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SoftDev

P05

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Program Description

Our program is a messaging application where users will be able to chat with one another along with one another, featuring real-time messaging, group chats, friends, and more. Users will be able to upload their own profile pictures ~~and emojis that they can use in their desired chats~~. They will be able to connect with their friends by sending friend requests to them along with being ~~suggested new friends based on mutual friends.~~ Group messaging will also be implemented, allowing users to message multiple friends at once.

Program Components

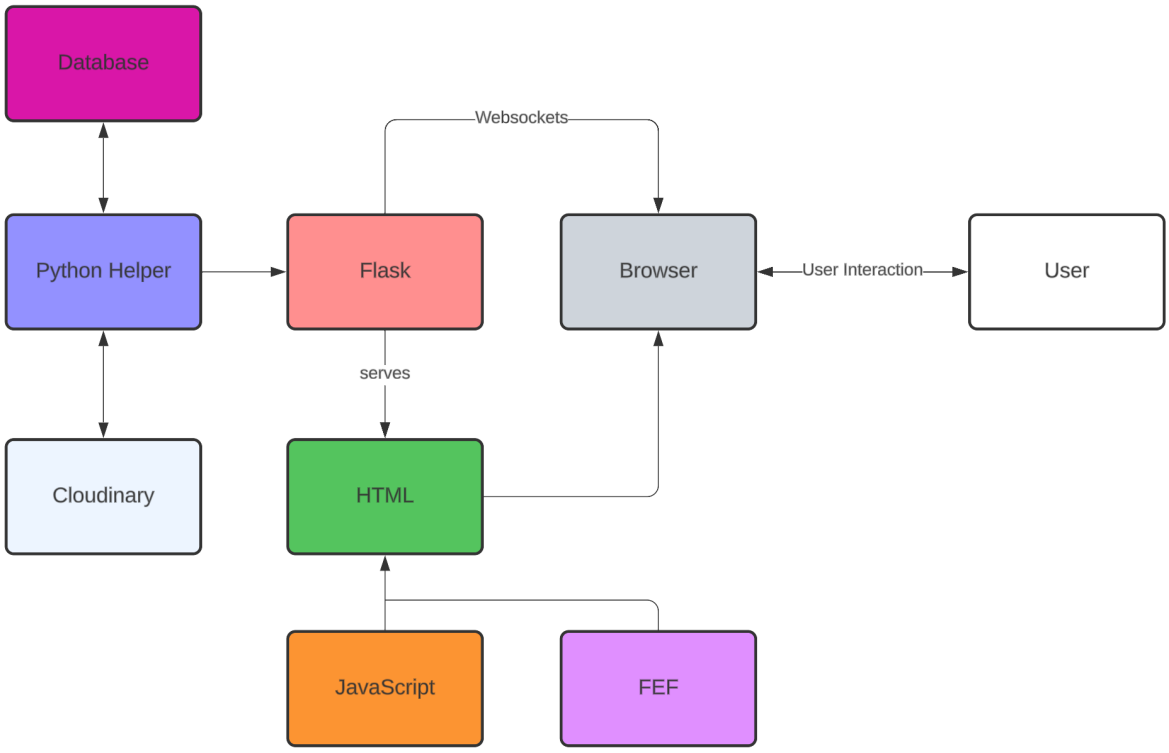
- __init__.py
    - Web Sockets Event Handlers
        - @socketio.on('login')
        - @socketio.on('connect')
        - @socketio.on('disconnect')
        - @socketio.on('select_group')
        - @socketio.on('message')
        - @socketio.on('send_request')
        - @socketio.on('accepted_request')
        - @socketio.on('rejected_request')
        - @socketio.on('request_canceled')
        - @socketio.on('updated_profile_picture')
        - @socketio.on('updated_group_image')
        - @socketio.on('changed_group_image')
    - Routes
        - @app.route('/login')
        - @app.route('/registration')
        - @app.route('/logout')
        - @app.route('/')
        - @app.route('/homeajax')
        - @app.route('/messagesajax')
        - @app.route('/friend-request-ajax')
        - @app.route('/profile')
        - @app.route('/friends')
        - @app.route('/friend-list')
        - @app.route('/search-friends')
        - @app.route('/search-friend-requests')
        - @app.route('/load-explore-ajax')

