### **Test Case**

#### 1. General

Test ID: TCG01(TCG: Test Case for General)

Test Name: Sign up an account

Action Steps:

(1) Navigate to the sign up page.

(2) Enter required information to sign up an account.

**Expected Outcome:** 

• Account is successfully created and a confirmation message is displayed.

Test ID: TCG02

Test Name: Sign in an account

Action Steps:

(1) Navigate to the sign in page.

(2) Enter a registered username and password.

(3) Click the 'Sign In' button.

Expected Outcome:

• The system validates the username and corresponding password. If the system accepts it, a confirmation message will be displayed and successfully sign in. And if not, the system will show an error for 'Invalid username or password'.

Test ID: TCG03

Test Name: Sign out an account

Action Steps:

(1) Navigate to the user sign out interface.

(2) Click the 'Sign Out' button.

**Expected Outcome:** 

• Sign out successfully and navigate to the sign in page.

# 2. Personal Expense

Test ID: TCP01(TCP: Test Case for Personal Expense)

Test Name: Create a personal expense

**Action Steps:** 

- (1) User navigates to the personal expense creation interface.
- (2) Enter necessary expense details and submit the form.

**Expected Outcome:** 

• Personal expense is successfully created and displayed.

Test ID: TCP02

Test Name: Add items to the personal expense

Action Steps:

- (1) In the personal expense interface, select to add a new item.
- (2) Enter necessary expense details and submit the form.

**Expected Outcome:** 

• The new item is successfully added to the personal expense and the expense overview is updated.

Test ID: TCP03

Test Name: Remove items from the personal expense

**Action Steps:** 

- (1) In the personal expense interface, select an existing expense item to remove.
- (2) Confirm the removal action.

**Expected Outcome:** 

• The selected expense item is removed and the expense overview is updated.

Test ID: TCP04

Test Name: Edit items on the personal expense

Action Steps:

- (1) In the personal expense interface, select an existing expense item to edit.
- (2) Modify the expense details and submit the form.

#### **Expected Outcome:**

• The details of the expense item is successfully modified and the expense overview is updated.

Test ID: TCP05

Test Name: Edit the personal budget

Action Steps:

(1) In the personal budget interface, modify the budget amount and submit the form.

#### **Expected Outcome:**

• The personal budget overview, including spent, remaining and budget, is updated successfully.

## 3. Group

Test ID: TCG01(TCG: Test Case for Group)

Test Name: Create a group

**Action Steps:** 

- (1) Navigate to the group creation interface.
- (2) Enter necessary group details and submit the form.

**Expected Outcome:** 

• The group is successfully created and displayed.

Test ID: TCG02

Test Name: Add items to the group expense

**Action Steps:** 

- (1) In the group expense interface, select to add a new item.
- (2) Enter necessary expense details and submit the form.

**Expected Outcome:** 

• The new item is successfully added to the group expense and displayed.

Test ID: TCG03

Test Name: Remove items from the group expense

Action Steps:

- (1) In the group expense interface, select an existing expense item to remove.
- (2) Confirm the removal action.

**Expected Outcome:** 

• The selected expense item is removed and the group expense is updated.

Test ID: TCG04

Test Name: Edit items on the group expense

**Action Steps:** 

(1) In the group expense interface, select an existing expense item to edit.

(2) Modify the expense details and submit the form.

**Expected Outcome:** 

• The details of the expense item is successfully modified and displayed.

Test ID: TCG05

Test Name: Invite group members via Email

Action Steps:

(1) In the group member invitation interface, enter the email and submit.

**Expected Outcome:** 

• The new member receives an invitation email with an API key.

Test ID: TCG06

Test Name: Confirm the invitation

Action Steps:

(1) In the join group interface, enter API key from the invitation email and submit.

**Expected Outcome:** 

• The new member joins the group successfully.

Test ID: TCG07

Test Name: Create bill split

Action Steps:

- (1) Navigate to the bill split creation interface within one certain group.
- (2) Enter the details of the bill and allocate amounts to each member.

**Expected Outcome:** 

• The bill split is successfully created and displayed.

Test ID: TCG08

Test Name: Delete the group

Action Steps:

(1) Select one certain group.

(2) Click the 'Delete Group' button.

# Expected Outcome:

• The selected group is deleted successfully and the group overview is updated.

# 4. Dashboard

Test ID: TCD01(TCD: Test Case for Dashboard)

Test Name: Display graphs

Action Steps:

(1) Navigate to the dashboard page.

(2) Select the required time period.

**Expected Outcome:** 

The four graphs, including 'Total Money Saved', 'Monthly Expense Distribution',
'Expense Categories' and 'Spending Trend', are displayed properly regarding the given time period.

### 5. UI

Test ID: TCI01(TCI: Test Case for UI)

Test Name: Resize the window

Action Steps:

- (3) Open the application in a web browser.
- (4) Resize the browser window to various sizes.

**Expected Outcome:** 

• The application's UI adapts and remains functional across different window sizes.

Test ID: TCI02

Test Name: Mobile view

Action Steps:

(1) Access the application on a mobile device or use a browser's mobile view feature.

**Expected Outcome:** 

• The application is also functional in the mobile view.

### 6. UX

Test ID: TCX01(TCX: Test Case for UX)

Test Name: Performance when switching pages

Action Steps:

(1) Navigate between different pages of the application.

**Expected Outcome:** 

• Pages load within a reasonable time and no noticeable delays.

Test ID: TCX02

Test Name: Performance when changing personal/group expense items

Action Steps:

(1) Change items in the personal/group expense interface.

**Expected Outcome:** 

 Changes are processed quickly and efficiently, within a reasonable time and no noticeable delays.