

# User Manual

Group28

## 01 Configuration&Execution

### Program Sync:

<https://github.com/NiHaoWoJiaoYYC/EBU6304-Group28.git>

Due to we develop this program by different platform(MacOS&Win), we recommend execute this program on MacOS. Some function will have bug on windows.

### Frontend:

src/main/java/org/bupt/persosnalfinance/PersonalFinanceAppLauncher.java

### Backend:

1.src/main/java/org/bupt/persosnalfinance/PersosnalFinanceApplication.java

#### 2.Maven

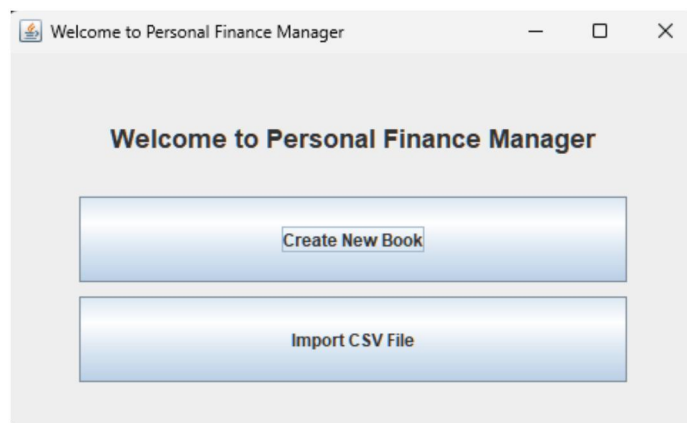
MVN Backend Execution

```
mvn spring-boot:run
```



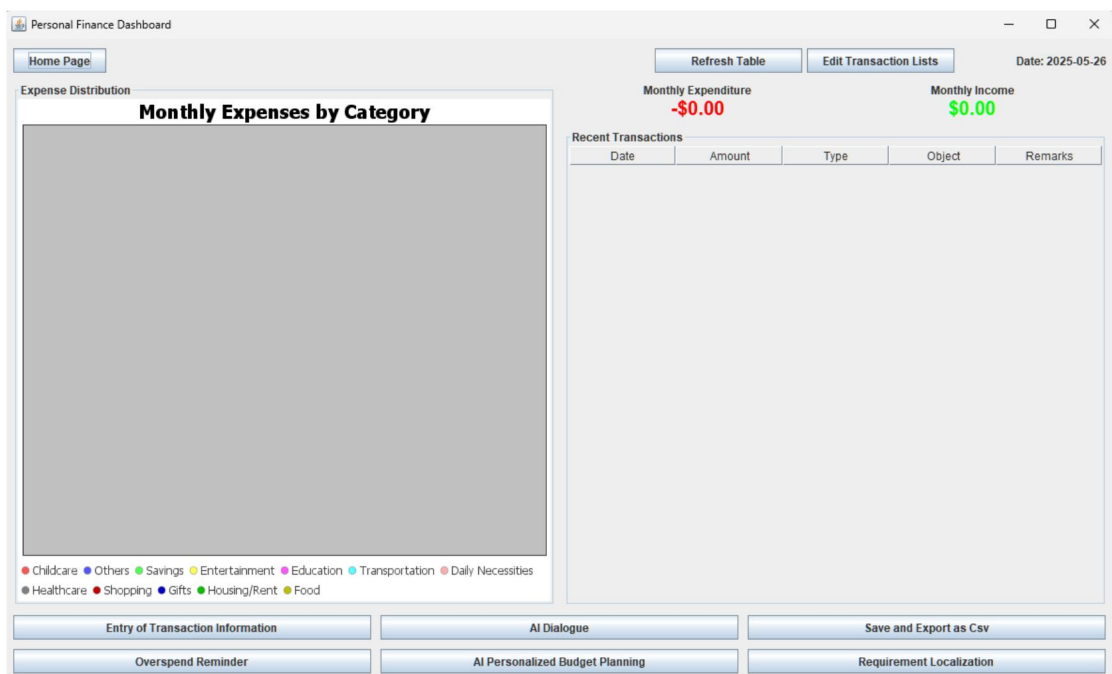
## 02 Transaction Records Uploading

### 1.Homepage



**First**, User should **import CSV** file or **Create New Book** here.

If User create a new book, it will jump to **dashboard** and create a blank book to modify.



