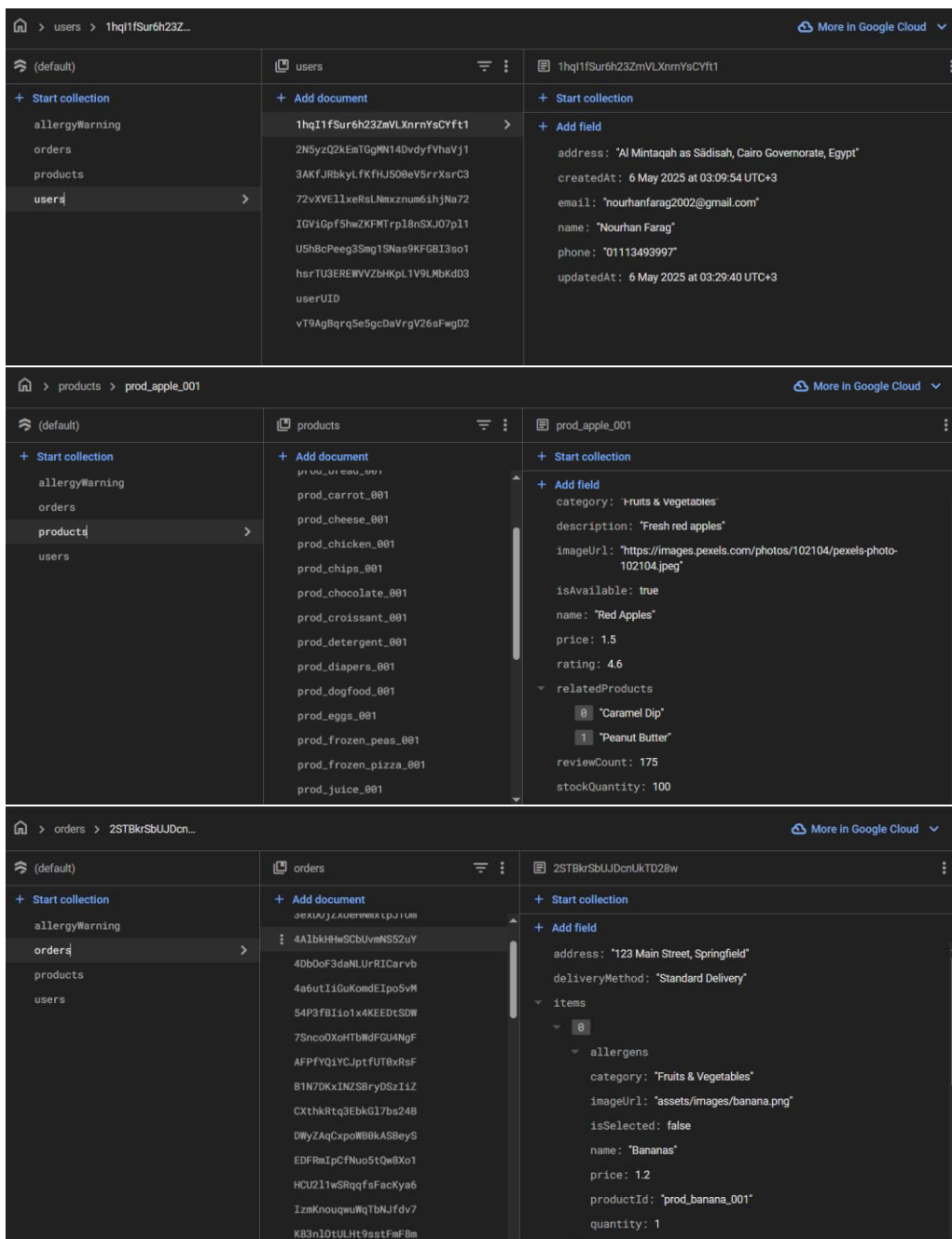
Firestore ensures high scalability, real-time synchronization, and secure data handling—critical for a seamless shopping experience.

