

# Bill Splitting System

## **User Manual**

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# 1. Overview

This software is designed to help people track their spending as well as split common spendings among friends. This application would record spending and share them with friends, check daily/weekly/monthly financial spending summary, and visualize those spending summaries accordingly.

## 2. System Requirement

- Available Operating Systems: Windows 10, Mac OS.
- The system should have installed Java JDK 14.
- Interaction with this software requires a keyboard, mouse, and a monitor
- The use of this software requires a stable Internet connection.

## 3. How to use the application

To use the application, you can either:

1. In the *Source Code* folder, find the LoginGUI.java under the `./BillSplittingSystem/gui/src/LoginGUI.java` and run the main function of LoginGUI.java.
2. Or, in the *Executable* folder, double click on the Jar file. If it cannot open directly by double click, try to choose the 'open with - Jar Launcher (default)'.

## Login Screen

The screenshot shows the login interface for the 'Bill Splitting System'. It features a title in a cursive font, two input fields for 'UserName/ Phone Number/ Account ID' and 'Password', and three buttons: 'Login', 'Sign Up', and 'Forget Password'. Red circles with letters 'a', 'b', and 'c' are placed over the 'Login', 'Sign Up', and 'Forget Password' buttons respectively. The 'Password' field contains masked characters '.....'.

### a. Login

1. Enter the username\*
2. Enter the password\*\*
3. Click the *Login* button.

\* Click the *Sign Up* button if you do not have an account

\*\* Click the *Forgot Password* button if you can't remember your password

This is an annotated version of the login screen. Red circles with numbers 1, 2, and 3 are placed over the input fields and the 'Login' button. Circle 1 is over the 'UserName/ Phone Number/ Account ID' field, circle 2 is over the 'Password' field, and circle 3 is over the 'Login' button. The 'Sign Up' and 'Forget Password' buttons are also visible.

### b. Sign Up

1. Click the *signup* button in the left corner of the login screen.

2. Enter the username, phone number, email, and password. The password should be at least 8 characters or numbers. The phone number should be 10 numbers.
3. Make sure that the email address entered is able to receive emails as resetting the password would require the same email. (If the email address does not exist and the user requests the verification code too frequently, the mail server may refuse any communications from our server.)
4. Enter the password again to ensure the user did not make a mistake while typing the password.
5. Click the *Register* button (registration failed may be due to duplicate username, phone number, and email address in the database. If it shows 'registration fail', please register it with alternative values).

The image shows a registration form with a light gray background. At the top left is a 'Back' button. Below it are five input fields with labels to their left: 'UserName\*', 'Phone Number\*', 'Email\*', 'Password\*', and 'Type Password Again\*'. The first field contains 'test123', the second '1231234567', and the third 'abc@case.edu'. The fourth and fifth fields contain masked passwords represented by dots. To the right of each of these four fields is a red circle with a white number inside: 1, 2, 3, and 4 respectively. At the bottom center is a large 'Register' button.

### c. Reset Password

1. Click the *Forget Password* button in the right corner of the login screen.
2. Enter the username to send the verification code
3. Click on the *Send Verification code* button
4. Once received the code in the email, enter the verification code
5. Enter the new password two times
6. Click on the *Reset password* button

[Back](#)

## Reset Password

Enter your username:  ②

[Send Verification code](#) ③

Enter the verification code:  ④

Enter your new password:  ⑤

Repeat your new password:  ⑥

[Reset Password](#)

