

Personal Finance Tracker SQL Project Report

1 Introduction

Personal finance tracking is essential for managing income, expenses, and budgeting effectively. This mini-project builds a **simple SQL-based personal finance tracker** to store user income and expenses, categorize transactions, and generate reports for monthly and category-wise analysis using SQL.

2 Abstract

The Personal Finance Tracker is a lightweight database system built using **SQLite/MySQL** to help users monitor their financial activities efficiently. The system stores user details, income records, and categorized expenses, generating summary reports. SQL views and queries provide insights into spending patterns, helping users manage budgets and savings practically.

3 Tools Used

- **Database:** SQLite / MySQL
 - **IDE:** DB Browser for SQLite / MySQL Workbench
 - **Language:** SQL
 - **Export:** CSV reports for analysis
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4 Steps Involved in Building the Project

✓ **Schema Design:** Created tables (Users, Categories, Income, Expenses) with proper relationships using FOREIGN KEY constraints for data integrity.

✓ **Dummy Data Insertion:** Inserted test user details, categories (Groceries, Rent, Utilities, Entertainment), sample income entries (Salary, Freelancing), and expenses for testing.

✓ Query Building:

- **Monthly Expense Summary:** Using GROUP BY and strftime for month-wise totals.

- **Category-wise Spending:** Summarizing expenses per user by category.
- **Balance Tracking View:** Created UserBalances view to calculate income, expenses, and balance per user dynamically.

✓ **Report Generation:** Executed queries to export structured CSV reports for tracking and analysis.

✓ **Testing:** Verified table relationships and correctness of exported reports.

5 Conclusion

The **Personal Finance Tracker SQL project** demonstrates practical SQL application for budget management through structured data handling, transaction tracking, and report generation. It strengthens SQL skills while addressing a real-life scenario and can be extended into a complete personal finance management system with a frontend dashboard.

◆ Highlights:

- ✓ Lightweight and portable
 - ✓ Uses pure SQL for tracking and reporting
 - ✓ Exportable for practical analysis
 - ✓ Ready for expansion to full-stack integration
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⚡ **End of Report**