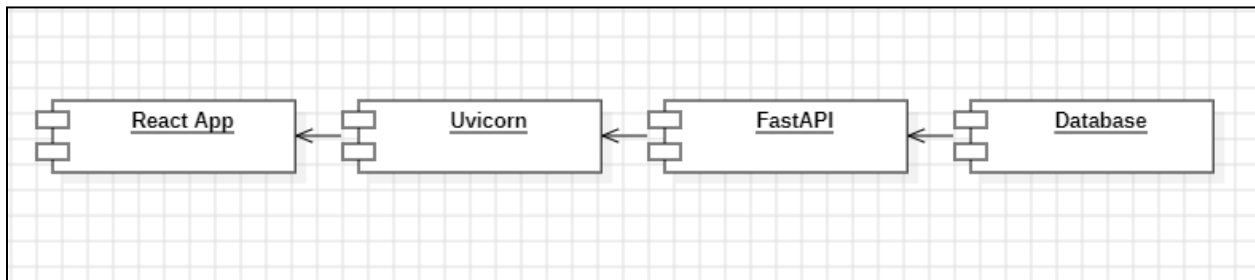# CptS 428/528 Software Security and Reverse Engineering
Fall 2023
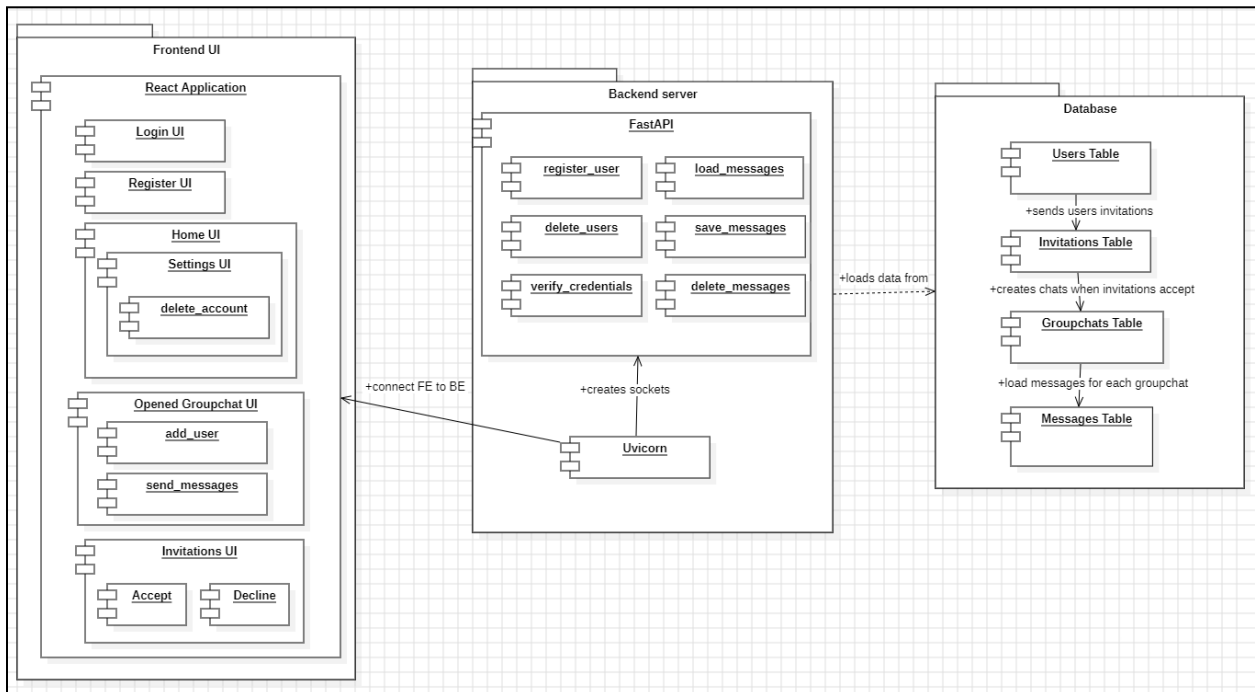# Team: Undergraduate ABFMJ-SecureDove
Project Deliverable 2

Team Members: Muhammad Ali Dzulfiqar, Flavio Alvarez Penate, Phearak Both Bunna, Jaysen Anderson, Mitchell Kolb