## User Home

## Bill Splitting System

**Your Accounts:**

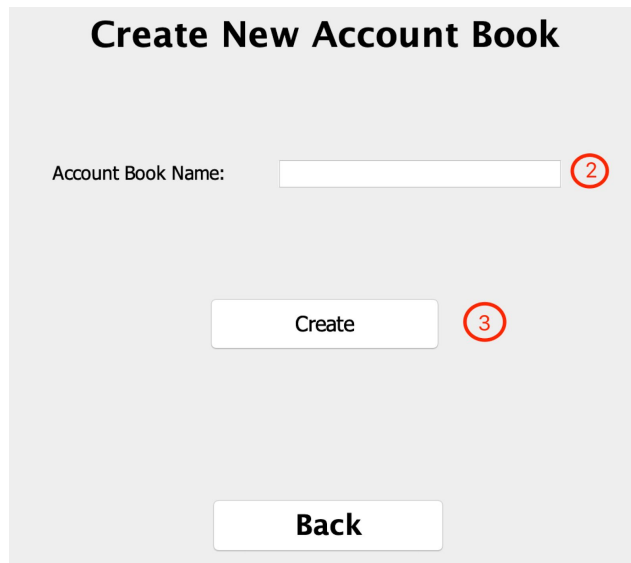
\*

[View the Book](#) ③ [Delete the Book](#) ②

[Create new Book](#) ①

### a. Create books

1. Click the Create new Book Button to create accounting books to store the financial activities
2. Enter Account book name
3. Click on the 'create' button to create



The screenshot shows a form titled "Create New Account Book". It contains a text input field labeled "Account Book Name:" with a red circle containing the number "2" next to it. Below the input field is a "Create" button with a red circle containing the number "3" next to it. At the bottom of the form is a "Back" button.

### b. Delete books

1. Choose the accounting books you want to delete in the bar
2. Click the Delete the Book button to delete the book.



The screenshot shows a web interface titled "Bill Splitting System". Under the heading "Your Accounts:", there is a dropdown menu showing "test" with a red circle containing the number "1" next to it. Below the dropdown are two buttons: "View the Book" and "Delete the Book", with a red circle containing the number "2" next to the "Delete the Book" button. At the bottom of the interface is a "Create new Book" button.

### c. View books

1. Choose the accounting books you want to check in the bar
2. Click the View the Books button and you will be navigated to the Accounting Book Screen

**Bill Splitting System**

**Your Accounts:**

test ⌵ ①

View the Book ② Delete the Book

Create new Book

## Accounting Book Screen

1. Add account members by Clicking the Add new Member Button. Enter the name of the user (his/her username) you want to add and then click the Add Button.
2. Delete account members by Choosing the members in the bar and clicking the Delete the Member Button.
3. View all financial activities by clicking the View all Activities Button and you will be navigated to the Activities History View Screen.
4. Add new Activities by clicking the Add new Activity Button and users will be navigated to the Add Activities Screen.
5. Delete Activities by clicking the Delete Activity Button and users will be navigated to the Delete Activities Screen.



The screenshot shows a window titled "Bill Splitting System". The main heading is "Bill Splitting System" in a stylized font. Below it, the section "Account Members:" contains a dropdown menu with an asterisk and a "Delete the Member" button (annotated with a red circle 2). Below these is an "Add new Member" button (annotated with a red circle 1). The "Activities:" section contains four buttons: "Add new Activity" (annotated with a red circle 4), "View Activity Spendings", "View All Activities" (annotated with a red circle 3), and "Delete Activity" (annotated with a red circle 5).

