Specification Document — *Budget Tracker App*
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1. Overview

Project name: Budget Tracker
Goal: Allow users to record their incomes and expenses, and display a monthly financial summary using a local SQLite database.
Architecture: MVVM (Model – View – ViewModel)
Technologies: Kotlin, Jetpack Compose, SQLite

Repository github : Repository link, Copy the work on your space and complete BudgetDatabaseHelper.kt only

2. Functional Specifications

2.1 Core Features

- Add Expense:
  User can enter title, amount, category, and date.

- Add Income:
  User can enter monthly income and amount.

- Monthly Summary:
  The app displays total income, total expenses, and remaining balance..

- Suppress/modify:
  User can change or delete actual incomes / expenses

- Monthly Summary:
  The app displays total income, total expenses, and remaining balance..

3. Technical Specifications

3.1 Database Schema

Tables:

- expenses(id, title, amount, category, date)

- incomes(id, month, amount)

3.2 Data Flow

1. User Input → Composables (ExpenseScreen, IncomeScreen)
2. ViewModel → Handles logic, calls Repository
3. Repository → Manages data access using BudgetDatabaseHelper
4. SQLite Database → Stores persistent data locally

3.3 Example Interactions

- Adding an expense calls insertExpense()
- Summary screen uses getMonthlyTotal() and getMonthlyIncome()
- Data displayed dynamically via Compose UI

4. Architecture Overview

- Model: Data classes (Expense, Income)
- ViewModel: BudgetViewModel → manages state and logic
- Repository: BudgetRepository → abstracts database access
- View (UI): ExpenseScreen, IncomeScreen, SummaryScreen

5. Unfinished Project (UP) Tasks

Students must implement the following:

- Complete CRUD functions in BudgetDatabaseHelper (currently commented).
- Add UI validation (e.g. empty fields).
- Add monthly filtering or chart visualization.
- Connect summary calculations to real data.

6. Documents available on the repository

- Project Folder + Graddle
- PDF presentation
- PDF Spec documents