Architectural Design

Component-Level Design

Code Committed to the Repository

Repository Link:
https://github.com/AliDzulfiqar/CptS428-ABFMJ-SecureDove

Installation and step-by-step instructions to launch our SecureDove web application:

Getting repository from GitHub:

1. Go to our repository page at: https://github.com/AliDzulfiqar/CptS428-ABFMJ-SecureDove
2. Open terminal
3. Navigate through your terminal and type ***mkdir SecureDove*** to create a new folder.
4. Perform ***git clone https://github.com/AliDzulfiqar/CptS428-ABFMJ-SecureDove.git***

Note that we are using *React* for our application's *frontend* and *FastAPI* for our *backend*. This means that the steps shown below are necessary to launch our SecureDove application.

Setting up the Frontend:

5. *Node.js* is needed to run the frontend of our application:
   a. You can check by running this command in the terminal: ***node -v***
      - If it gives you the version number, it means it's already installed.
      - If it gives you an error message, it means you don't have it. You can install Node.js by going to https://nodejs.org/en/download and choose the right installer for our device.

Running the Backend:

6. Ensure that **Python** is installed since it will be needed to run our application.
   a. Make sure to add the *Python* path to the *System Variable PATH*.
7. In the "Backend" folder run ***pip install -r requirements.txt*** to install the packages used for this project.

Running the App:

8. After *Node.js*, *FastAPI* and *Uvicorn* is installed, we can run the following commands in the SecureDove project to start up the application:
   a. To start the *backend* of the application (FastAPI):
      i. Navigate to this folder: *securedove/backend*

ii. ***python -m uvicorn main:app --reload***

```
PROBLEMS    OUTPUT    DEBUG CONSOLE    TERMINAL    PORTS
PS C:\Users\phear\OneDrive\Desktop\SecureDove>  python -m uvicorn main:app --reload
```

fully connected to our 3rd party database hosting web service.

b. To start the *frontend* of the application (React):
   i. On a separate terminal, navigate to this folder: s*ecuredove/frontend*
   ii. ***npm install***
   iii. This app utilizes the usage of React Router DOM, to install React Router DOM, navigate to the frontend directory and ***run npm install react-router-dom.***
   iv. ***npm start***

```
PS C:\Users\phear\OneDrive\Desktop\SecureDove\securedove> npm install

up to date, audited 1522 packages in 5s

245 packages are looking for funding
  run `npm fund` for details

6 high severity vulnerabilities

To address all issues (including breaking changes), run:
  npm audit fix --force

Run `npm audit` for details.
PS C:\Users\phear\OneDrive\Desktop\SecureDove\securedove> npm start
```

● After carefully performing all the steps shown above, it will launch our SecureDove application on your default browser.

Screenshots:

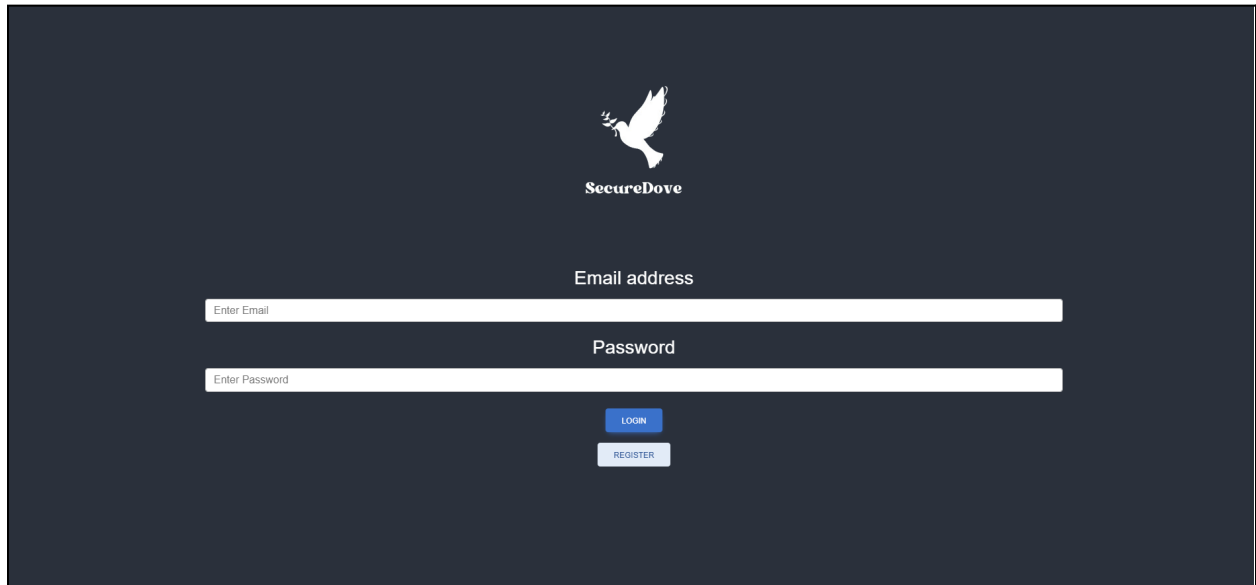Below are the screenshots for SecureDove's UI

Landing Page:

The landing page welcomes the users with the logo of our app logo and name for 3s and redirects the users to the login page.
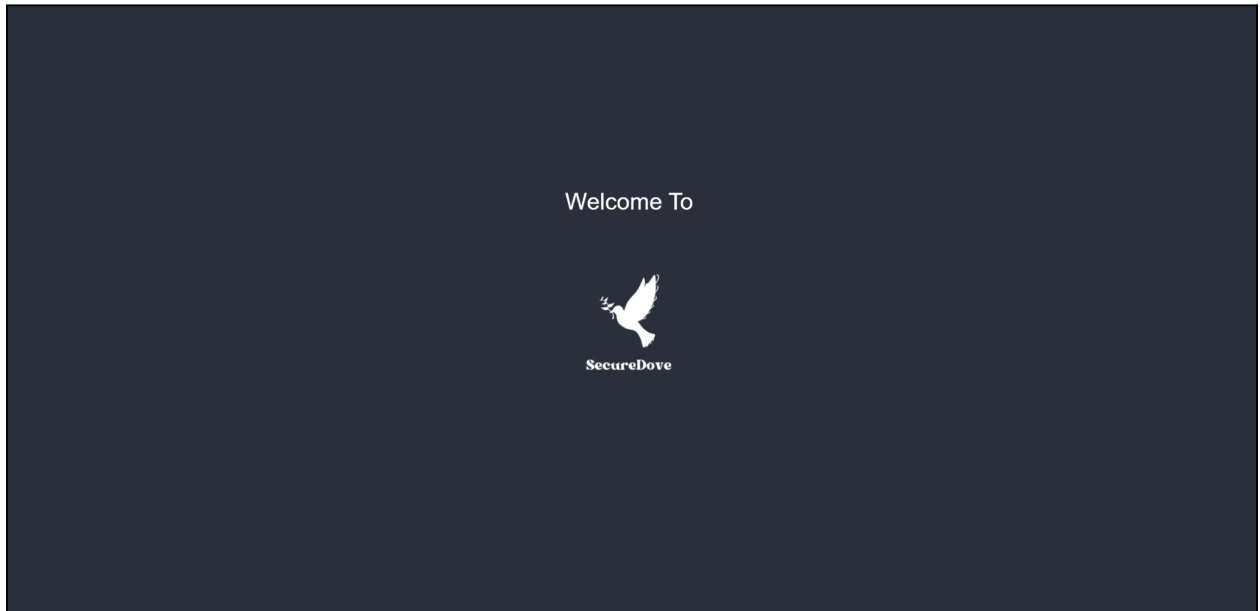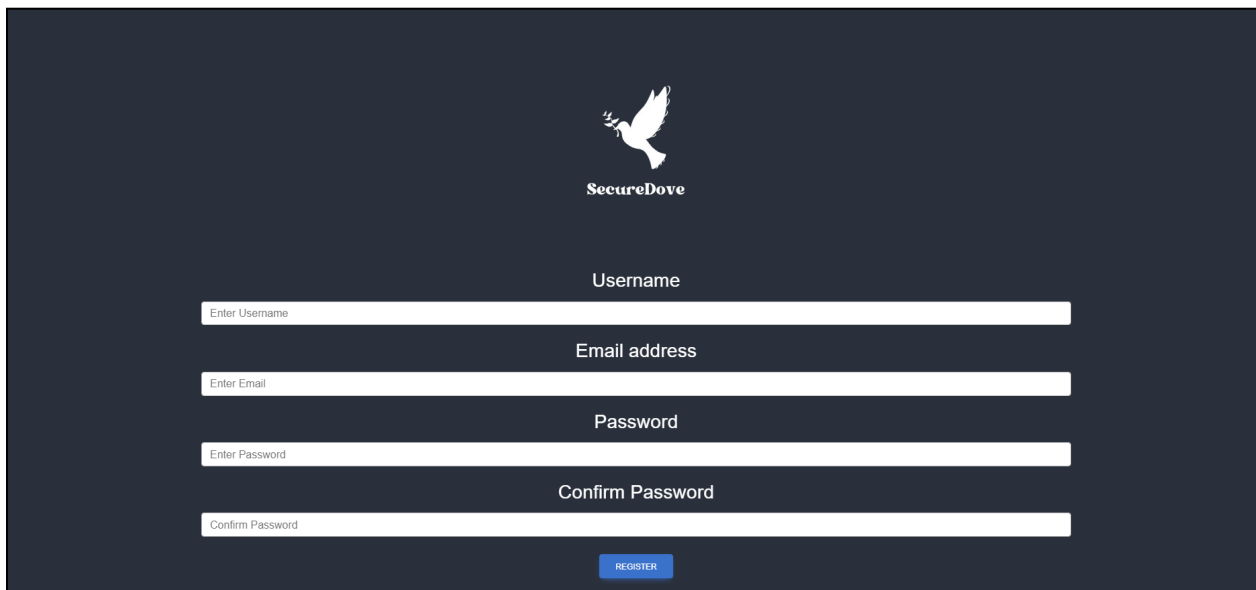
Login Page:

Standard login page with an email address field and a password field.

Registration Page:

Standard registration page that allows you to register an account with secure dove.
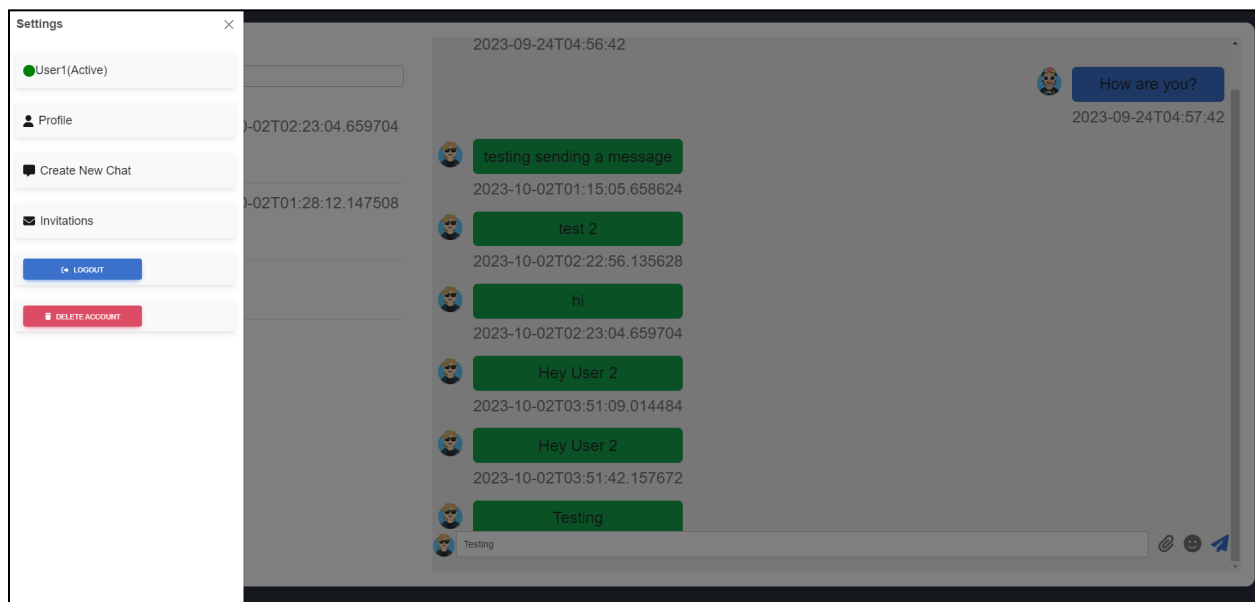
Chat View:

In the chat view, the left side of the chat represents the sender and the right side represents the receiver.
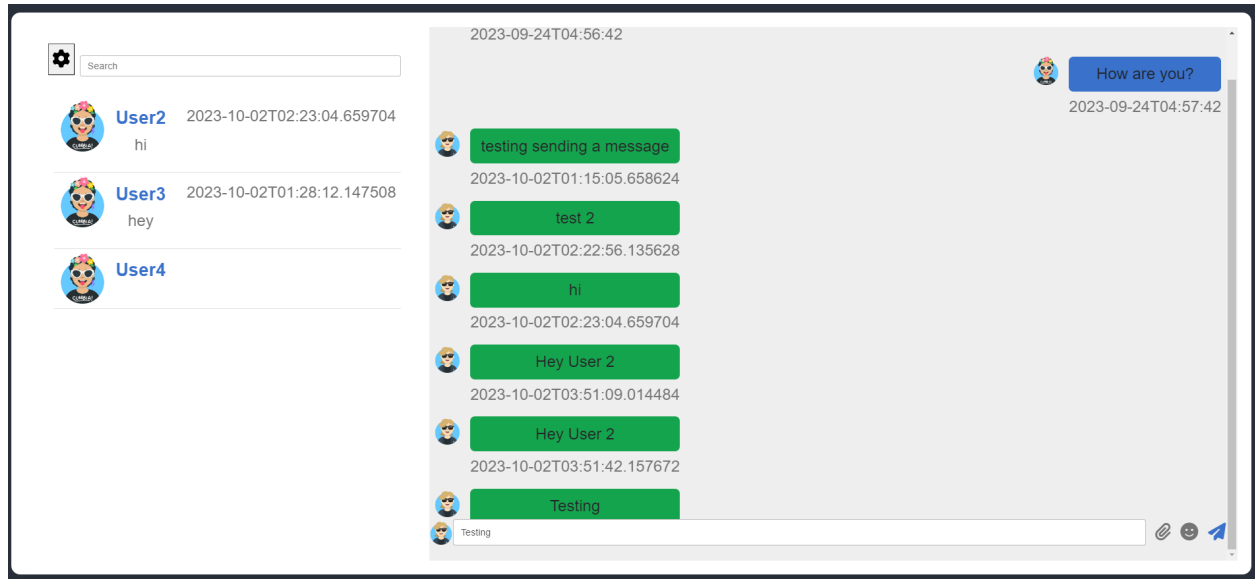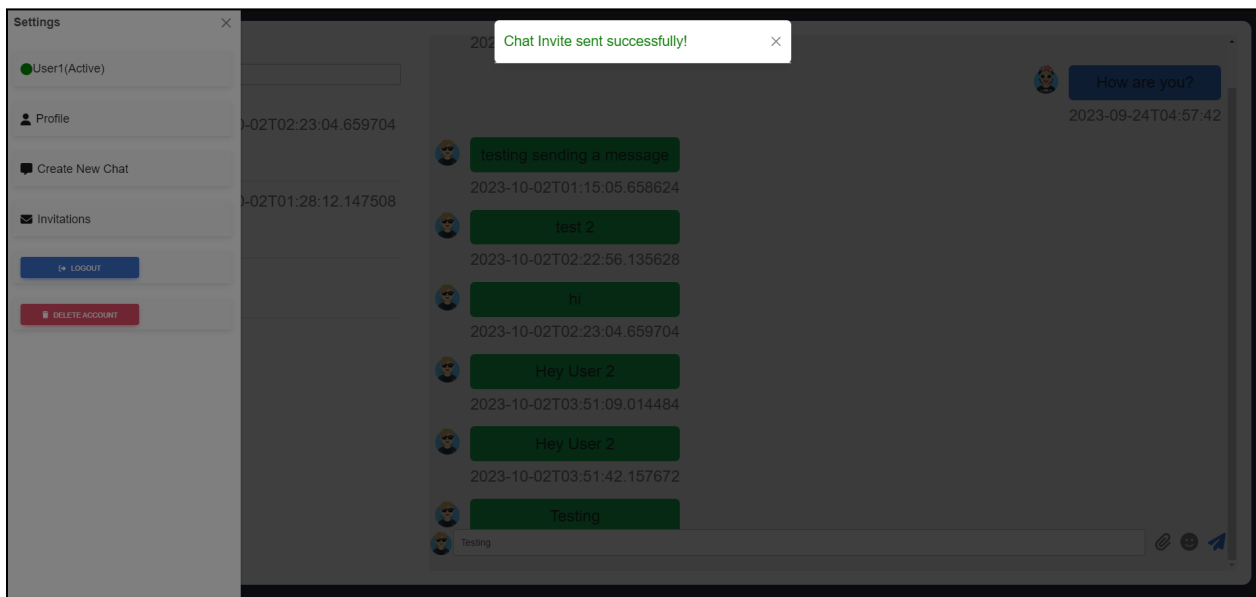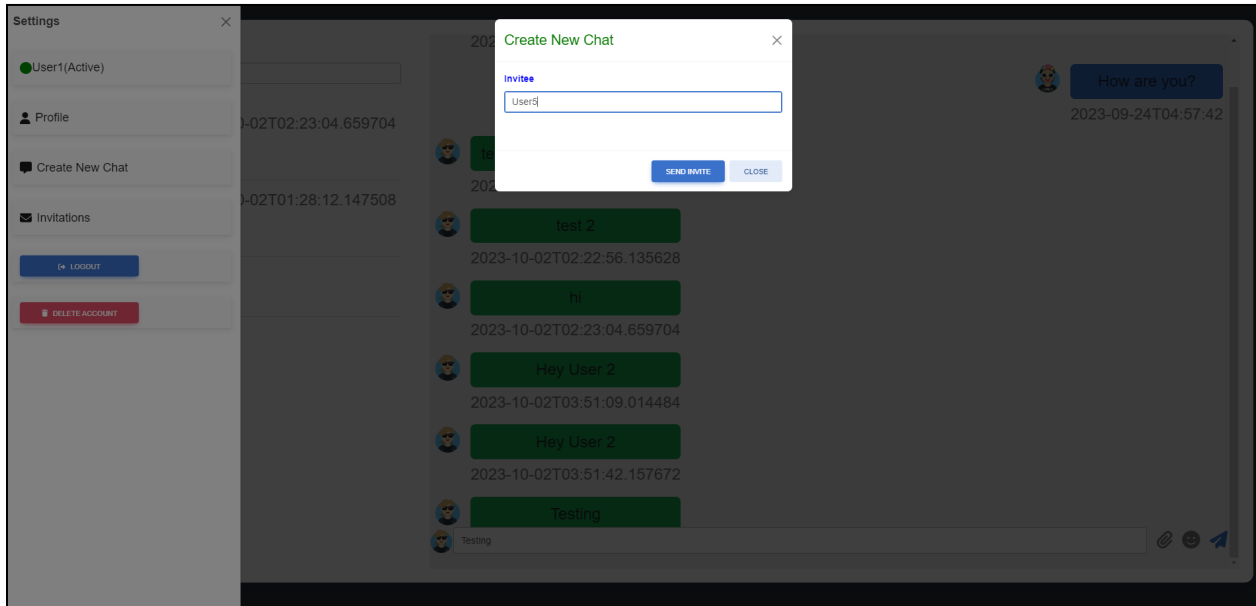