        - @app.route('/explore-search-ajax')
        - @app.route('/settings')
        - @app.route('desc-ajax')
        - @app.route('/profile/<username>')
        - @app.route('/create-group-search')
        - @app.route('/add-user-group-search')
        - @app.route('/creating-group-ajax')
        - @app.route('/add-users-to-group-ajax')
        - @app.route('/addUserDropdown')
- static/
    - css/
        - home.css
    - js/
        - home.js
        - profile.js
        - friends.js
        - settings.js
- templates/
    - login.html - page with form where users may login into their accounts
    - registration.html - page with form where users may sign up for an account
    - home.html - home page with a friends bar on the left and the chat on the right (similar to discord)
    - profile.html - profile page of a user (displays profile picture, mutual friends, and about me/bio)
    - friends.html - displays list of recommended friends based on mutual friends and be able to search for friends
    - settings.html - settings page where you can change profile pic and add about me
- db.py
    - Setups database tables
    - Contains functions to help access tables
- keys/
    - Key for Cloudinary API (secret.env)
- cloud.py
    - Handles Cloudinary use in the app

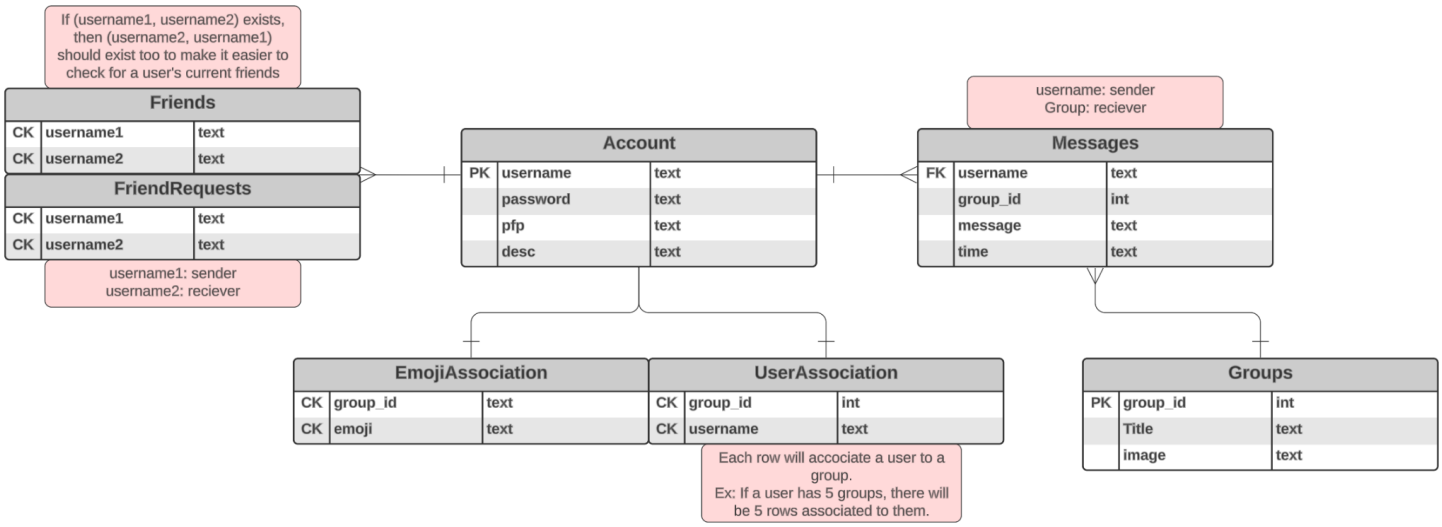
API

Cloudinary will be used to store images for user uploaded profile pictures and emojis that they would like to use. Images will be transformed depending on what their purpose is, (pfp, emoji, message images) and then stored with the Cloudinary SDK. We can then use the image's public img url in order to display the images.
https://github.com/stuy-softdev/notes-and-code/blob/main/api_kb/411_on_Cloudinary.md