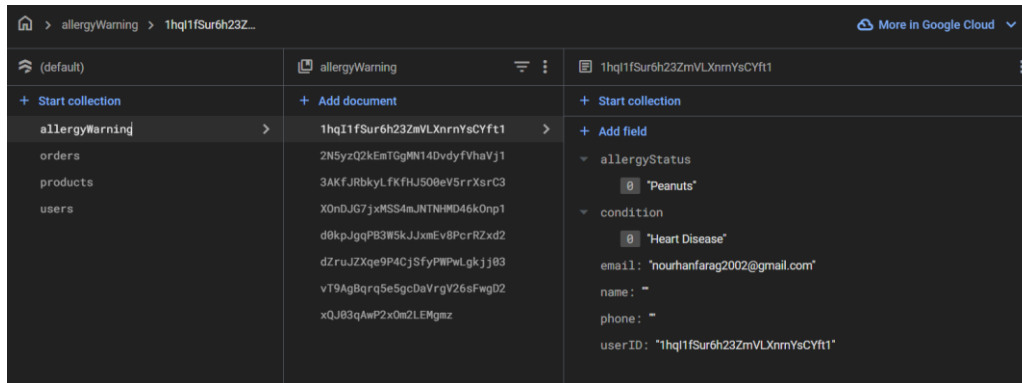


➤ Firebase Providers:



➤ Cloud Database:





Packages Used

Key dependencies in the project include:

- `firebase_core`, `firebase_auth`, `cloud_firestore`: Backend and data management
- `google_sign_in`: Login via Google
- `google_maps_flutter`, `geolocator`, `geocoding`: Map and location features
- `awesome_dialog`: Engaging feedback dialogs
- `intl`: Date and time formatting
- `provider`: State management
- `flutter_launcher_icons`: App icon generation

Assets & Customization

SOUQÉ includes a wide set of custom assets such as:

- Grocery item images (e.g., apples, beef, dairy)
- Icons for cart, profile, and location
- Branded app logo and custom fonts for branding and visual identity

Navigation and Routing

Navigation is handled through a centralized routing system defined in *AppRoutes*, which makes the app scalable and easy to extend. Every screen is mapped with a unique route name.

Challenges Faced

- **Firestore integration** across multiple screens required careful setup and testing.
- **Location permissions and real-time tracking** with Google Maps needed device testing and API key management.
- Managing **state across multiple features** like cart, favorites, and user data was a learning curve but handled efficiently with Provider.



Future Improvements

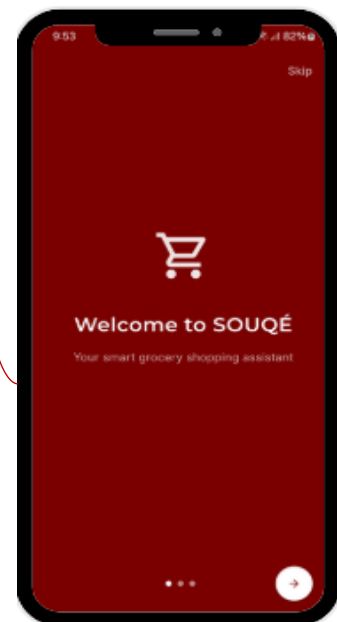
- Add barcode scanning to quickly add products.
- Include in-app notifications (e.g., delivery updates, low stock alerts).
- Expand personalization using machine learning.
- Offer voice search and smart filters.
- Implement dark mode and multi-language support.

SOUQÉ Screens



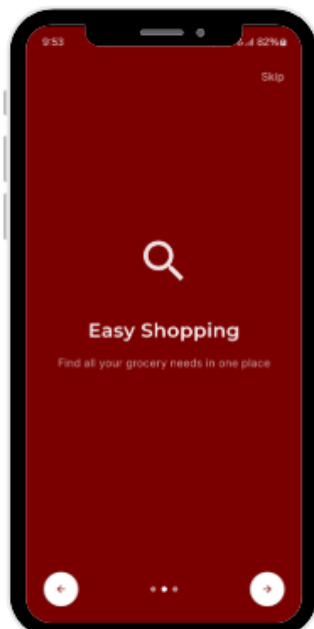
1. Intro Page

Introduces **SOUQÉ** brand with the "Get Started" button begins.



