

# Kalmm Budgeting

An Android budgeting app built with Kotlin, Room, Coroutines, and MPAndroidChart. Track your income, expenses, and savings goals, earn achievements, and get alerts when you're about to overspend.

## Features

### Log Entries

- Income or Expense
- Amount, date, category, optional image
- Persisted via Room

### Reports

- Expense and Income transactions list
- Expense and Income overviews with grouped bar charts
- Goals grouped bar charts to compare against expenses
- Filter by category

### Home Dashboard

- Current balance, total income & expense
- Quick "Log Income" / "Log Expense" buttons
- Expense-cap goals with progress bars

### Goals

- Create expense-cap goals per category

- Visualize progress, edit/delete goals

### Achievements (Custom Feature 1)

- “First Timer” on first app launch
- “Smart Saver” on first goal creation
- “Diligent User” on third expense log
- View unlocked and all achievements on Profile

### Dynamic Profile “Title” (Custom Feature 2)

- Ranks (e.g. Penny Pincher, Big Baller) based on net balance

## Screens

1. **\*\*Main (Launcher)\*\***
2. **\*\*Home\*\***
3. **\*\*Log New Entry\*\***
4. **\*\*Reports (Expense)\*\***
5. **\*\*Reports (Income)\*\***
6. **\*\*Annual Overview\*\***
7. **\*\*Create New Goal\*\***
8. **\*\*Profile\*\***
9. **\*\*Achievements Detail\*\***

## Architecture & Libraries

- **MVVM-lite** with Activities + Room + Coroutines
- **Room** for local persistence
- **Kotlin Coroutines** (`Dispatchers.IO` for DB, `Main` for UI)
- **MPAndroidChart** for bar charts
- **AlarmManager** + `BroadcastReceiver` for daily overspend checks
- **ViewBinding** for strongly-typed XML binding

## Setup & Build

1. **Clone** the repo
2. Open in **Android Studio Arctic Fox** or later
3. Ensure ``minSdk 24`, `targetSdk 35``
4. **Sync Gradle** (includes Room, Coroutines, Chart, CardView)
5. **Run** on emulator or device

**Note:** On schema changes, the app uses ``fallbackToDestructiveMigration()``, so uninstall/reinstall to avoid migration errors.

## Usage

- **First Launch**: Grants “First Timer” achievement
- **Add a Goal**: Tap “+ New Goal” on Home → enter name, amount, category → “Smart Saver” unlocks
- **Log Expenses**: Tap “Log Expense” → fill form → on 3rd expense, “Diligent User” unlocks
- **View Reports**: Navigate to Reports → filter by category → check totals
- **Annual Chart**: See grouped bars for monthly expenses vs. total goal cap
- **Profile**: View balance, dynamic title, and achievements

## Localization & Assets

- All labels in `res/values/strings.xml`
- Icons in `res/drawable/` (e.g. `ic\_firsttimer`, `ic\_smartsaver`, `ic\_diligentuser`)
- Styles in `res/values/themes.xml`

## Future Improvements

- Proper Room migrations instead of destructive fallback
- User authentication & cloud sync
- More achievements & badges
- Dark mode styling

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