Homework #2 – Twitter Service

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Class: CMPE272 Sec 03

Prof: Andrew Bond

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Source code

The source code for this assignment is stored on GitHub.

GitHub: https://github.com/parthpatelsjsu/CMPE272-Mastodon

Unit Tests

Testing library: Vitest

Test cases: mastodon/src/App.test.tsx.

Created by: Parth Patel

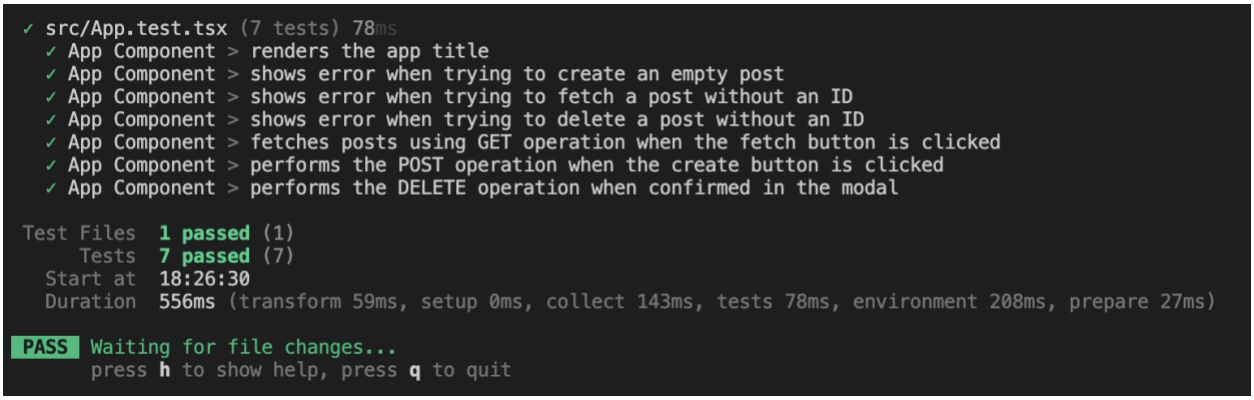
There are several functions implemented in this assignment. There is one or more test cases created for each function to test the functionality. These test cases are stored at the path provided above.

Vitest was chosen because is a lightweight testing framework built specifically for projects using Vite, which was used to create and run this project.

There are a total of 7 test cases. They are as follows:

1. Renders the app title
2. Shows error when trying to create an empty post
3. Shows error when trying to fetch a post without an ID
4. Shows error when trying to delete a post without an ID
5. Fetches post using GET operation when the fetch button is clicked
6. Performs the create post operation when the create button is clicked
7. Performs the delete operation when the delete button is clicked

The test cases are run using the CLI command “npx vitest” which runs the test cases as shown below



Web UI

The assignment has been made public in the GitHub repository and deployed to GitHub pages. It is connected to Mastodon server, so any API request will affect posts on the server.

Hosted on GitHub Pages: https://parthpatelsjsu.github.io/CMPE272-Mastodon/

UI Interaction

Creating a post

File: mastodon/src/App.tsx

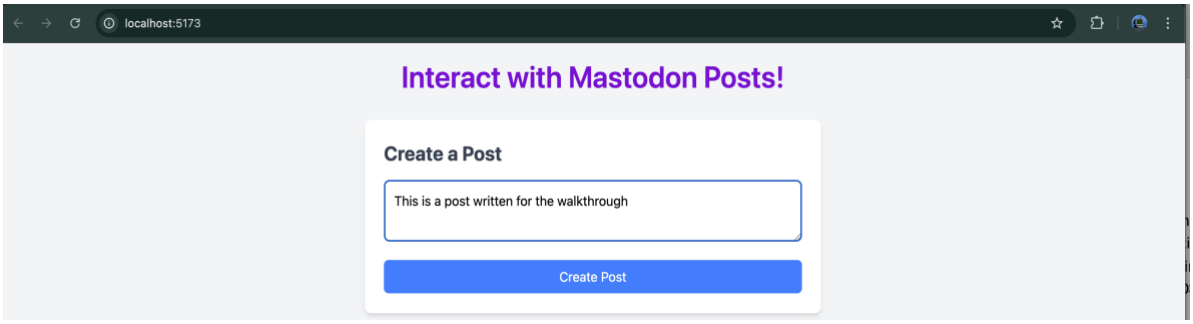
Function: createPost()