All the data will be loaded into json to make it sustainable

Under src/main/data

## 2.Import CSV File

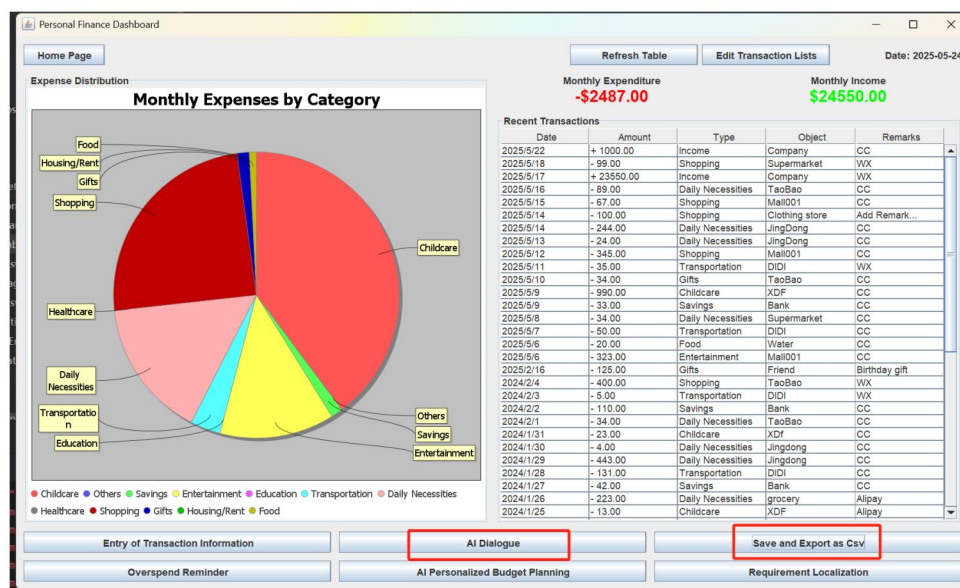
The 'Import CSV' dialog box contains the following elements:

- Choose Function:** A dropdown menu currently set to 'Personal finance Advice'. An annotation box labeled 'Function Selection' points to this dropdown.
- Choose Time Unit:** A dropdown menu currently set to 'Day'.
- Choose CSV File:** A button to select a CSV file. An annotation box labeled 'CSV Selection' points to this button.
- Columns Selection:** A list of columns: 'date', 'amount', 'type', 'object', 'remarks'. An annotation box labeled 'Columns Selection' points to this list.
- Transaction--New.csv:** The name of the selected CSV file.
- Preview** and **Submit to Backend** buttons at the bottom.

Users can upload their CSV file here and select columns **(these five columns are must to analysis, any absence of these columns will lead to warnings)**. If columns didn't meet the need of functions it will warning too.

User can click **homepage button** in dashboard to upload different .csv. And transaction records can be classified by AI into 13 categories.

## 3.DashBoard



Here' s an entry of 7 functions here. It' s provide users with pie chart and records list to view.

