Project Title

SplitWise Clone – Group Expense Sharing Application

Objective

To build a simple, user-friendly mobile application that helps individuals manage shared expenses in group scenarios like trips, parties, events, and roommates — ensuring transparency, fairness, and ease of tracking who paid and who owes.

Problem Statement

In group activities, people often struggle to keep track of who spent how much and how to divide expenses fairly. Existing solutions may be too complex or not personalized. Users need a straightforward, real-time solution to split bills with clarity and minimal confusion.

Proposed Solution

We propose a Flutter-based mobile app that allows users to:

- Log in securely
- Create expense entries with split logic
- View group expenses
- Mark who has paid and who hasn't
- Keep a complete history of expenses

The app supports various split types such as Equal, Exact, and Percentage-based splits and offers paid/unpaid tracking for each participant.

Key Features

- User Authentication: Firebase Auth for secure login/logout
- Add Expense: Enter amount, description, participants, and split logic
- Split Logic Options: Equal, Percentage-based, and Exact amount splits
- Group Support: Create and manage groups for repeated expense tracking
- Expense List: View history of expenses with timestamps and status
- Paid/Unpaid Tracking: Maintain clarity over who owes what

Technology Stack

- **Frontend:** Flutter
- Backend Database: Firebase Firestore
- Authentication: Firebase Auth
- Other Tools: UUID, State Management (setState), StreamBuilder for live data

Future Enhancements

- Bill scanning via OCR
- Push notifications for dues and reminders
- Visual analytics for spending habits
- UPI payment integration
- Al-based smart split suggestions

Expected Outcome

A cross-platform (Android/iOS) mobile app that streamlines group expense sharing. It minimizes confusion, ensures transparency, and provides a convenient way for users to manage shared costs effectively.