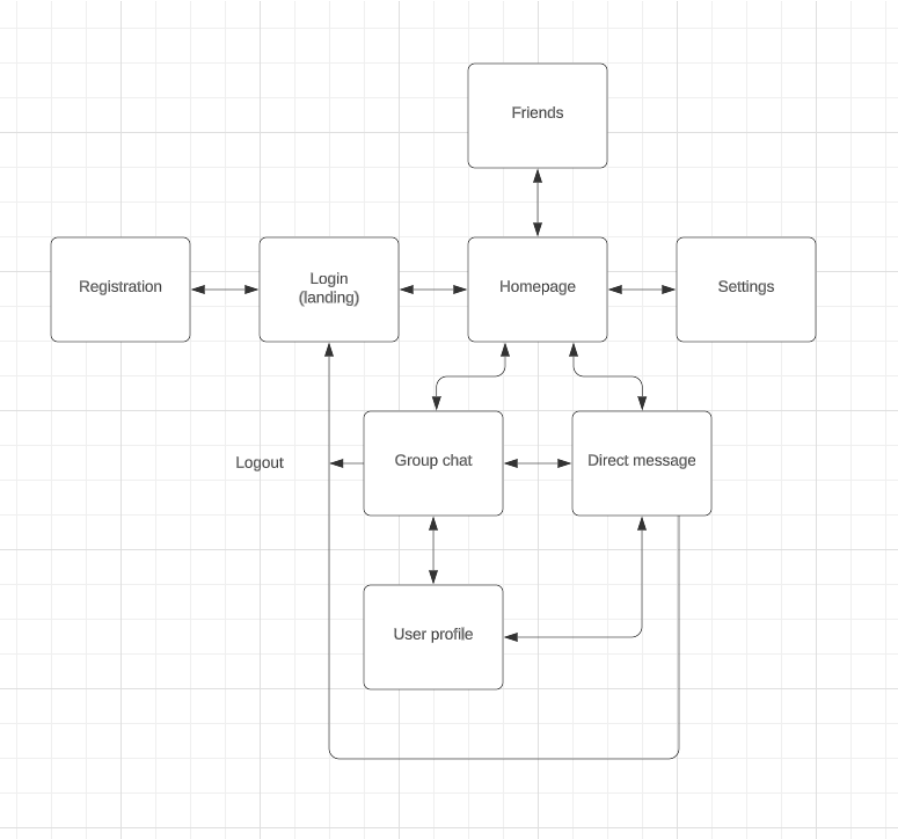
Program Component Interactions/Component Map



Database Organization



Site Map

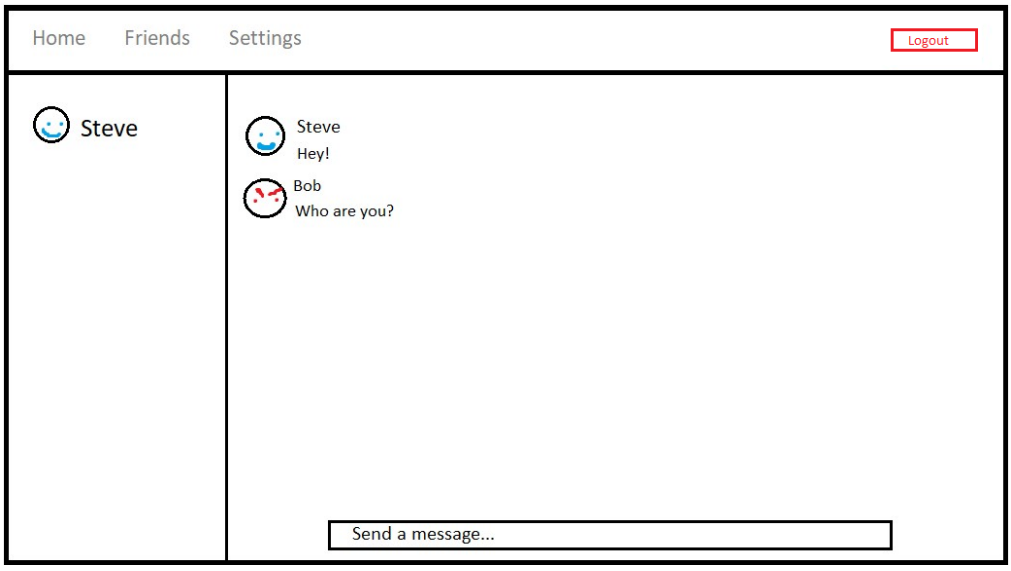


*User profile is the profile of a single user (viewing another user's profile)

Front-end Framework

Bootstrap will be used as our Front-end framework

Home page



Roles

Ivan Yeung - PM

- Flask
- Websockets
- JS

Jun Hong Wang - DEVO

- AJAX
- JS
- Flask

James Yu - DEVO

- FEF (Bootstrap)
- Droplet

Joshua Liu - DEVO

- Database
- Cloudinary
- Websockets
- Flask

Stretch Goals (None were achieved)

- Game Pigeon games where each turns is a message to the other client
- Replying to messages
- Reacting to messages
- Deleting messages
- Deleting groups