## 4.Add & Modification Records

The image illustrates the process of adding and modifying transaction records. It shows the 'Transaction information > Manual Entry' form with fields for Transaction date, Transaction amount, Transaction type, Transaction object, and Remark. A 'Fill in transaction information' annotation points to these fields. Below the form are 'cancel', 'save', and 'View Existing Transactions' buttons. A 'Click to save the transactions' annotation points to the 'save' button, and a 'Click to view transaction information' annotation points to the 'View Existing Transactions' button. To the right, two error dialog boxes are shown: 'Date Error' (Invalid date format. Please use yyyy/MM/dd.) and 'Amount Error' (Invalid amount. Please enter a non-negative number.). A 'Data validation' annotation points to these error messages. Below the form, the 'Transaction Information' list view is shown, displaying a table of transactions with columns: Number, Date, Amount, Type, Object, and Remarks. At the bottom of this list are 'Edit', 'Delete', and 'Back' buttons. An annotation states: 'On the transaction information page, users can perform editing and deletion operations.'

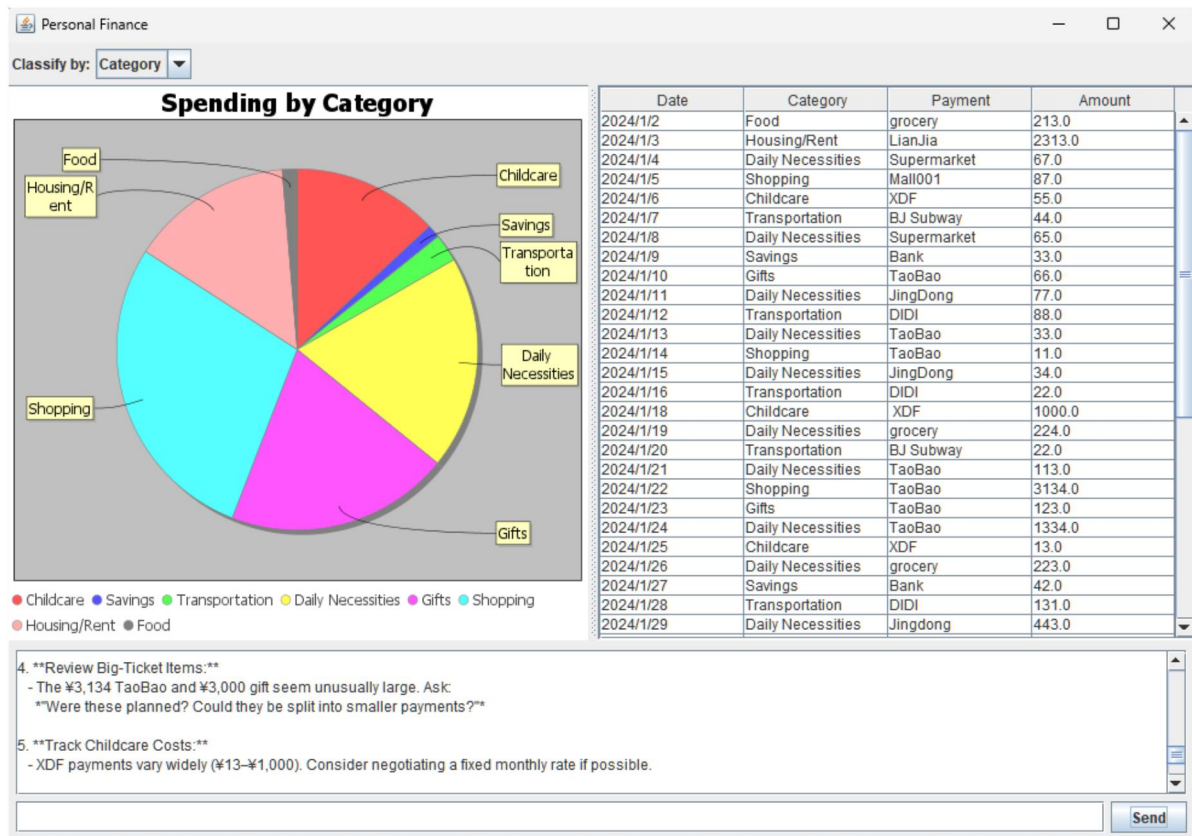
Number	Date	Amount	Type	Object	Remarks
1	2025/5/22	1000.0	Income	Company	CC
2	2025/5/22	1000.0	Income	Company	CC
3	2025/5/18	99.0	Shopping	Supermarket	WX
4	2025/5/18	99.0	Shopping	Supermarket	WX
5	2025/5/17	23550.0	Income	Company	WX
6	2025/5/17	23550.0	Income	Company	WX
7	2025/5/16	89.0	Daily Necessities	TaoBao	CC
8	2025/5/16	89.0	Daily Necessities	TaoBao	CC
9	2025/5/15	67.0	Shopping	Mall001	CC
10	2025/5/15	67.0	Shopping	Mall001	CC
11	2025/5/14	100.0	Shopping	Clothing store	Add Remark...
12	2025/5/14	244.0	Daily Necessities	JingDong	CC
13	2025/5/14	100.0	Shopping	Clothing store	Add Remark...
14	2025/5/14	244.0	Daily Necessities	JingDong	CC
15	2025/5/13	24.0	Daily Necessities	JingDong	CC
16	2025/5/13	24.0	Daily Necessities	JingDong	CC
17	2025/5/12	345.0	Shopping	Mall001	CC
18	2025/5/12	345.0	Shopping	Mall001	CC
19	2025/5/11	35.0	Transportation	DIDI	WX

