

HomeBite Project Report

1. Project Aim and Description

Aim:

To build **HomeBite**, a cross-platform food delivery app that connects home chefs with customers who want fresh, affordable, home-cooked meals. The app encourages community entrepreneurship and simplifies the process of ordering local homemade food.

Description:

HomeBite is being developed using **Flutter and Dart** for a smooth and consistent mobile experience and **Firestore** as the backend for database, authentication, and serverless API logic. The app includes:

- A secure user authentication system.
 - API endpoints for CRUD operations.
 - App bar icons for intuitive navigation between screens.
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2. Functional and Non-Functional Requirements

Functional Requirements:

- **User Authentication:** Sign up/login using email and social accounts via Firebase Auth.
- **API Integration:** Use Firebase Functions for serverless API actions (e.g., order processing).
- **App Navigation:** App bar icons to navigate between Home, Orders, Profile, and Notifications.
- **Meal Listings:** Cooks can add, edit, and remove meals.
- **Ordering System:** Customers can place, track, and review orders.
- **Notifications:** Real-time updates using Firebase Cloud Messaging.
- **Admin Panel:** Admin can approve/reject users and monitor app activity.

Non-Functional Requirements:

- Responsive design across iOS and Android.
- Fast performance and smooth navigation.

- Secure API calls with Firebase security rules.
 - Data synchronization using Firestore.
 - Clean UI with accessible color contrast and fonts.
 - Real-time updates and offline support where possible.
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3. User Stories

Customer

- I want to register/login securely so I can place orders.
- I want to use icons to easily switch between screens (e.g., meals, cart, orders).
- I want to receive real-time updates about my order.
- I want to leave a rating and comment after receiving my meal.

Home Cook

- I want to log in and manage my meals from a dashboard.
- I want to receive alerts when an order is placed.
- I want to edit my menu with images, prices, and availability.
- I want to view order history and respond to special requests.

Admin

- I want to verify new cook registrations before approval.
 - I want to view flagged users or dishes and take action.
 - I want to monitor order trends and user feedback.
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4. Test Cases

| Test Case ID | Description | Input | Expected Output | Priority |
|--------------|----------------------------|--------------------|-------------------------------------|----------|
| TC001 | User Auth - Register/Login | Email, password | Success login, route to home screen | High |
| TC002 | App Bar Navigation | Tap "Profile" icon | Navigate to profile screen | High |

| Test Case ID | Description | Input | Expected Output | Priority |
|--------------|---------------------------|-------------------------------|--|----------|
| TC003 | Meal CRUD (Cook) | Add/edit/delete meal info | Update reflected in Firestore & UI | High |
| TC004 | Order Placement | Choose dish, submit | Order saved & status visible in Orders | High |
| TC005 | API Call for Order Status | Order ID via function trigger | Current order status fetched/displayed | Medium |
| TC006 | Admin Reject User | Select user, reject | User status changed, access revoked | High |

5. Individual's Roles and Responsibilities

Mohamad A

Role: Project Manager & Firebase Backend/API Developer

- Oversees timelines and coordination
- Builds Firebase-based API endpoints (e.g., order, user control)
- Sets up authentication, Firestore schema, and security rules

Parnika N

Role: Flutter Developer & Frontend Integration

- Implements Flutter UI with proper state management
- Connects frontend with Firebase APIs
- Designs and programs app bar navigation and UX flows

Saleem K

Role: QA Engineer & DevOps

- Tests authentication, navigation, and API responses
- Manages build tools, CI/CD pipeline, and crash/error reports
- Monitors Firebase logs and performs release testing