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FoodSearch Application Documentation

Overview

FoodSearch is a mobile application developed in Kotlin using Android Studio. It allows users to search, add, and rate recipes. The application uses Firebase Firestore for data storage and Firebase Authentication for user authentication.

Main Components

Activities

MainActivity.kt

This is the entry point of the application. It provides the user with options to either log in or register.

LoginActivity.kt

This activity handles user authentication. It allows users to log in using their email and password.

RegisterActivity.kt

This activity allows new users to register by providing their email and password.

HomeActivity.kt

This is the main screen of the application. It displays a list of all recipes and provides options to navigate to other activities such as AddActivity, SearchActivity, and UserActivity.

AddActivity.kt

This activity allows users to add new recipes. It collects information such as recipe name, description, image URL, author name, and genre.

SearchActivity.kt

This activity allows users to search for recipes by genre.

FavouriteActivity.kt

This activity displays a list of all recipes that have a rating of 5.

UserActivity.kt

This activity displays user information and provides options to log out or navigate to FavouriteActivity.

RecipeActivity.kt

This activity displays detailed information about a specific recipe. It also allows users to rate the recipe.

Data Classes

Recipe.kt

This data class represents a recipe. It contains fields for id, title, description, image URL, author name, rating, and genre.

Adapters

RecipeAdapter.kt

This adapter is used to populate RecyclerViews with recipe data.

Libraries and Frameworks

The application uses the following libraries and frameworks:

- Firebase Firestore: Used for data storage.
- Firebase Authentication: Used for user authentication.
- Picasso: Used for image loading.

User Flow

1. The user is greeted with a login/register screen (MainActivity).
2. After successful login or registration, the user is taken to the home screen (HomeActivity).
3. From the home screen, the user can navigate to add a new recipe (AddActivity), search for recipes (SearchActivity), view their profile (UserActivity), or view a specific recipe (RecipeActivity).
4. In the user profile (UserActivity), the user can view their favourite recipes (FavouriteActivity) or log out.

Data Flow

1. User data and recipe data are stored in Firebase Firestore.
2. When an activity requires data, it fetches the necessary data from Firestore.
3. When a user adds or updates a recipe, the changes are saved to Firestore.
4. User authentication is handled by Firebase Authentication.