By clicking the “Entry of Transaction Information” ,User can add basic transaction information here. Then save and view.

By clicking the button “ Edit Transaction List” on the top of the panel, user can edit the content of records and delete the records.

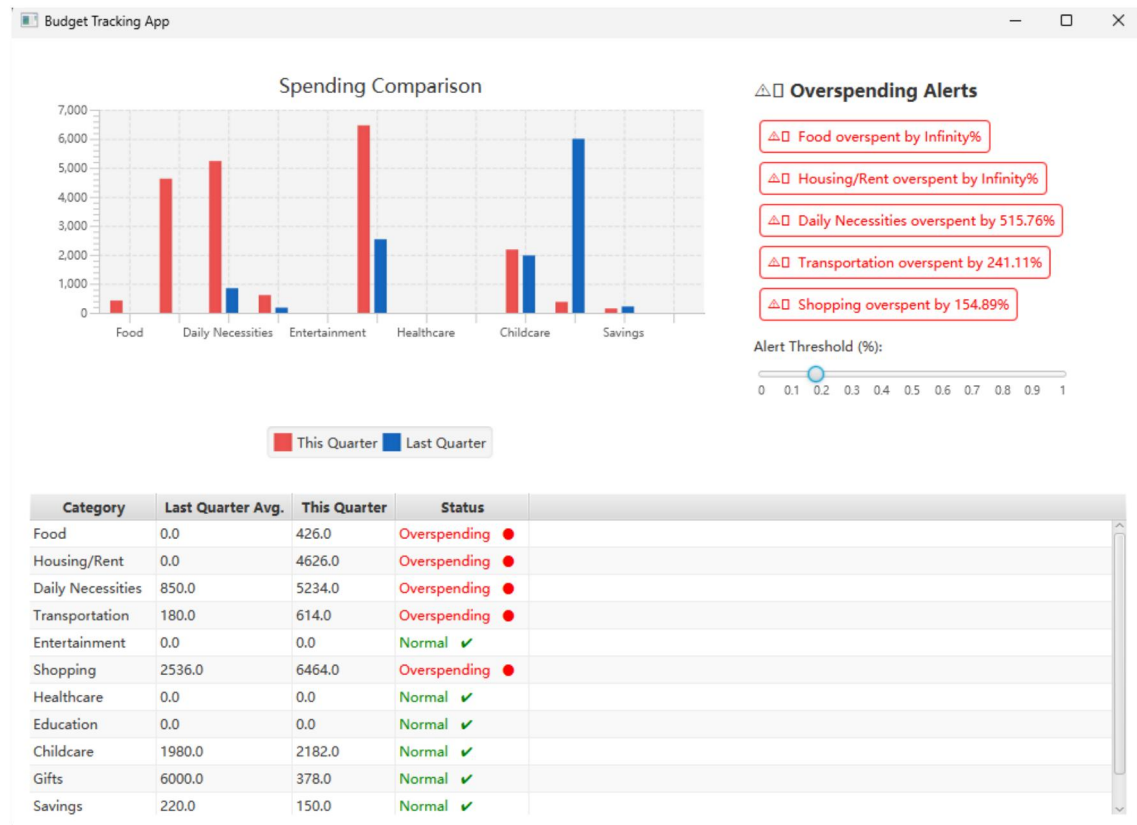
# 03 Finance Management

## 1. AI Dialogue



Firstly, user can view the data through different columns to classify the records. Second, user can ask the personal finance agent for advice,click send to ask whatever you want (wait for seconds for app to connect llm api)

## 2.OverSpend Reminder



User can access the different categories alerts here by comparing the transaction information this quarter and last quarter. Users can view different types expenditure's status (Overspending/normal) and setting different alert thresholds by dragging the button.

