Personal Expense Tracker

Coming up with a personal bookkeeping program by using Python.

Project Overview

This is a personal bookkeeping program developed using Python. It demonstrates the application of Object-Oriented Programming (OOP), file I/O, and Generators to create a full-featured system for recording, viewing, querying, and persisting personal financial data.

Code Features

1. Object-Oriented Design (OOP)

- **Includes distinct classes** for single transaction, collection/management, category maintenance, and date validation, resulting in a clear and extensible structure.

2. Data Management and Persistence

- **Reads from and writes to a text file for record-keeping,** ensuring all records and the current balance are persisted across sessions.
- **Implements try-except blocks** to handle potential errors during execution.

3. Category System and Query

- **Uses recursion and a generator** to efficiently traverse the nested category list in a flattened structure, particularly for finding all related subcategories during a query.
- **Utilizes recursion** to validate if a user-input category exists within the multi-level list.

4. Record Operations

- **Supports core commands** like add, view, delete, and exit (save).
- Ensures input dates are logically valid by checking month ranges, day limits, and handling leap years correctly.

Languagues

- Python3.7