

PROJECT WRITE-UP: Personal Expense Tracker

Problem Statement

Many individuals struggle to track their monthly spending and stay within a budget. Without a systematic record of expenses, it becomes difficult to understand how much money has been spent, where it was spent, and whether the monthly budget is being exceeded. This project addresses the need for a simple tool that helps users record expenses, monitor spending, and stay financially disciplined.

Approach

The solution was designed as a command-line Python application that allows users to manage expenses interactively.

The program uses a list to store expenses during runtime, and a CSV file to persist data between sessions.

The design focuses on user simplicity and modularity by dividing the functionality into separate functions:

- Add new expenses
- View existing expenses
- Set and track a monthly budget
- Save all expenses to a file
- Load saved expenses automatically when the program starts

Input validation, CSV storage, and menu-driven navigation form the backbone of the program.

Summary of the Solution

The final application provides a complete workflow for personal expense tracking.

Users can:

1. Enter their monthly budget and monitor spending against it.

2. Add expenses by specifying category, amount, and description.

3. View all recorded expenses in a readable format.

4. Save expenses to a CSV file to retain history and reload it on the next run.

5. Exit safely while ensuring data persists.

The system calculates total spending automatically and warns the user if expenses exceed the set monthly budget.

The program loads previously saved data when launched, allowing users to continue logging expenses without losing progress.

This project demonstrates file handling, function-based programming, conditional logic, list manipulation, and user interaction in Python.

It serves as a foundational financial tool and can be enhanced further with features like category analysis, monthly resets, or graphical reports.