SmartBudget: A Household Budget Management Package

SmartBudget is a Python package designed to help users record, organize, and analyze their household financial activities. The system provides tools for adding income and expense records, saving and loading data, and generating useful financial summaries and insights. SmartBudget aims to simplify daily budgeting tasks through a modular, object-oriented structure.

The package consists of three sub-packages:

1. **core** – defines financial record classes using inheritance.

   o   RecordBase: the parent class

   o   Income and Expense: subclasses with additional attributes

2. **analysis** – provides summary calculations and insights.

   o   Total income, total expenses, net balance

   o   Detailed lists of incomes/expenses

   o   Ranking of top spending and earning items

3. **io** – manages JSON file operations and file utilities.

   o   Save/load records as JSON

   o   List files and delete files in a dedicated directory

SmartBudget provides a menu-driven console interface (main.py) that allows users to interact with the system easily. The package demonstrates object-oriented design, modular programming, and practical data management.