Project Full-Stack Software Development

Description

Chat Application with Text (CAT)

Our goal is to make an online web-application where users can chat with each other. To start a guest must first make a user account by registering. After they are registered, they will arrive at the home page where they can see a public chat. Here users can send and view messages. Guests can only view messages sent by registered users. Users can also delete their own messages after which these messages will not be visible to non-admin users.
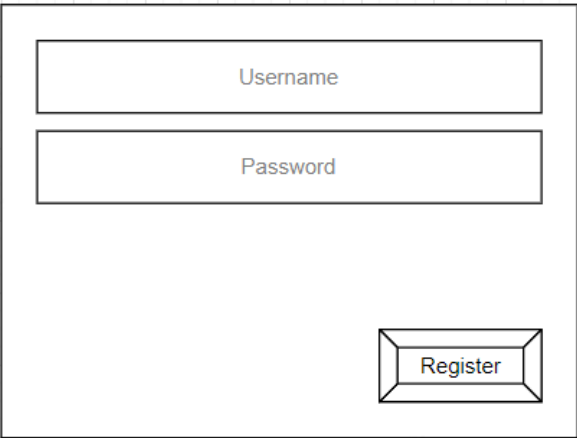
A user can send a friend request to another user to become their friend. They can do this either by interacting with the user on the public chat, or by entering the other user's username in a text field. The other user will then get a notification after which they can either accept or decline the friend request. Users can also later remove a friend by interacting with them in the friend list.

Friends can initiate a new chat with each other by selecting the user in their friend list. This chat is private and can only be viewed by the two participating users. Our app will also have an admin function where users can be given an admin role which allows them to delete messages and ban users. Admins will also be able to view deleted messages.

For the sake of simplicity, we will not use email verification (unless recommended otherwise) in our project. There will be no built-in functionality for adding admins; this must be done manually by editing the user's role in the database. Possible extra features we could add could be; replying to a specific message, internationalization, emoji reactions to a message, message/user reports and (private) group chats with more than 2 people.

User Stories

As a guest I'm able to create an account so that I can use the service

Acceptance Criteria

- Display a text field for username and password
- Display a register button
- Add user registration functionality for when a unique username and password are given, and the register button is pressed
- Add validation that the given username is unique
- Give username and password a maximum length, don't allow input longer than length

As a guest I'm able to see messages in the public chat so that I can become interested in the service

CHAT

| Public Chat |

(H) Ey, is iemand hier?

(K) hallo, ik ben hier nieuw

(S) Welkom in de chat guys

(T) Ik moet even iets zeggen over mijn leven jongens...

Acceptance Criteria

- Display a list of messages
- Add a circle with the first letter of the username on the left of the corresponding message

As a user I'm able to send messages in the public chat so that I can communicate with other users

CHAT

Public Chat

(H) Ey, is iemand hier?

(K) hallo, ik ben hier nieuw

(S) Welkom in de chat guys

(T) Ik moet even iets zeggen over mijn leven jongens...

Type your next message

Acceptance Criteria

- Add a text field for new messages
- Add send message functionality
- Add validation to not allow empty messages
- Give message a maximum length, don't allow input longer than length
- Add security to not allow JS injection

As a user I'm able to delete my own messages so that I can remove messages I no longer want people to see
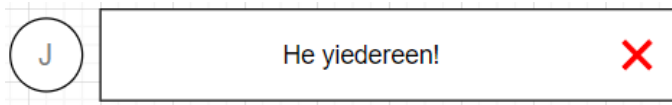
Acceptance Criteria

- Add a delete functionality
- Display a button for the delete function
- Add validation to allow (regular) users to only delete their own messages

