BillBuddy - Manual

Mobile Computing

IS Medieninformatik B.Sc.
HSB – Hochschule Bremen - Bremen

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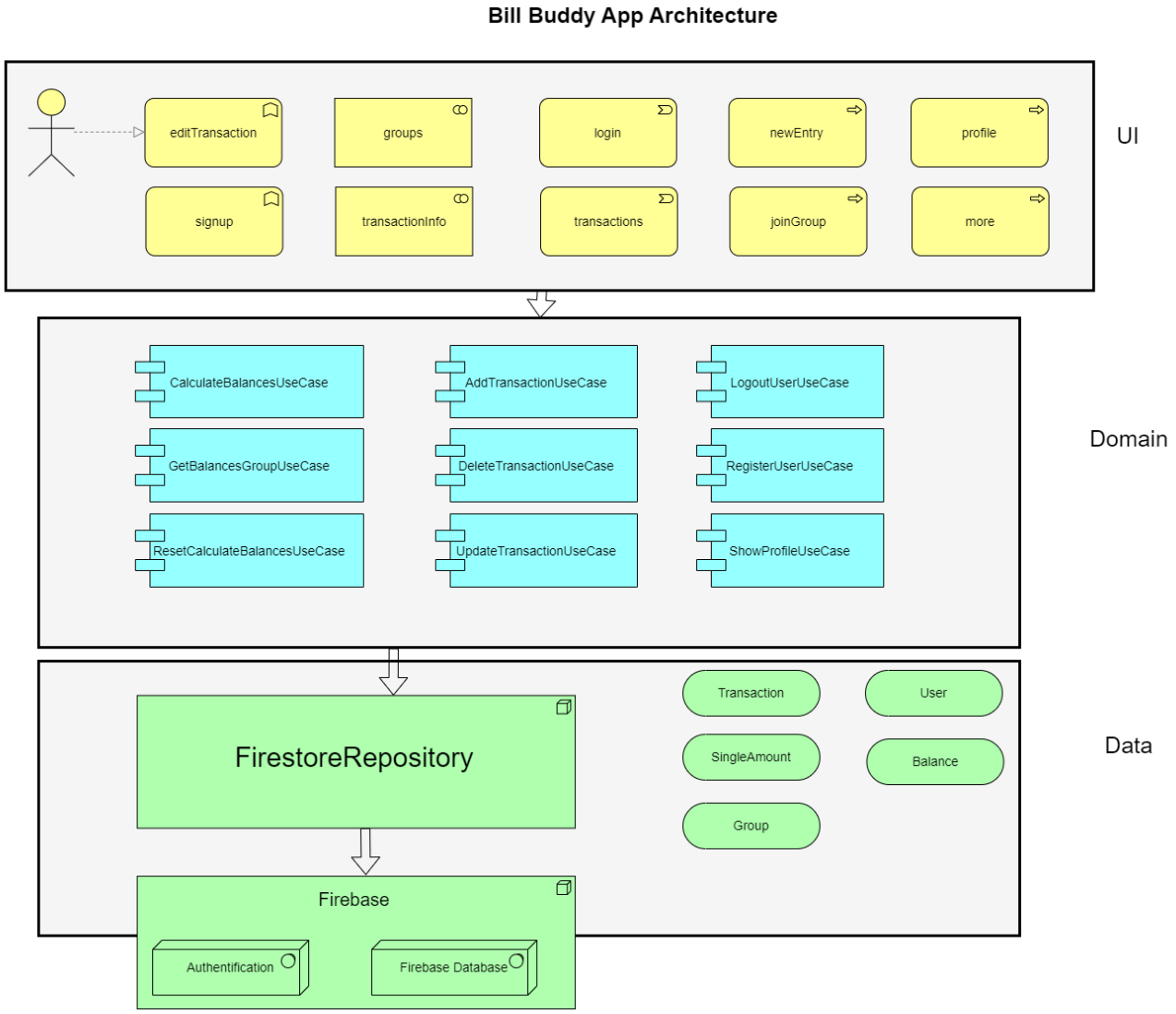
Software Architecture



Introductory Manual: Billbuddy

1. Overview

Billbuddy is an Android application designed “to track individual purchases and give an overview of debts and balances in a group”. This manual provides an overview of the software architecture and essential information for developers and maintainers.

2. Software Architecture

Our application follows a three-tier architecture, separating concerns into distinct layers:

2.1 Presentation Layer (UI)

Comprises UI screens and their corresponding ViewModels. Each UI screen with complex logic has an associated ViewModel. UI components and ViewModels are packaged together for comfortability regarding the structure.

2.2 Domain Layer

Contains the core business logic and use cases. Not every method will be handled in the use cases. Use cases interact with the data layer through the Firebase repository.

2.3 Data Layer

Model: Defines all data classes used in the application
Repository: Implements the main functions for interacting with Firestore (get, update, delete data)

3. Login and Authentication

3.1 User Authentication

The app uses Firebase Authentication for user management
Supported login methods: Email/Password

3.2 Test Accounts

These are already existing accounts. You can also create an account for yourself:

Regular users:
Username: an@mail.com , password: an1234

Username: ramon@mail.com, password: ramon12345678

Username: betareis@mail.com , password: bea1234567

4. Dependencies and Third party software

- DaggerHilt
- Navigation UI/Compose
- gms google services (Firebase)
- Material3