### 3.AI Personalized Budget Planning

AI Personalized Budget Planning

User Information

Occupation:

Disposable Income:

City:

Number of Elderly to Support:

0

Number of Children to Support:

0

Have a Partner:

☐

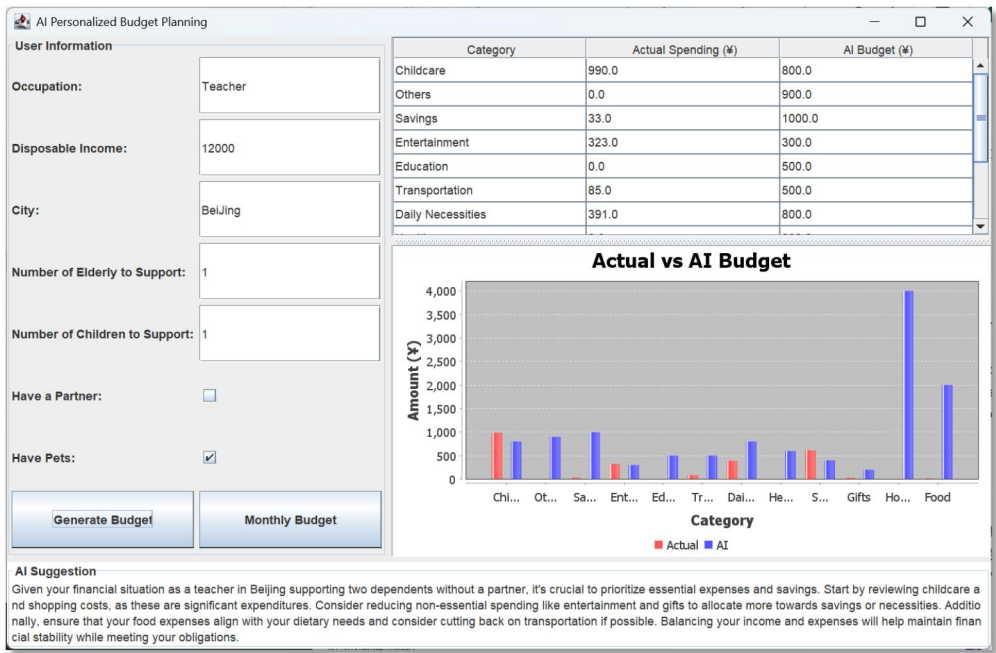
Have Pets:

☐

Generate Budget

Monthly Budget

AI Suggestion



## 1. User Information Entry

Fill in 'Occupation' , 'Disposable Income' , 'City' , 'Number of Elderly to Support' , "Number of Children to Support" , 'Have a Partner' , and " Have Pets " . AI generates a personalised budget based on user information and multi-destination spending history (Generate Budget).

