1. Project Description

The Bill Splitter App is a desktop application developed to assist users in efficiently dividing expenses among participants. Built with PyQt5 for a seamless graphical interface and SQLite3 for reliable data storage, the app provides an intuitive experience for managing group expenses, tracking individual contributions, and ensuring accurate bill splitting.

2. Objectives

- Simplify the process of splitting bills among multiple participants.
- Enable efficient tracking and categorization of expenses.
- Ensure accurate calculation of each participant's share based on total expenses.
- Provide an easy-to-navigate and user-friendly interface.

3. Features

- Participant Management: Allows adding, editing, and tracking of participants.
- **Expense Tracking**: Supports inputting and categorizing expenses, specifying the amount, payer, and all involved participants.
- **Automatic Bill Splitting**: Calculates each participant's share based on their involvement in the expenses.
- Database Storage: Utilizes SQLite3 for secure and persistent data storage.
- User Interface: Built with PyQt5 for an intuitive and responsive UI.

4. Overview

Launching the App

Run the app by executing this .bat file:

```
@echo on
REM Go to your drive (if you are not running the bat file in the
same drive) ex: E:
E:
REM Move to project directory
cd "E:\path\to\project\bill-spliter"

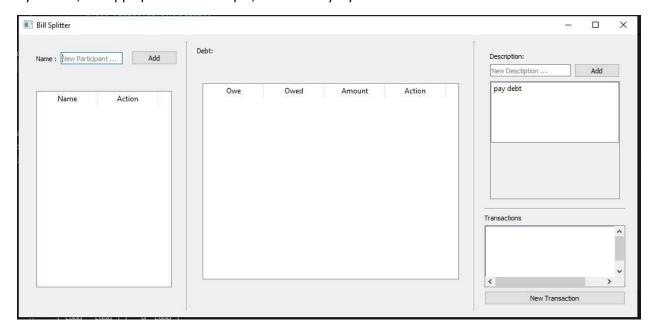
REM Activate the virtual environment
call venv\Scripts\activate

REM Run the Python script
python src/main.py

REM Deactivate the virtual environment
deactivate
```

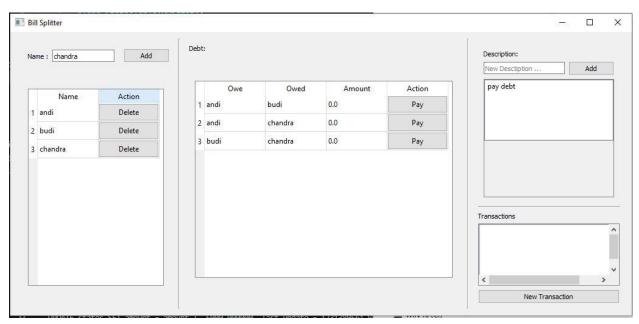
Main View

By default, the app opens with a simple, user-friendly layout:



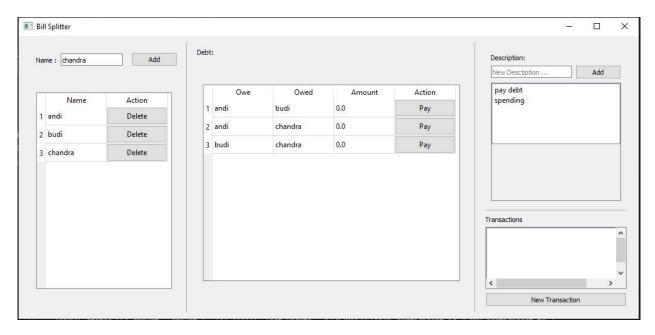
Adding Participants

For example, we add three participants:



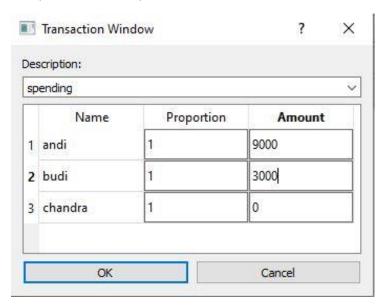
Adding Spending Descriptions

Add a description for the type of expense:



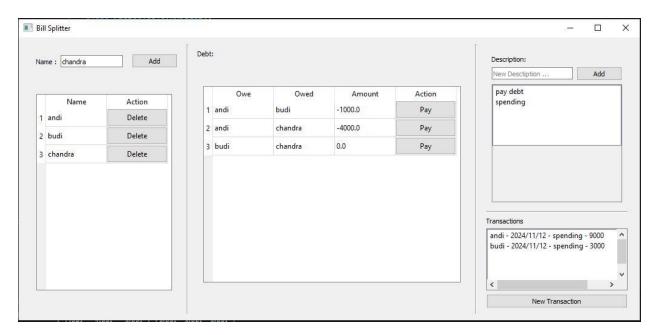
Entering a New Transaction

Add a new transaction. This opens a window to enter details. Suppose Andi and Budi pay 9000 and 3000, respectively, and want to split the bill evenly.



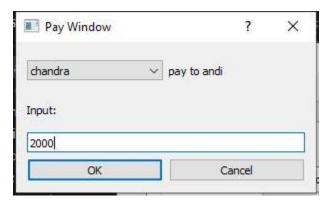
Updated View After Transaction

The main view updates to show the new transaction, displaying each participant's balance and debt automatically:

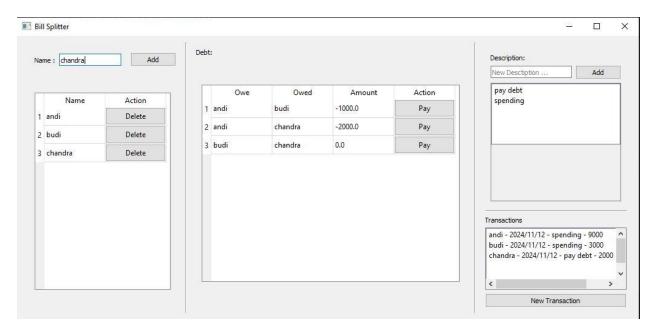


Making a Payment

If Chandra wants to pay Andi 2000, they can click the "Pay" button, which opens this window:



After clicking OK, the balances update accordingly:



Removing a Participant

To delete a participant, click the delete button. The app retains only active participants' information:

