Implemented User Stories:

Create an account and login - Isaiah
Pre-selected library of books - Sathira
Comment on book - Vince
Citation - Sathira
Searching for a book - Jet
Ratings and reviews - Abbey

Manual Test

1. Run the LibraryUI.java from the GUI package under src.
2. Enter MySQL password in the terminal window.
3. Click on the account icon highlighted below.

Problem Report 1
Reported by: Vince.
Component: WelcomePanel and RegisterFrame
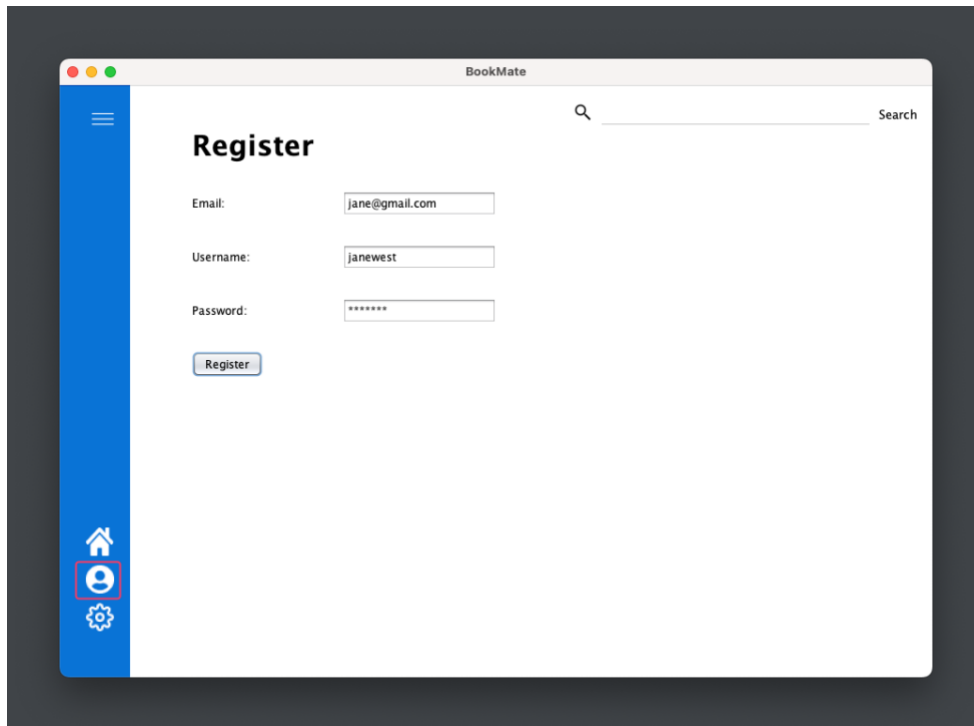**Version/Release:** 2, March 10, 2023.
Report type: Design issue
Severity: Low
Problem Description 1: Registering with credentials that already exists in the database does nothing. This is a problem because user's do not know whether the registration is successful or not.

Test Instructions:

1. Click on the profile icon as shown below. Then type
   a. jane@gmail.com : for the email
   b. Janewest : for the username
   c. her5676 : for the password
2. Then click register.

Problem Report 2
Reported by: Vince.
Component: WelcomePanel and RegisterFrame
Version/Release: 2, March 10, 2023.
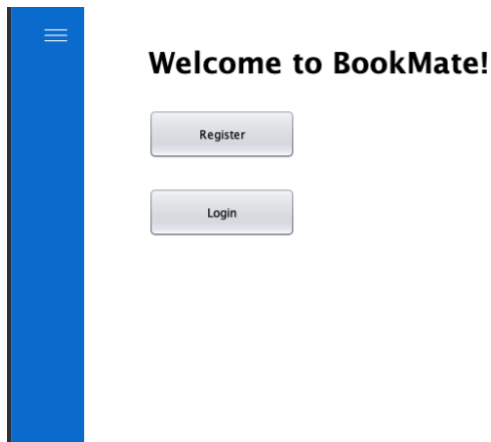Report type: Design issue
Severity: Low
Problem Description 2: After logging in to an account and when the Profile page is showing there is no dedicated button to log out or sign out of the account. This maybe an issue if there is another user that wants to log in on the same machine.