Call BudgetAIService, based on the above user information and historical consumption data, automatically generates a recommended monthly budget for 12 categories, and at the same time displays a chart comparing this month's actual expenditure with the AI budget.

## 2.Monthly Budget

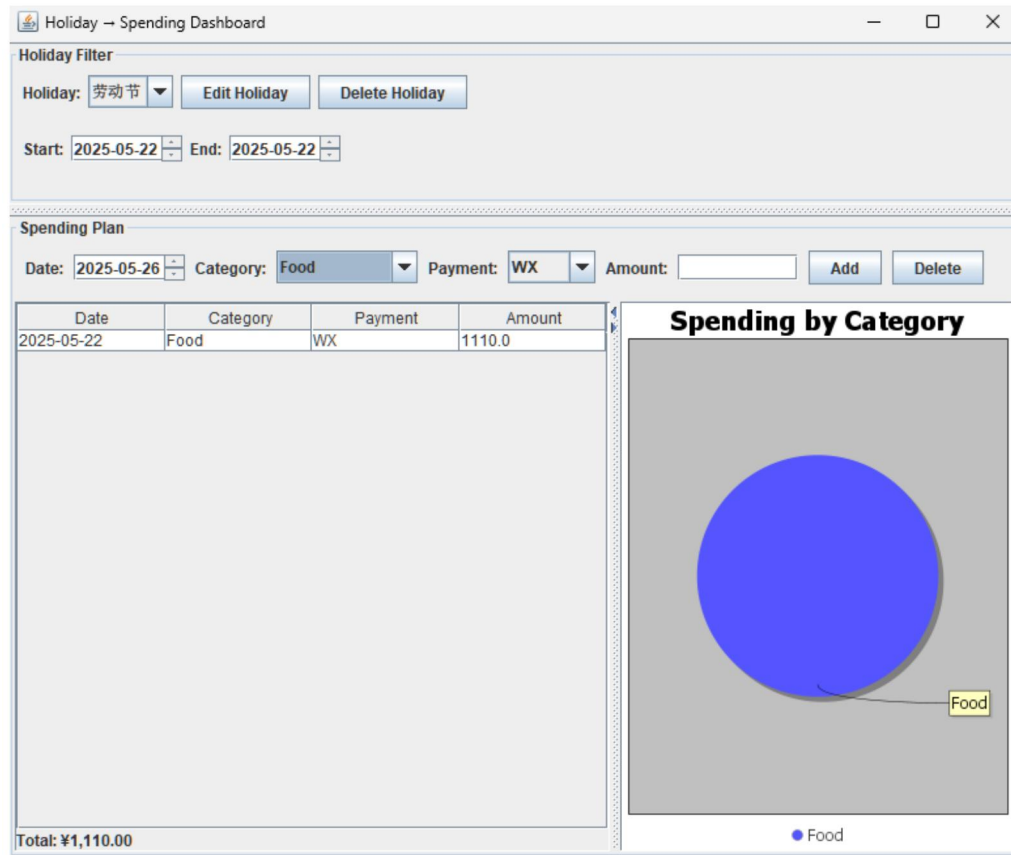
A separate window pops up, loading and displaying the disposable income and various categories of budget and actual expenditure generated in the previous step and saved in current\_budget.json. Support directly in the form to modify the 'disposable income' and any category of the budget, after modification, the system will automatically adjust the proportion of other categories of the budget and saved to JSON.

## 3.AI Suggestion

According to the actual expenditure and user information of this month, call the AI service to output a text suggestion to help users balance income and expenditure and optimise expenses.