2. Onboarding Screen 1

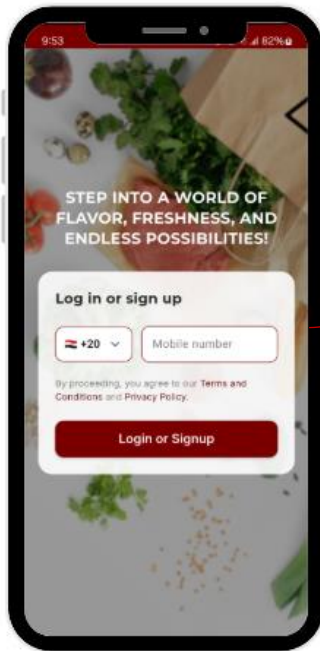
Welcome users and introduces **SOUQÉ** as their smart grocery shopping assistant.



3. Onboarding Screen 2

Easy Shopping Highlights convenience, telling users they can find all their grocery needs in one place.



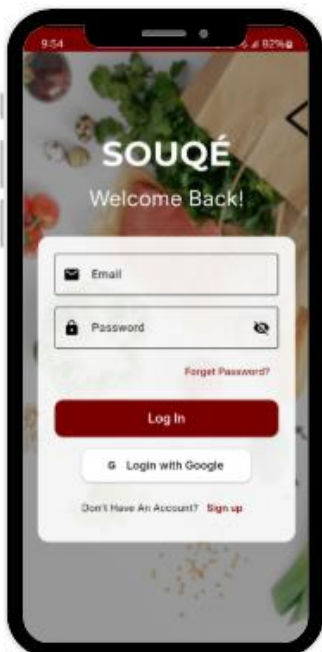
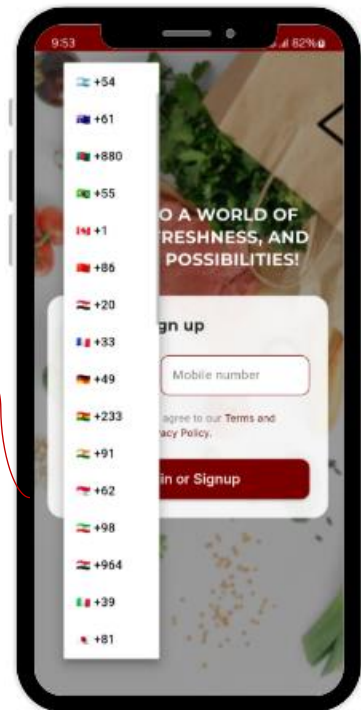


4. Phone Number

The user must enter their phone number to Log In or Sign Up

5. Country Codes

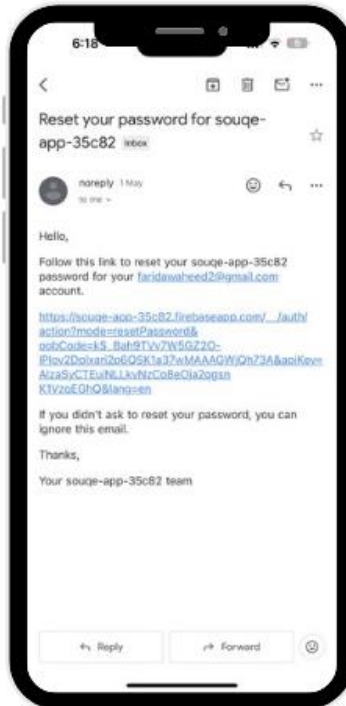
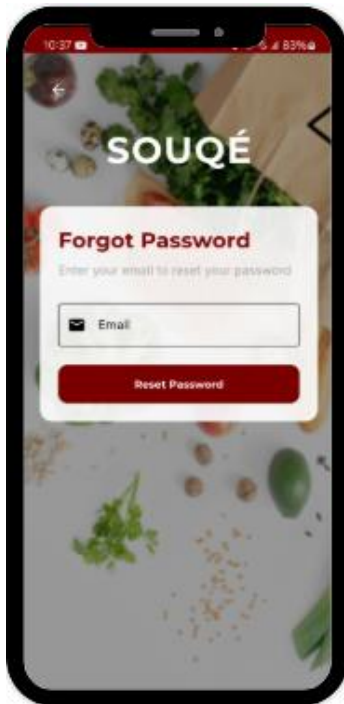
There is a display of a list of supported country codes so users can easily select their region for phone



