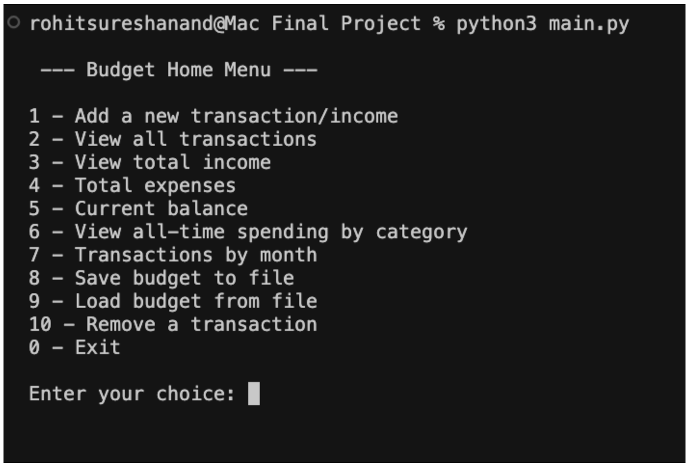
Personal Budget Tracker

About this Project

The “Personal Budget Tracker” is a CLI-based Python application that helps users manage and analyze their finances. Users are able to add both income and expense-related transactions, view summaries and statistics, and filter transactions by month. In order to make this program more versatile and real-world affective, we have also provisioned for the ability to save and load a specific user’s budget data (which encapsulates their transactions) to/from a JSON file, which acts like a saved profile.

Steps to run the program

1. First, ensure Python 3 is installed on your PC
2. Next, open your terminal or command prompt
3. Then, navigate to the folder that contains the project files
4. Finally, run the following command: "python main.py” (Windows) or “python3 main.py” (MacOS)
5. At this point, the program home menu will populate in the command line interface



```
○ rohitsureshanand@Mac Final Project % python3 main.py

  --- Budget Home Menu ---

 1 - Add a new transaction/income
 2 - View all transactions
 3 - View total income
 4 - Total expenses
 5 - Current balance
 6 - View all-time spending by category
 7 - Transactions by month
 8 - Save budget to file
 9 - Load budget from file
 10 - Remove a transaction
 0 - Exit

 Enter your choice: █
```

How to interpret the output

- After following the above steps, you will see a menu of options.
- Enter a numerical value b/w 1-10 to select the relevant option
- Below is some helpful information to assist your understanding of the program features:
    - **Add Transaction**: Enter the date (DD-MM-YYYY), category (ex: Food), amount (positive for income, negative for expense), and the description/memo
    - **Remove a Transaction**: You'll be shown a list with index numbers. Enter the index (not the UID!) of the transaction to delete it
    - **View Totals**: You can view total income, expenses, or your current balance
    - **Filter by Month**: View transactions filtered by a specified month
    - **Save/Load**: You can save your session to a JSON file and load it later. This retains all your transaction history as serves as a user profile.

**Note: Negative numbers represent expenses. Positive numbers represent income or refunds.*

Sources Used

- This project was designed and implemented using a combination of course notes, examples, and prior programming experience
- We used Python's built in JSON module documentation as well as YouTube to understand how to read/write JSON files.
- Additionally, if we ran into small issues on how to proceed with implementation or design, we would consult the vast repository of Python YouTube tutorials and, occasionally, websites like GeeksforGeeks, and Stack Overflow. That being said, while those resources may have provided insight on how to proceed, all functionalities of our program and its entire codebase was written by our group.