Test Instruction:

1. Register with a new account that is not in the database or log in with your account.
2. Looking at the current page, which is the Profile page, there is no way to sign out.
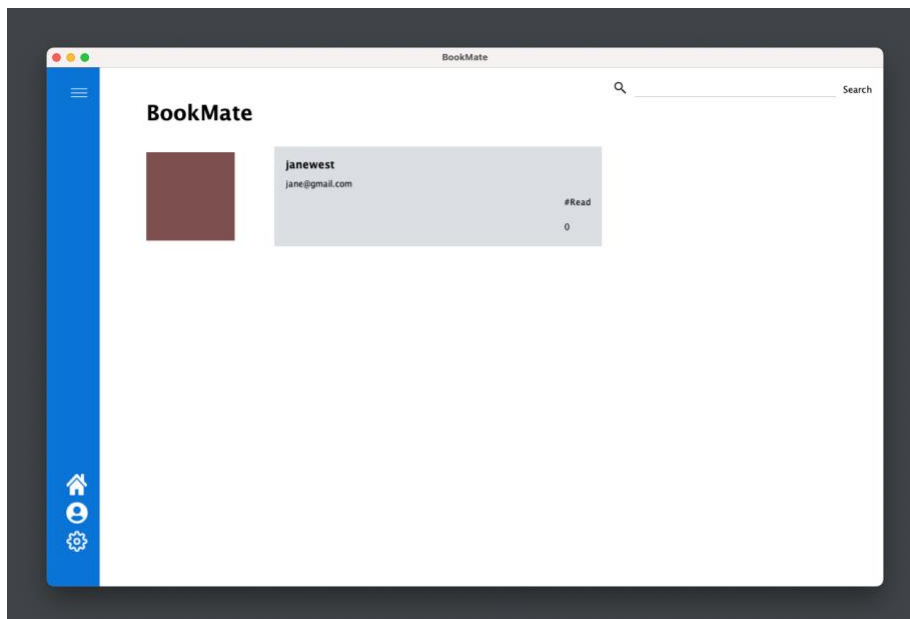
For logging in first go to Profile page-> click log in

Now you can type the following.

- Username: janewest
- Password: her5676

Click 'register' and the page should redirect to the Profile page that displays the username and the email.

See that there's no way to sign-out other than to restart the program.

Other cases:

- There is also no way to upload a profile photo and every user is left with the default as shown above.

Problem Report 3
Reported by: Vince.

Component: WelcomePanel and RegisterFrame
Version/Release: 2, March 10, 2023.
Report type: Design issue
Severity: Low
Problem Description 3: Logging in with an unknown account is not addressed by the application. This is an issue as the user does not know if the app is not working as intended.

Test Instructions:

Steps are the same as Problem Description 2, but instead typing credentials, username->Gabriel and password -> 12345 does nothing.

Login

Username: gabriel

Password: *****

[Login]

Suggested Fix For WelcomePanel and RegisterFrame:

Problem Description #	Problem Description	Suggestions
1	Registering with credentials that already exists in the database does nothing.	Maybe a prompt to the user that username or email already exists.
2	There is no way to sign out or register for a new Account.	A sign out button or clicking an already existing button
3	Logging in with credentials not that is not in the database does nothing.	A prompt to the user that username or password is incorrect. Or does not exists.

Code review

- Domain Object: User
- Logic GoogleJSON
- GUI: RegisterFrame, Template, WelcomePanel

Problem Report 1:
Reported by: Vince
Date reported: March 27, 2023
Component name: User.java
Release number: 2
Report type: Code smalls
Problem description: Lazy class as it is not currently being used by any component.
 For example

```
private ArrayList<User> followerList;
private ArrayList<Book> favouritesList;
```

Does not serve any use in this release / not integrated to the GUI .
Suggested fix: Integrate methods from logic and database classes or remove them.