6. Log In Page

Users can easily Log in using email or Google, with options for password reset and account creation.



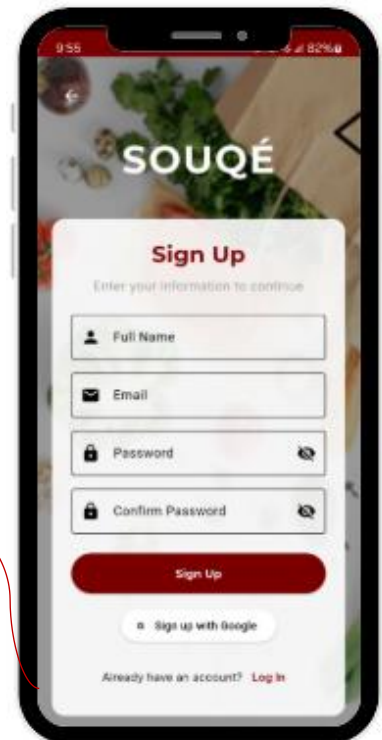


7. Forget Password

Allows users to reset their password via email if they've forgotten their login credentials.

8. Sign Up

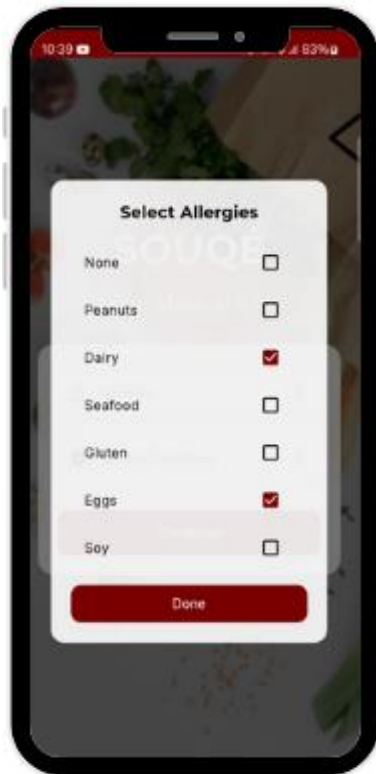
Enables new users to create an account using email, password, and full name. Google sign-up is also available.



9. Medical Info

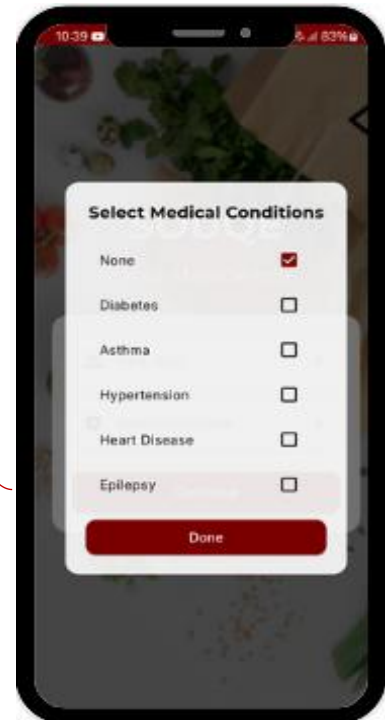
Let users enter allergies and medical conditions to personalize recommendations and trigger allergy warnings.





