**Personal Expenses and Income Tracker**

The Personal Expenses and Income Tracker is a program that helps you keep track of your personal expenses and income. It allows you to add transactions, view transactions, generate reports, and manage your financial data.

When you run the program, you will see a menu with three options:

1. **Log in**: If you already have an account, select this option to log in. You will be prompted to enter your username. If your username exists, the program will load your transaction data. If not, you will be prompted to create a new account.

2. **Create a new account**: If you don't have an account yet, select this option to create a new one. You will be prompted to enter a unique username. The program will create a new account for you and start with an empty transaction list.

3. **Exit**: Choose this option to exit the program.

Once you have logged in or created a new account, you will see a set of options specific to your account:

1. **Add Transaction**: Select this option to add a new transaction. You will be prompted to enter the transaction amount, category, and date. The transaction will be recorded in your account's transaction list.

2. **View Transactions**: Choose this option to view your transactions. You can choose to sort the transactions by date or category. The transactions will be displayed in the chosen order, showing the amount, category, and date of each transaction.

3. **Generate Reports**: Select this option to generate reports based on your transactions. The program will provide you with the following information:

- Total expenses: The sum of all expenses (transactions with negative amounts) in your account.

- Total income: The sum of all income (transactions with positive amounts) in your account.

- Spending by category: The total amount spent in each category.

- Transactions in each category: The transactions grouped by category, showing the amount and date of each transaction.

- Average transaction value by category: The average amount of transactions in each category.

4. **Log out**: Choose this option to log out of your account. Your transaction data will be saved, and you will be returned to the main menu.

Remember to log out of your account when you're done using the program to ensure your data is saved properly.

That's it! The Personal Expenses and Income Tracker provides a convenient way for you to manage your financial transactions and gain insights into your spending habits. Enjoy keeping track of your expenses and income!