

NutriScan

Introduction

NutriScan is a **Flutter-based** nutrition tracking app designed to help users **search, track, and manage** their daily food intake. It fetches real-time **nutritional information** from API Ninjas, allowing users to check **calories, protein, and other nutrients**. Users can **save food details**, track calories, and manage their profile. All data is securely stored in **Firebase Firestore**, ensuring seamless access across devices.

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Problem Statement



Tracking daily nutrition is often **complex, time-consuming, and inaccessible.**

Existing solutions are either complicated or inefficient. Users need a **simple, fast, and user-friendly app** to easily access and log nutritional information for a healthier diet.

Project Overview

Key Features of NutriScan

Introducing NutriScan: a smart nutrition tracking app designed to help users easily monitor their dietary intake. Key features include: **Search Functionality** for retrieving detailed nutritional information, **Saved Food Information** for quick reference, **Calorie Tracking** for effective daily intake management, and **User Profiles** for secure authentication and personalized data access.



Technical Details

Technical Details: **Data Source** is from API Ninjas, and **Data Storage** is securely managed in Firebase Firestore, ensuring reliability and security for all user data.



Cloud Firestore

Project Flow



User Experience Components

The user experience is designed to be intuitive and efficient, featuring the following components: **Home Page** with a **search bar** for users to input food items, displaying nutritional details such as **calories** and **protein** from API Ninjas; **Saved Page** for users to save frequently consumed food items; **Calorie Tracker** to monitor daily calorie intake; and **Profile Management**



Data Security

All user data is securely stored in **Firebase Firestore**, ensuring privacy and data integrity.



Navigation Flow

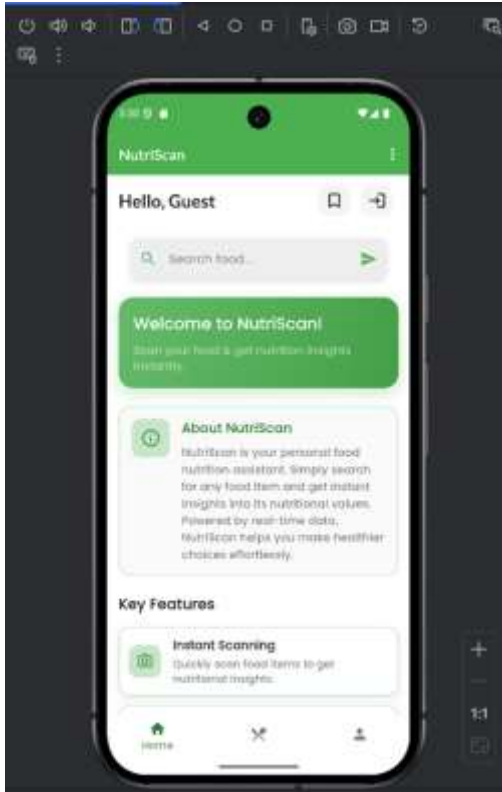
Sign Up/Login allows users to create an account or log in; **Search and Save** enables users to search for food items, view nutritional information, and save details; **Track and Manage** allows users to track their calorie intake and manage their profiles seamlessly.

Tech Stack

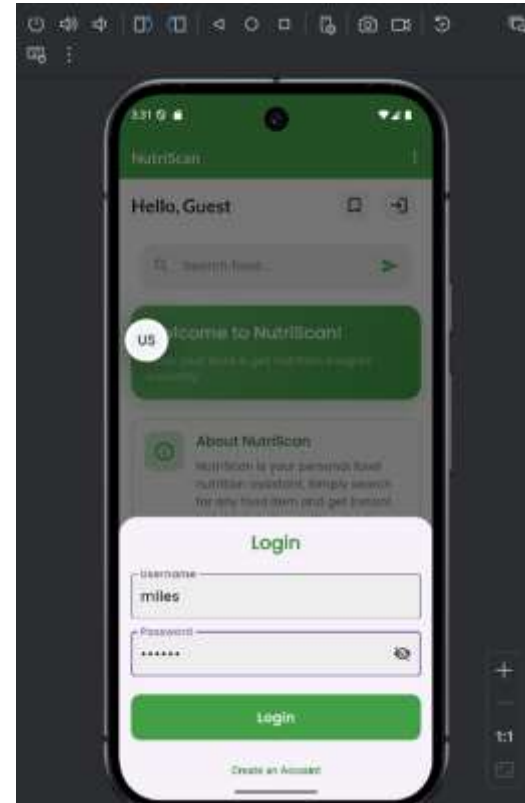
- ◆ **Frontend:** Flutter (Dart) for a responsive UI
- ◆ **Backend:** Firebase Firestore for data storage
- ◆ **API:** API Ninjas for real-time nutrition data
- ◆ **State Management:** Provider (or setState) for managing app state

