Personal Finance Tracker - SQL Project Report

Introduction

The Personal Finance Tracker project is aimed at designing a simple SQL-based system that enables users to track their income and expenses, categorize their spending, and generate reports for financial analysis. This system allows users to monitor their monthly balance, categorize expenses, and view reports that summarize financial data.

Abstract

In today's fast-paced world, managing personal finances is crucial. The Personal Finance Tracker system is a relational database management project that helps users keep track of their income and expenses. It provides insights into spending habits and balances by generating reports such as monthly income summaries, category-wise expenses, and the overall financial balance. The project employs basic SQL queries, views, and relational database design to store and analyze financial data.

Tools Used

- MySQL: Used for creating the relational database and managing data.
- SQL: Language used to write queries, create tables, insert data, and generate reports.
- DB Management Tools: Any SQL IDE such as MySQL Workbench or DBeaver for database management.

Steps Involved in Building the Project

1. Database Design
   - Designed the database schema with tables for Users, Categories, Income, and Expenses.
   - Normalized tables to ensure data consistency.

2. Table Creation and Data Insertion
   - Created tables with proper constraints.
   - Inserted sample user data, categorized income and expenses.

3. Query Development
   - Developed queries for calculating total income, total expenses, and category-wise spending.
   - Created views for Monthly Summary and Category-wise Expense Report.

4. Views for Reporting
   - Created SQL views to summarize monthly and categorized financial data.

Conclusion

The Personal Finance Tracker SQL project successfully models the financial tracking needs of users by organizing data into manageable tables and enabling easy retrieval of reports. SQL queries and views ensure quick and accurate access to insights. This project demonstrates how databases can be used to solve real-world problems and help users make informed financial decisions.