Settings:

The settings functionality displays the menu for the user to create new chat, accept invitations, logout and delete accounts.
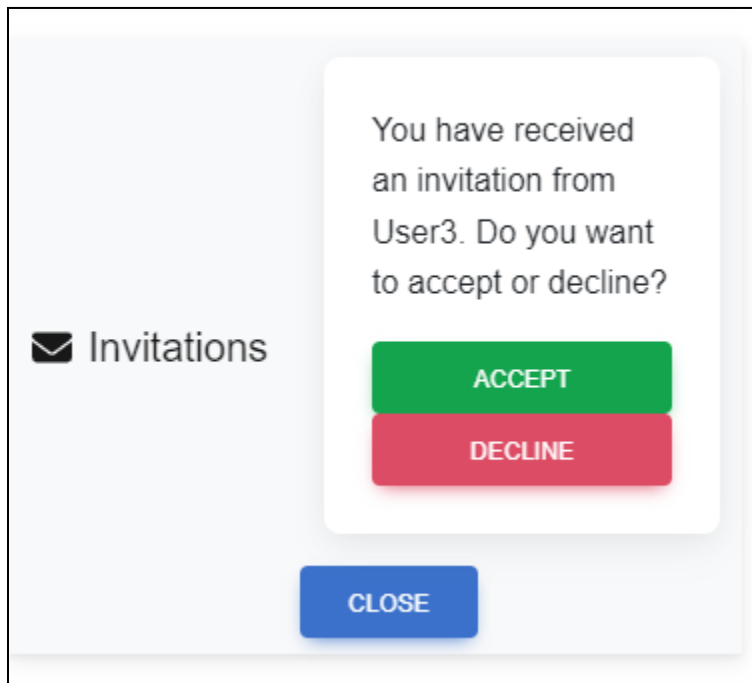
Create New Chat:

The Create New Chat functionality sends a chat invitation to another user. That user can then accept or decline that invitation in order to create a chat with the inviter.
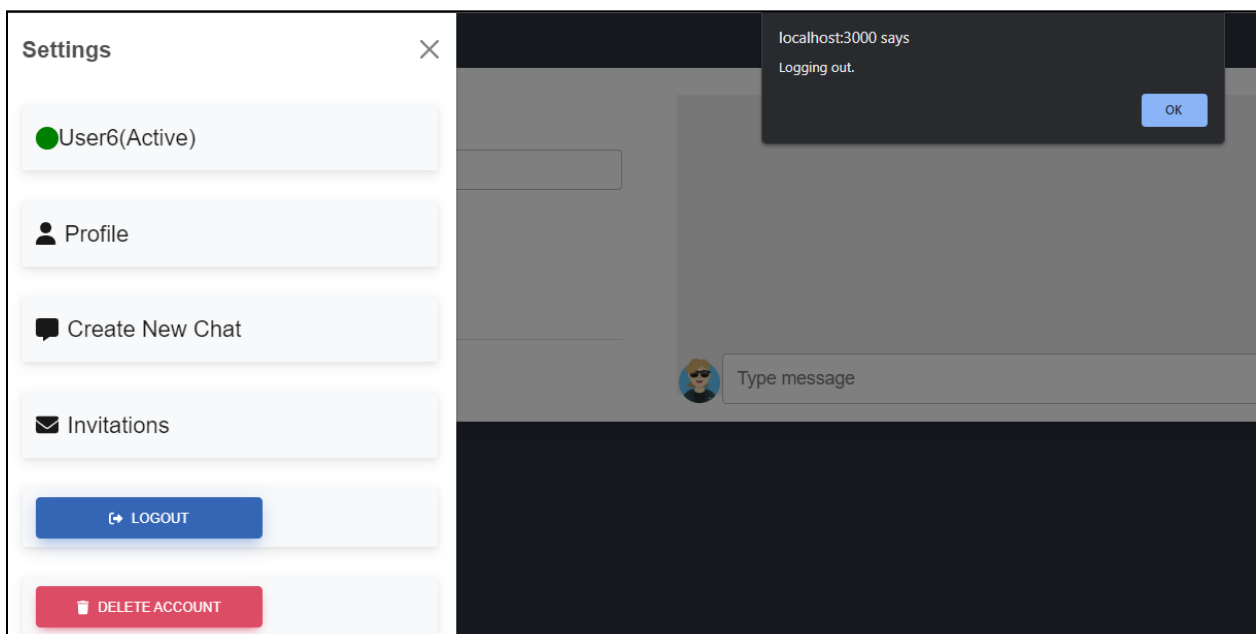
Invitations:

When a user receives an invitation, a small option to accept/decline will appear in the UI.

Logout:

To logout, the user will need to open up the settings menu and click on logout. A small alert will be displayed after logout is successful.

Delete Account:

Finally, the user can delete their account at any point after creation. This will delete all related invitations, messages, and chats with other users in the process, completely erasing that user from the database.