Problem Report 2:
Reported by: Vince
Date reported: March 27, 2023
Component name: GoogleJSON.java
Release number: 2
Report type: Coding smell
Problem description: This class has a few dead code methods that are mostly called by tests or nothing at all.

Here are the lists of these methods.
- getSearchIndex
- getSearchRating
- getSearchCoverURL

Suggested fix: Integrate methods from logic and database classes or remove them.

Problem Report 3:
Reported by: Vince
Date reported: March 27, 2023
Component name: GoogleJSON.java
Release number: 2
Report type: Coding smell
Problem description: Almost all the methods' inner code are surrounded by try-catch blocks that catches the same Exception.

Suggested fix: Create a custom exception to that can be thrown by the methods.

Problem Report 4:
Reported by: Vince
Date reported: March 27, 2023
Component name: RegisterFrame.java
Release number: 2
Report type: Code smell, Long Method
Problem description: The constructor of this class has more than ten lines of code although code fragments are explained.
Suggested fix: Since there are code fragments that can be grouped together such as "USERNAME_FIELD", "EMAIL_FIELD" and so on separate methods can be written them.

Problem Report 5:
Reported by: Vince
Date reported: March 27, 2023
Component name: WelcomePanel.java
Release number: 2
Report type: Code smell, Bloaters
Problem description: Like RegisterFrame.java there are some code fragments that are better to be extracted.

For example:

```java
private void showLoginPanel() throws SQLException{

removeAll();

revalidate();

repaint();

framePanel("Login");

JLabel usernameLabel = new JLabel("Username:");

JTextField usernameField = new JTextField(20);
```

```java
add(usernameLabel, "cell 0 1");

add(usernameField, "cell 1 1");

JLabel passwordLabel = new JLabel("Password:");

JPasswordField passwordField = new JPasswordField(20);

add(passwordLabel, "cell 0 2");

add(passwordField, "cell 1 2");

JButton loginButton = new JButton("Login");

add(loginButton, "cell 0 3");

parentTemplate = (Template)SwingUtilities.g

...
```

These three lines are meant to update the GUI every time this method is called before executing the lines that follow.
Suggested fix: Since there are code fragments that can be grouped together a fix is to create another method for them that includes comments for explanations.

Problem Report 6:
Reported by: Vince
Date reported: March 27, 2023
Component name: Template.java
Release number: 2
Report type: Code smell, Bloater
Problem description: The constructor of this class is very long. There are code fragments that could have been broken down into methods.

For example:

```
// HAMBURGER_MENU
URL hamURL = getClass().getResource("/Ham.png");
ImageIcon hamIcon = new ImageIcon(hamURL);
Image img = hamIcon.getImage();
img = img.getScaledInstance(40, 40, java.awt.Image.SCALE_SMOOTH);
hamIcon = new ImageIcon(img);
JButton hamburger = new JButton();
hamburger.setIcon(hamIcon);
hamburger.setPreferredSize(new Dimension(40, 40));
hamburger.setBorder(null);
hamburger.setContentAreaFilled(false);
sidebar.add(hamburger , "cell 0 0");
```

```
// SIDEBAR
Container container = getContentPane();
container.setLayout(new BorderLayout());
JPanel sidebar = new JPanel();
sidebar.setPreferredSize(new Dimension(75, 0));
sidebar.setBackground(Color.decode("#0B6BCC"));
sidebar.setLayout(new MigLayout("wrap", "[]", "[]push[]5[]5[]"));
sidebar.setBorder(BorderFactory.createEmptyBorder(0, 10, 30, 0));
container.add(sidebar, BorderLayout.WEST);
```

Suggested Fix: Create separate methods for them.

Problem Report 7:
Reported by: Vince
Date reported: March 27, 2023
Component name: Template.java
Release number: 2
Report type: Code smell, Bloater
Problem description: The searchBar() method of this class is a long method.
Suggested Fix: Break into few methods.