## 4. Localization



### Page UI Overview:

#### 1. Top Section: Holiday List

- Displays statutory holidays fetched via API interfaces
- Allows users to create custom personal holidays with customizable names and date ranges
- Supports editing and deletion for all holiday entries

#### 2. Bottom Section: Split-Pane Layout

##### [Left Panel] Budget Planning

- Enables creation of multiple holiday spending budgets
- Supports adding/removing expense items (e.g., dining, transportation, accommodation)

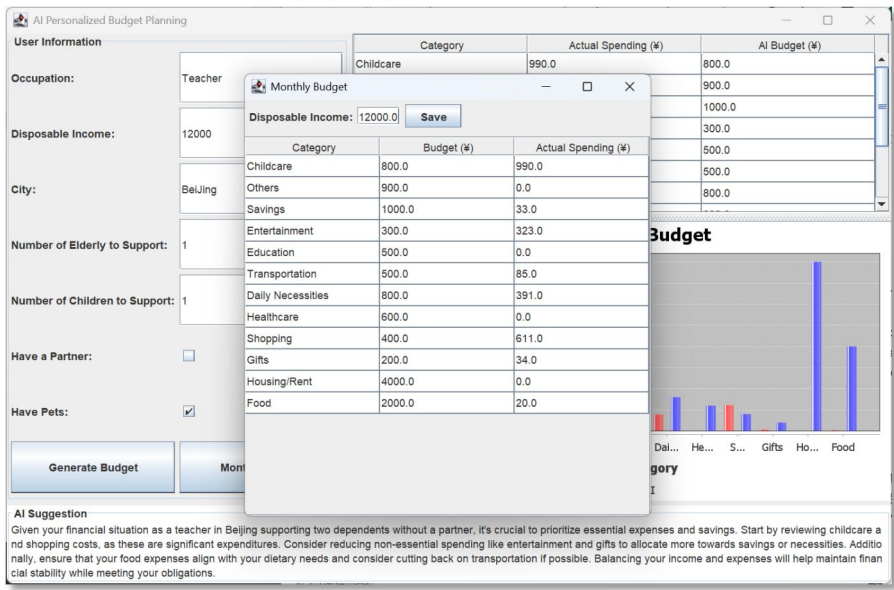
- Implements automatic persistence via localStorage to ensure long-term data retention

[Right Panel] Data Visualization

- Generates dynamic pie charts reflecting budget allocations
- Visually represents expense category proportions through color-coded segments
- Supports filtering specific expense categories by clicking on chart legends

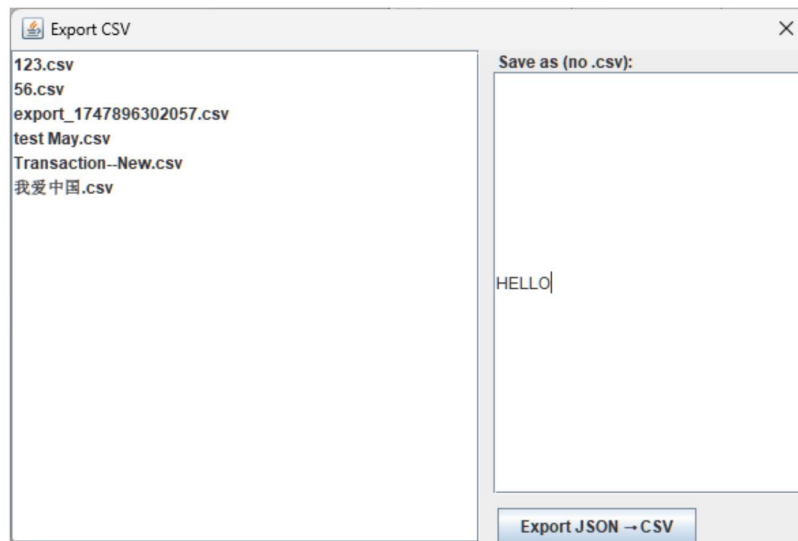
# 04 Records & Budget Saving

## 1. Budget



User can save the modified budget to json.

## 2. Export CSV



User can view all the CSV file here and edit the file name on the left side, then export the json as CSV. Please note that once you exit the backend the json will be covered by new csv uploaded next time,so save it when you finish.