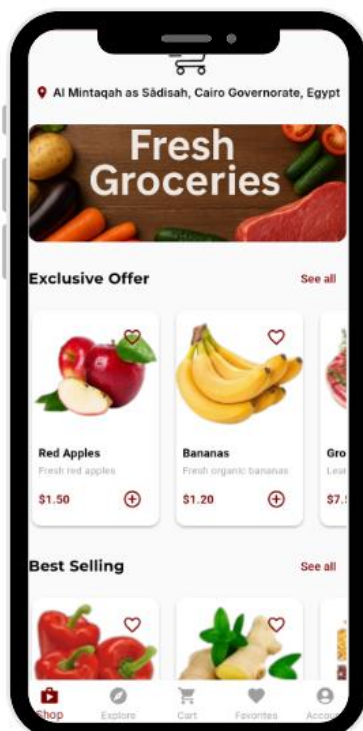
10. Select Allergies

Allows users to reset their password via email if they've forgotten their login credentials.



11. Medical Conditions

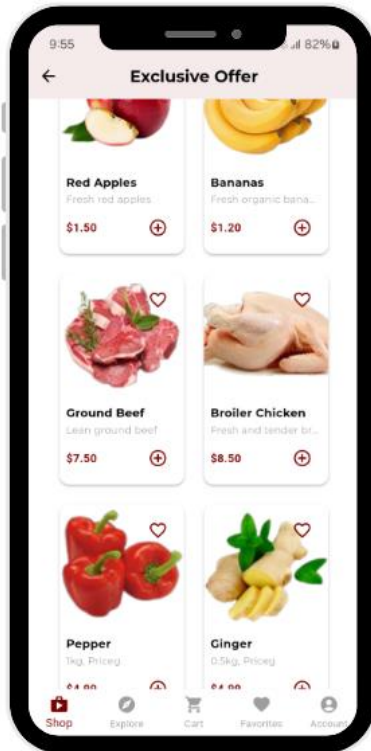
Select Medical Conditions to alert them when a product may pose a health risk



12. Home Screen

It Shows Your current location
Exclusive Offer & Best Selling



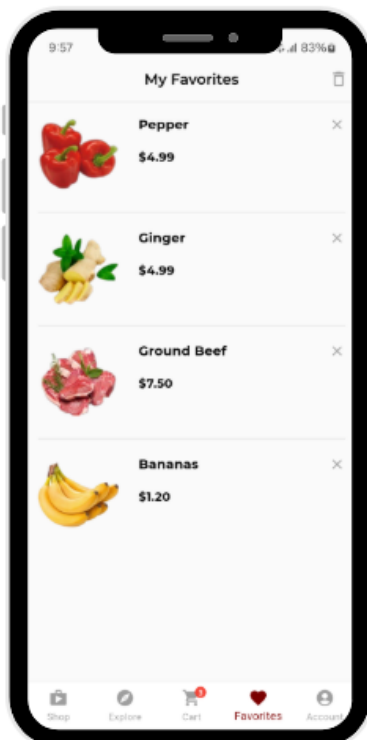
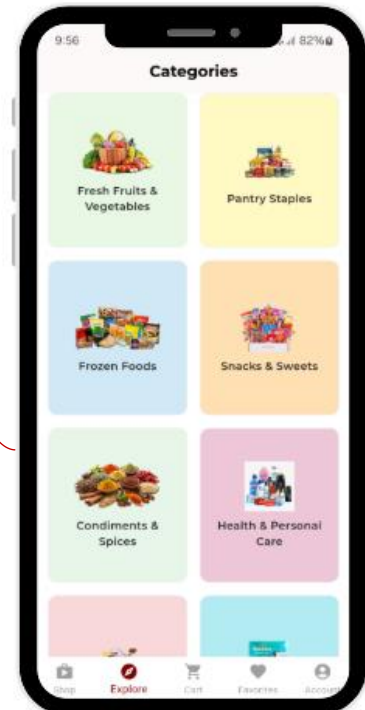


13. Exclusive Offer

Shows a full list of promotional items. Users can favorite or add products instantly with one tap.