As a user I'm able to add friends and see them on my friends list so that I can manage my friends
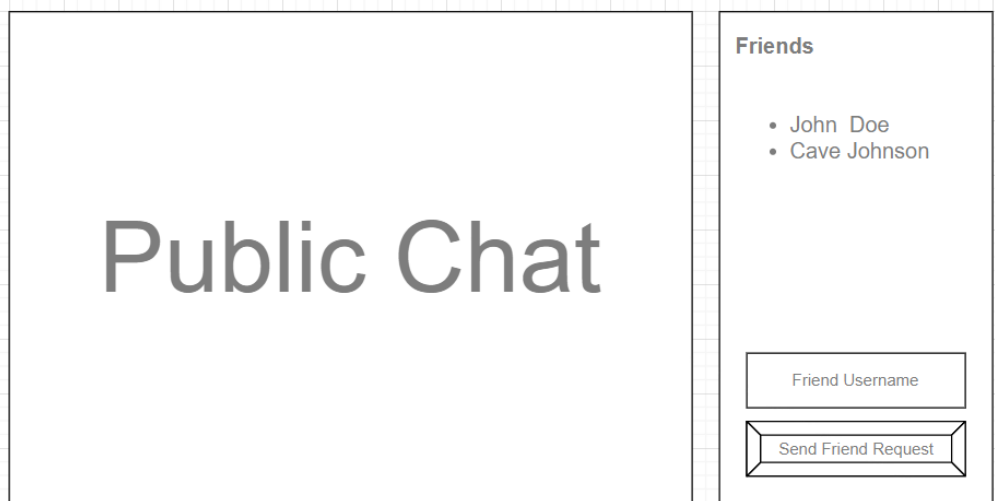
Acceptance Criteria

- Add a friends list where each friend is shown individually
- Add a text field for friend username
- Add a button for sending friend requests
- Add friend request functionality when the friend request button is pressed
- Add validation that a user exists with the given username

As a user I'm able to send and receive messages in a private chat so that I can communicate with a specific user
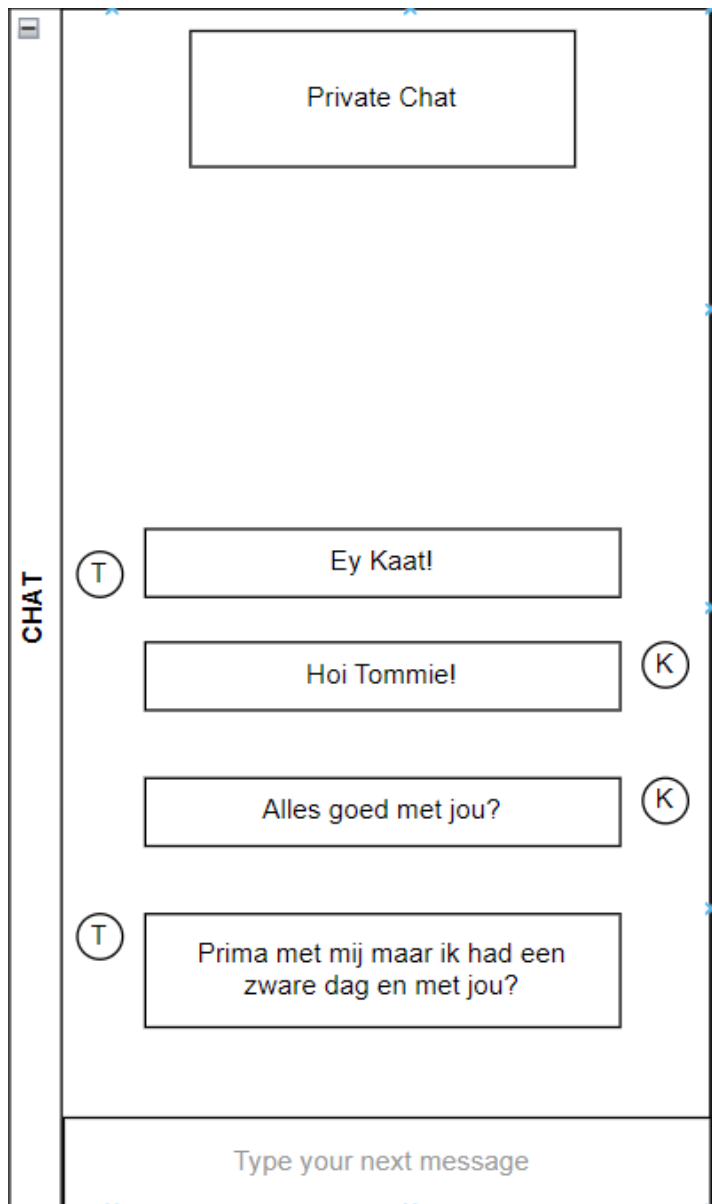
Acceptance Criteria

- Display a list of messages
- Add a circle with the first letter of the username next to the corresponding message
- Add validation to not allow private chats with unfriended users
- Add functionality to go to private chat, when friend is selected in the friends list
- Display a text field to write a new message
- Add send message functionality
- Add validation to not allow sending messages to private chats the user is not a member of

