

Mobile Application Development – CA Component 3

Task: Personal Finance Tracker App

Overview

Develop a **Personal Finance Tracker** mobile application using **Kotlin** that allows users to track their income, expenses, and savings. The app should provide an intuitive and simple interface to record financial transactions and analyze spending habits.

This project will help you **understand real-world mobile development** by working on data persistence, notifications, and UI design in Android Studio

Core Features

1. **Transaction Management**
 - Users can add, edit, and delete income and expense transactions.
 - Each transaction must include **title, amount, category, and date**.
2. **Category-wise Spending Analysis**
 - Users can categorize transactions (e.g., Food, Transport, Bills, Entertainment, etc.).
 - The app should display a **summary of expenses per category**.
3. **Monthly Budget Setup**
 - Users can set a monthly budget and track their progress.
 - Display a warning when spending nears or exceeds the budget limit.
4. **Data Persistence using SharedPreferences**
 - Save user preferences such as currency type and budget settings.
 - Maintain a simple transaction history that persists across app restarts.

Bonus Features

1. **Data Backup using Internal Storage**
 - Allow users to export their transaction data as a text file or JSON.
 - Provide an option to restore data from a backup.

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2. Push Notifications for Budget Alerts

- Notify users when they approach or exceed their set monthly budget.
- Optional reminders to record daily expenses.

Technical Requirements

- The app should be developed in **Kotlin**.
- UI should be designed using **XML layouts** with a focus on simplicity and usability.
- Use **SharedPreferences** for data persistence.
- Implement **Internal Storage** for backup functionality.
- Notifications should be implemented using **Android's Notification Manager**.

Evaluation Criteria

- **Functionality:** How well the core and bonus features are implemented **(4 Marks)**.
 - **Creativity & Usability:** Clean and intuitive UI/UX design **(2 Marks)**.
 - **Validation & Error Handling:** Proper input validation, error handling, and user feedback implementation **(2 Marks)**.
 - **Data Persistence:** Proper use of **SharedPreferences** and **Internal Storage** **(2 Marks)**.
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