Screenshots And Demo

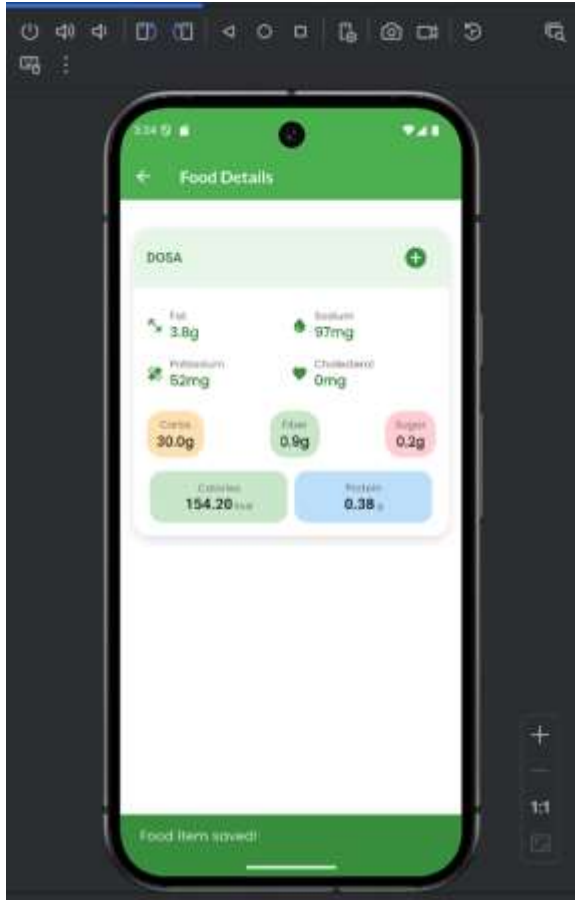
Home Page



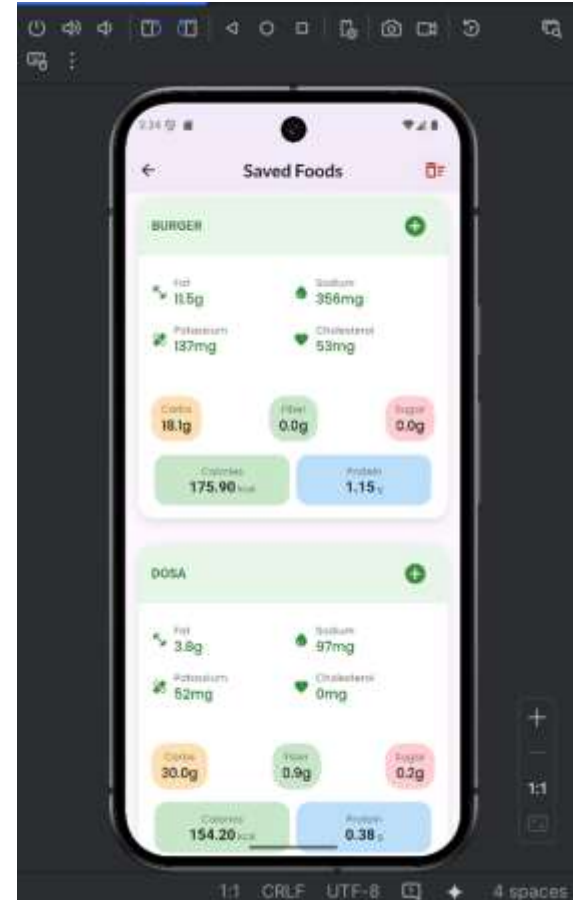
Signup / Login Form



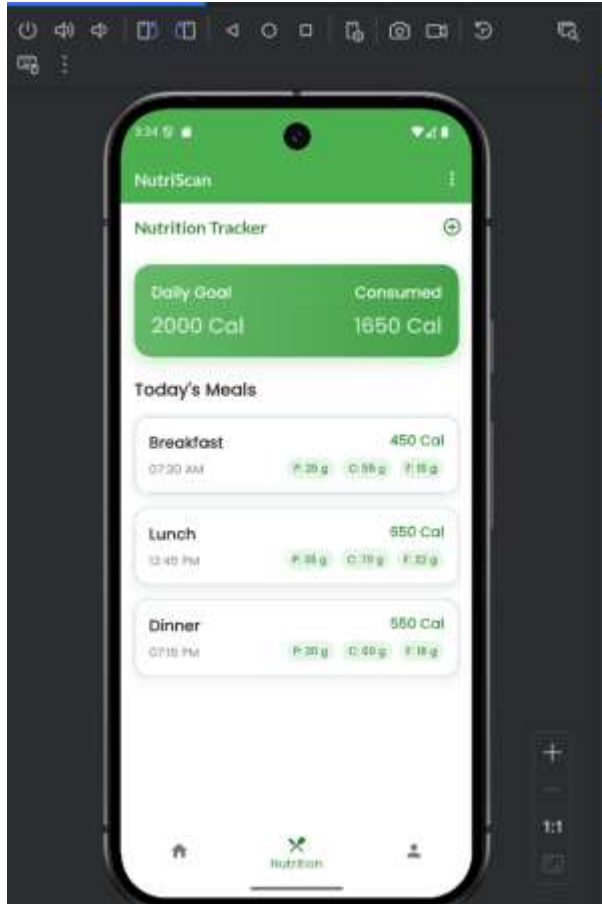
Nutrition Details Page



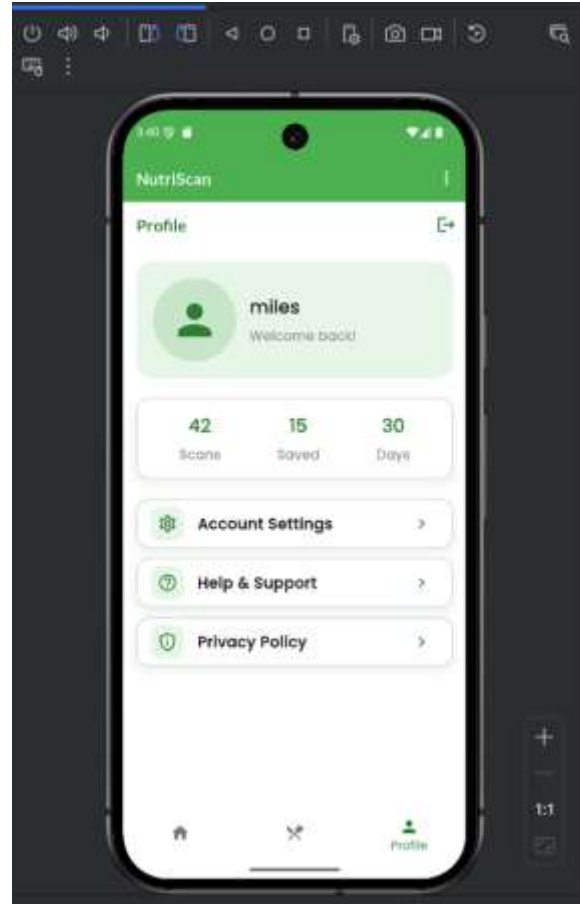
Saved Page



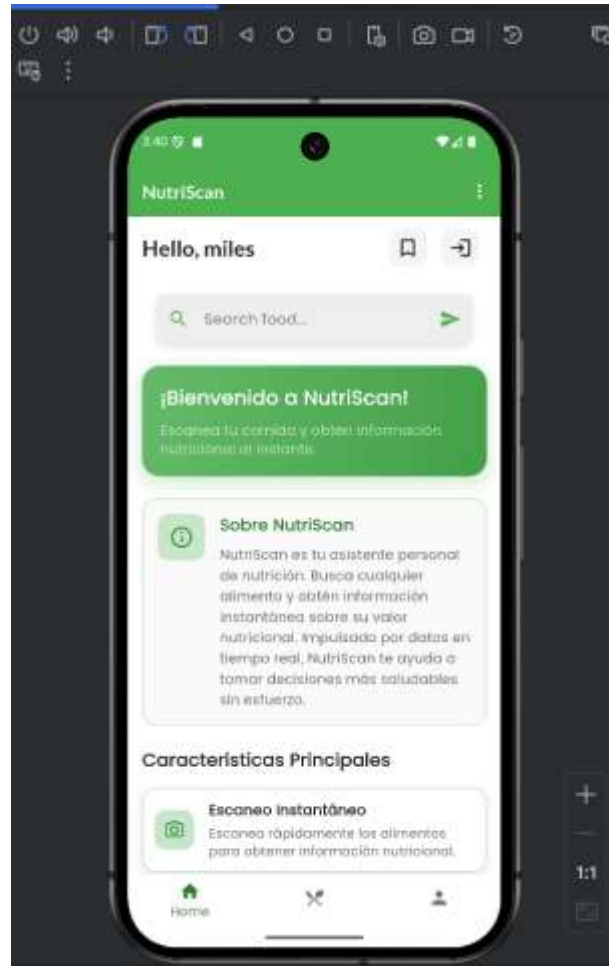
Nutrition Tracker Page



Profile Page



Localization Support



Firestore Database – User Login Details

The screenshot displays the Firebase console interface. On the left sidebar, the 'Firestore Database' option is selected. The main panel shows the 'users' collection under the 'Yh5d9cJ16NEr...' project. A specific document is selected, showing its details in a right-hand pane.

Firestore Database Structure:

- Collection: `users`
- Document ID: `Yh5d9cJ16NErW6I8ZSOA`

Document Data:

- `createdAt`: 29 March 2025 at 15:31:08 UTC+5:30
- `password`: "123456"
- `username`: "miles"

Conclusion

NutriScan simplifies nutritional tracking by providing **quick, accurate, and accessible** food insights. With a user-friendly interface and real-time data retrieval, it helps individuals make **informed dietary choices** effortlessly. Future enhancements may include **meal planning, barcode scanning, and expanded food databases** for an even better experience.

Thank You!