As a user I'm able to send a friend request to another user by interacting with them so that I can become friends with that other user
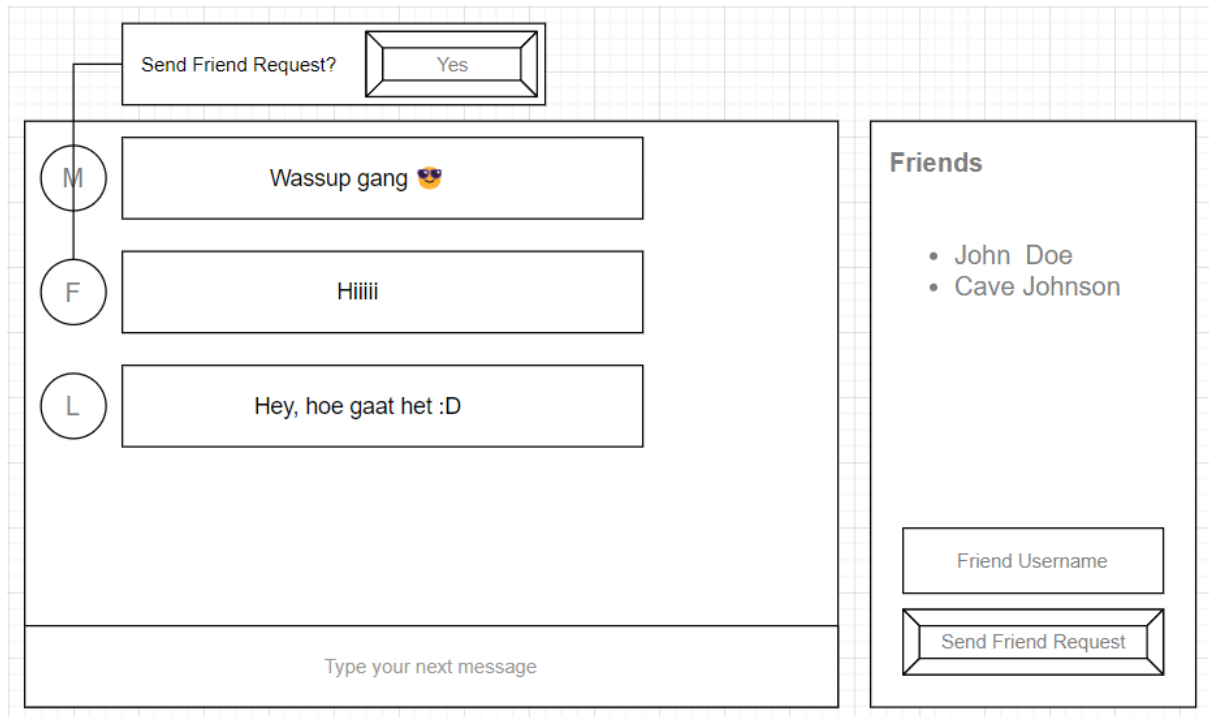
Acceptance Criteria

- Add a pop up for when a user is selected that shows a user profile
- Add a send friend request button in the profile
- Add send friend request functionality
- Add validation to not allow users to send friend requests to non-existing users or themselves