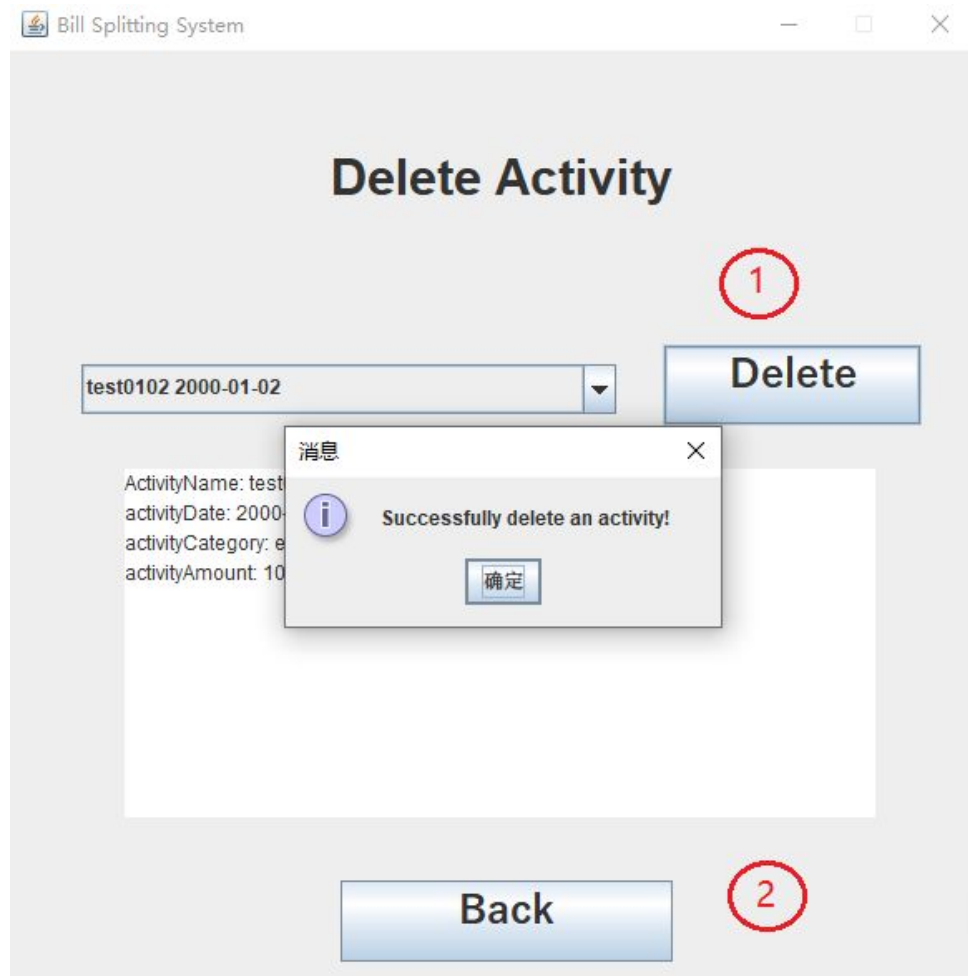
#### a. Add Activity Screen

1. Enter the name, date, cost, category, and participants. The date should in format '2000-01-01' and the name should be non-empty.
2. Click *Add* button after finishing up
3. Click Back to go back to the accounting book screen after getting the prompt of adding success.

The screenshot shows a software window titled "Bill Splitting System". The main content area is titled "Add Activity". At the top left is a "Back" button, which is circled in red with the number "4". Below the title, there are two input fields: "Activity Name:\*" containing "test0102" and "Activity Date:\*" containing "2000-01-02". Below these are partially visible labels "Activity A" and "Activity Ca" next to input fields. A modal dialog box titled "消息" (Message) is centered on the screen, displaying an information icon and the text "Successfully add an activity!". It has a "确定" (Confirm) button, which is circled in red with the number "3". At the bottom of the main form is a "Participant:" label with a dropdown menu showing an asterisk and an "add" button. Below the entire form is a large "Add" button, circled in red with the number "2".

#### b. Delete Activity Screen

1. Choose the activity you want to delete in the bar and click the delete button.
2. Click Back to go back to the accounting book screen after getting the prompt of deleting success.



## Spendings

1. To check spendings in different time periods, click on the 'View Activity Spending' button.
2. To check yearly spendings, leave 'month' and 'date' empty, and a visual graph will be displayed when the 'Show' button is clicked.
3. To check monthly spendings, choose a 'year' and 'month' and leave 'date' empty.
4. Lastly, to check daily spendings, all three fields must be filled.
5. By clicking the 'back' button, the user will be directed back to the account book page.

## View Activity Spendings

**Year:**

2020

**Month:**

\*

**Date:**

\*

**Show**

2

\* Choose month, year, and date to show daily activity spendings

\* Choose month and year to show monthly activity spendings

\* Choose only year to show yearly activity spendings

**Back**

## View Activity Spendings

**Year:**

2020

**Month:**

12

**Date:**

\*

**Show**

3

\* Choose month, year, and date to show daily activity spendings

\* Choose month and year to show monthly activity spendings

\* Choose only year to show yearly activity spendings

**Back**

## View Activity Spendings

**Year:**

2020 ▾

**Month:**

12 ▾

**Date:**

4 ▾

**Show**

4

\* Choose month, year, and date to show daily activity spendings

\* Choose month and year to show monthly activity spendings

\* Choose only year to show yearly activity spendings

**Back**

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