14. Categories Screen

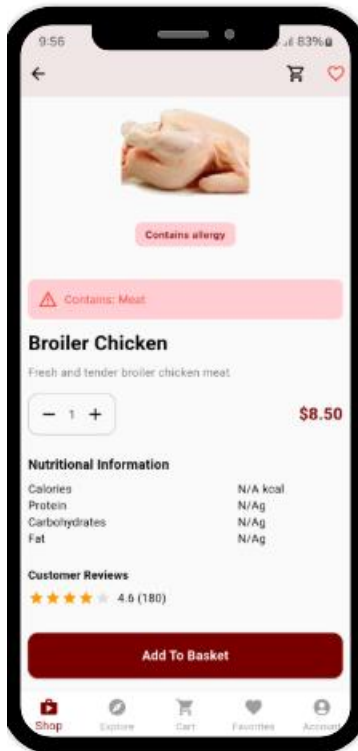
Allows users to browse by category



15. Favorites Screen

Lists saved favorite items for quick access and easy reordering



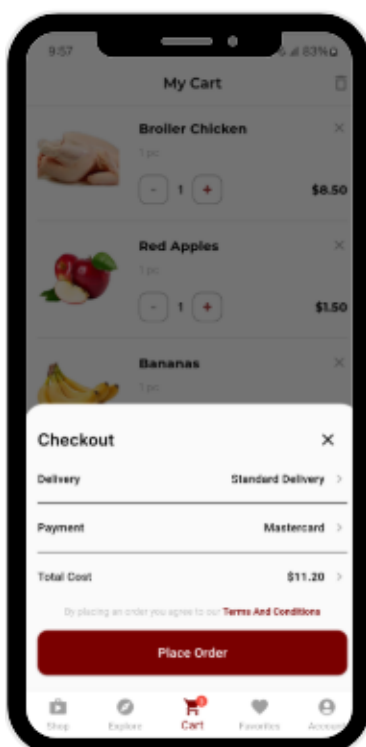
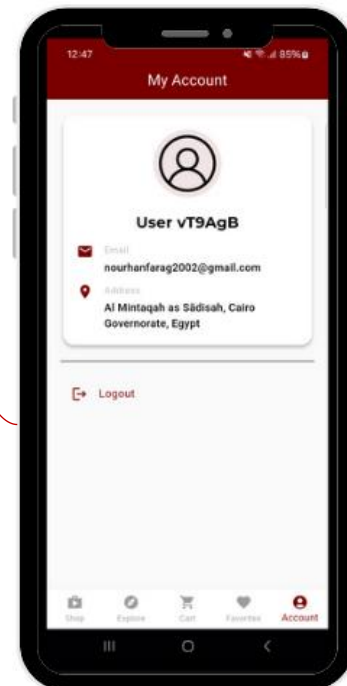


16. Product Details

Detailed product info with an allergy warning. Shows ingredients, nutrition facts, price, quantity, and user reviews.

17. User Account

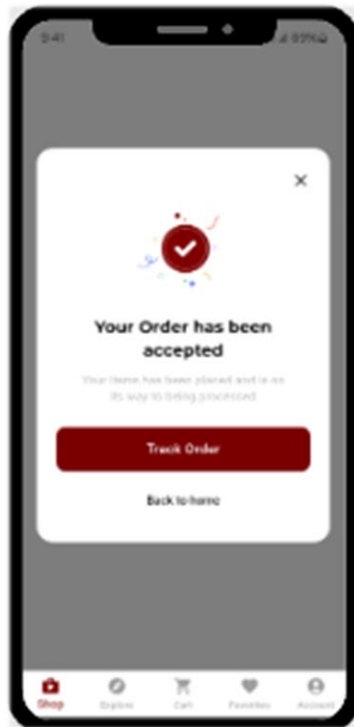
Allow User to Check their Information , Their Orders and Tracking Them



18. Check Out

Lets users confirm delivery and payment method before placing the order. Shows the total cost and order terms.





19. Order Placed

To Confirm That Your Order Has been Placed Successfully

20. Track Order

Tracks delivery in real time using Google Maps. Displays order status (placed, preparing, on the way, delivered) and estimated