As a user I'm able accept or decline a friend request and view friend requests so that I can manage my friends
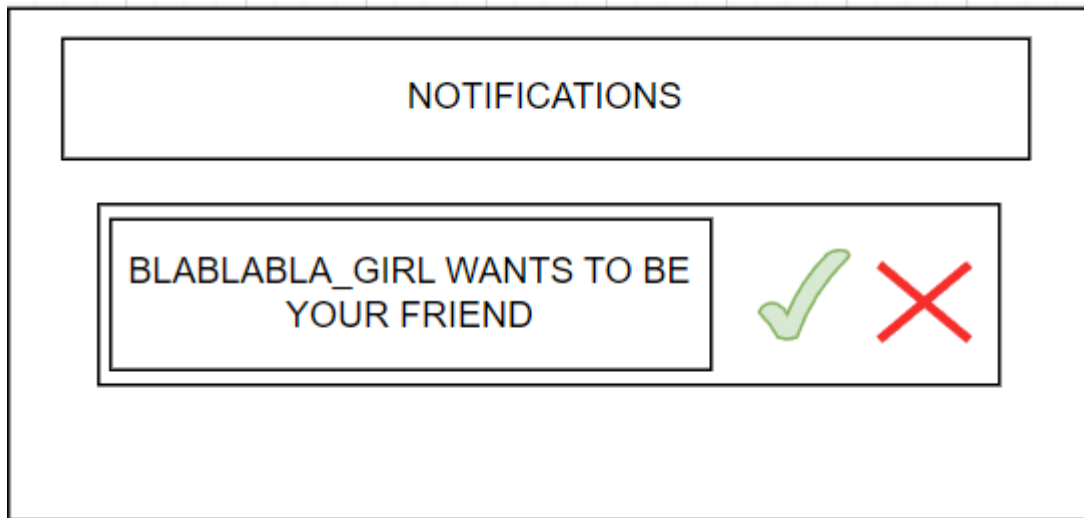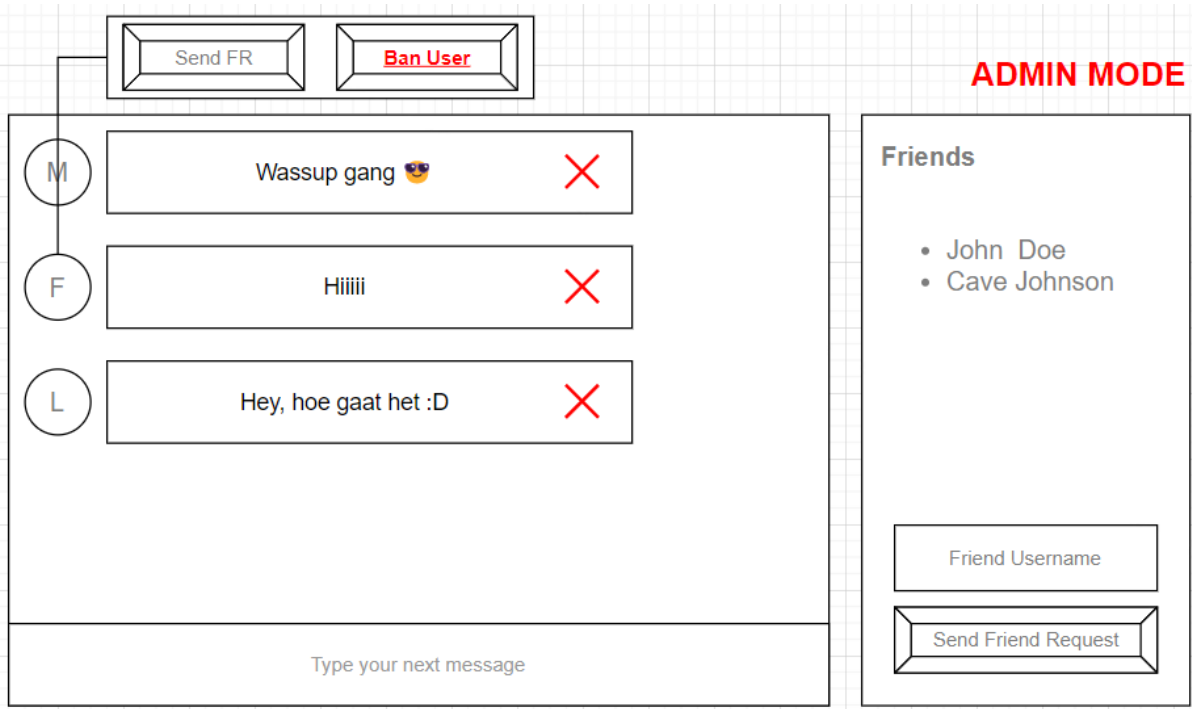

Acceptance Criteria

- Add Notification functionality
- Display a notification box
- Add pop-up messages in notifications for if someone wants to be your friend
- Add functionality to accept or decline the request
- Display an accept button and decline button
- Add validation to not allow other users to accept friend requests not sent to them

As an admin I'm able to delete any message in the public chat and ban users so that I can administrate the service

Acceptance Criteria

- Add roles to users (and add the admin role)
- Add functionality for deleting any message when the logged in user is an admin
- Add functionality for banning users when the logged in user is an admin
- Show that the logged in user is an admin if they are
- Add validation to only allow these functions when the user is an admin

As an admin I'm able to see deleted messages and delete them permanently so that I can administrate the service

ADMIN MODE

M	Wassup gang 😎	✕
F	Hiiiii	✕
L	Hey, hoe gaat het :D	✕
R	Deleted Ga iemand anders storen Lauren!	✕

Type your next message

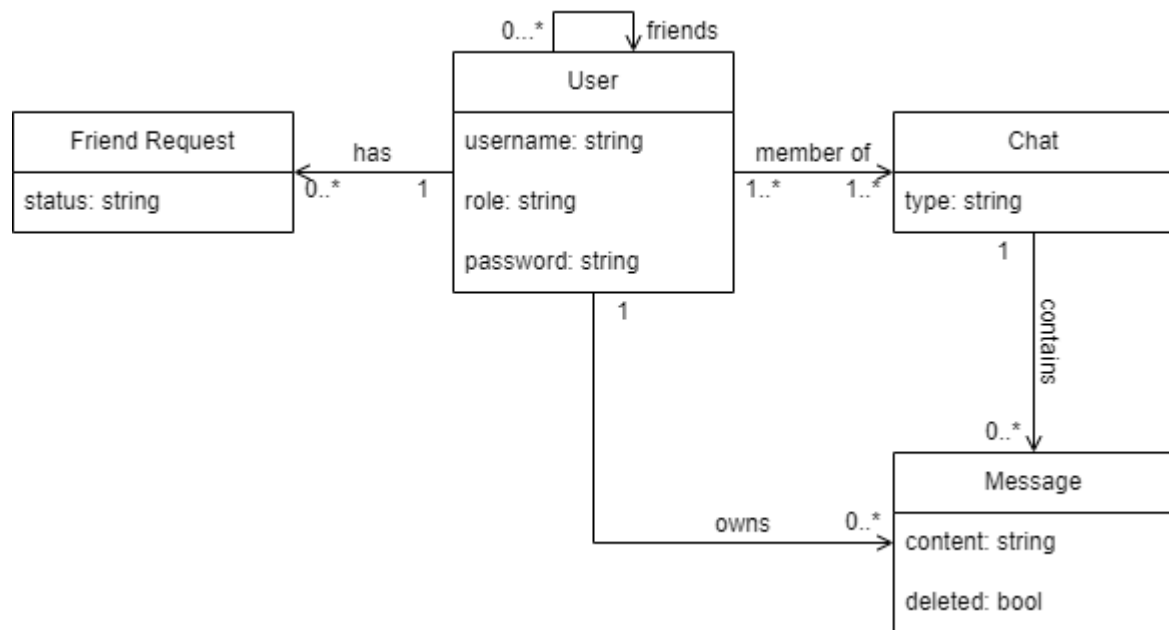**Friends**

- John Doe
- Cave Johnson

Friend Username

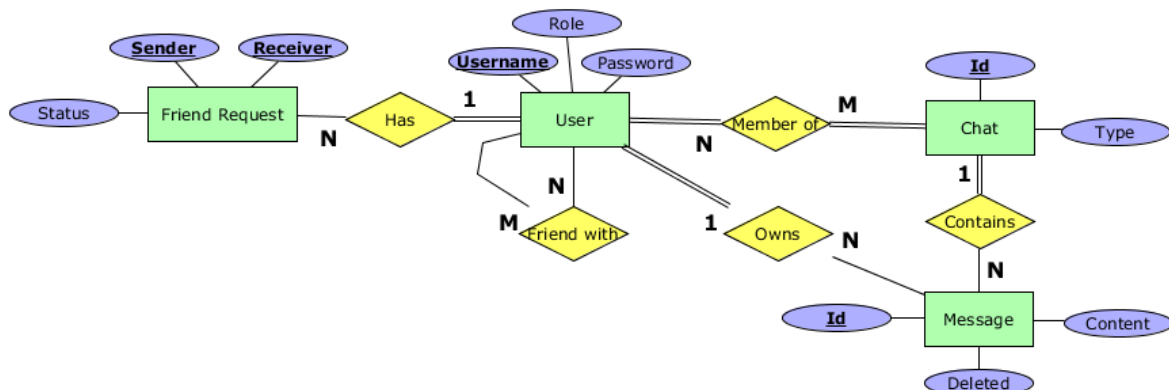Send Friend Request

Acceptance Criteria

- Add functionality for viewing deleted messages when the user is logged in as an admin
- Differentiate deleted messages from non-deleted messages
- Add functionality for permanently deleting "deleted" messages when the user is logged in an admin

Domain Models

Conceptual & Logical Database Model

Conceptual

Logical