Implemented by: Shailen Sutradhar

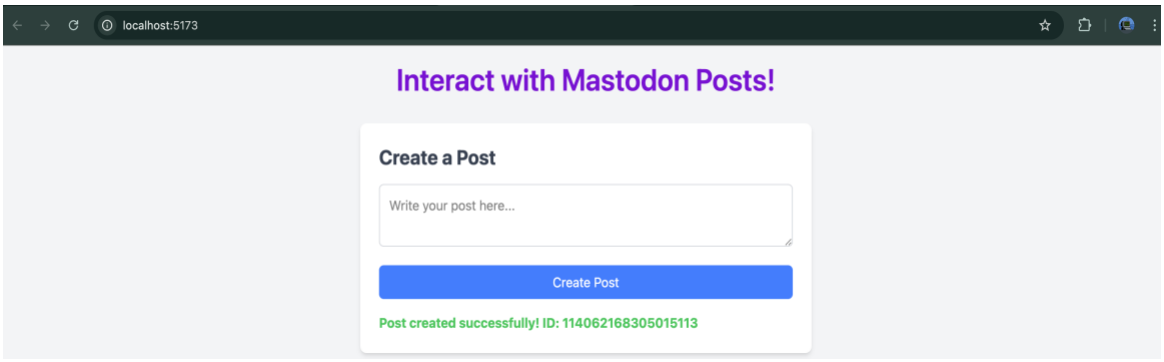
This function takes the contents of the text box as input. If the input contains any non-whitespace characters, a POST request containing the instance, authorization token, and content-type is assembled. The result is a post successfully being created in our Mastodon server, and success is displayed on the UI. If the input is invalid, or if the POST request fails for any reason, the failure along with a reason is displayed on the UI.

The walkthrough is as follows:

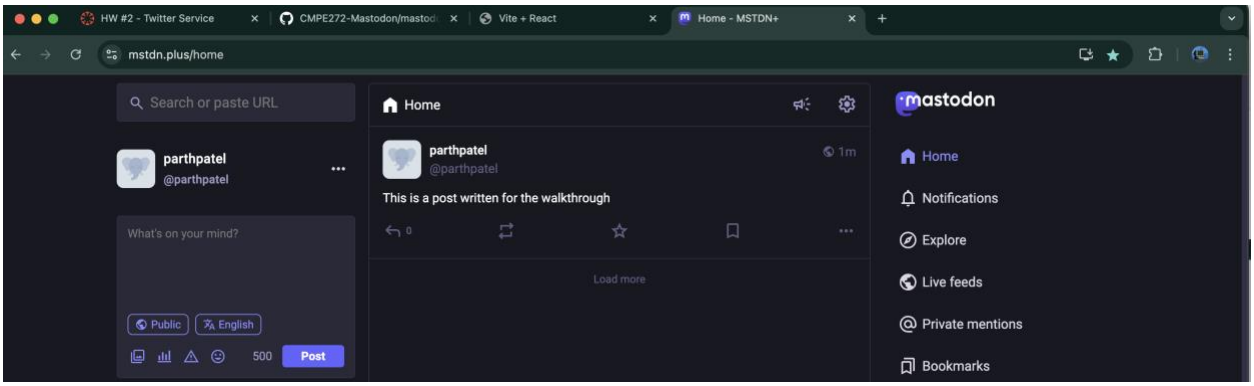
1. Write the post in the textbox



2. Click create (image shows after click)



3. Post shown on https://mstdn.plus/home



Fetching a Post

File: mastodon/src/App.tsx

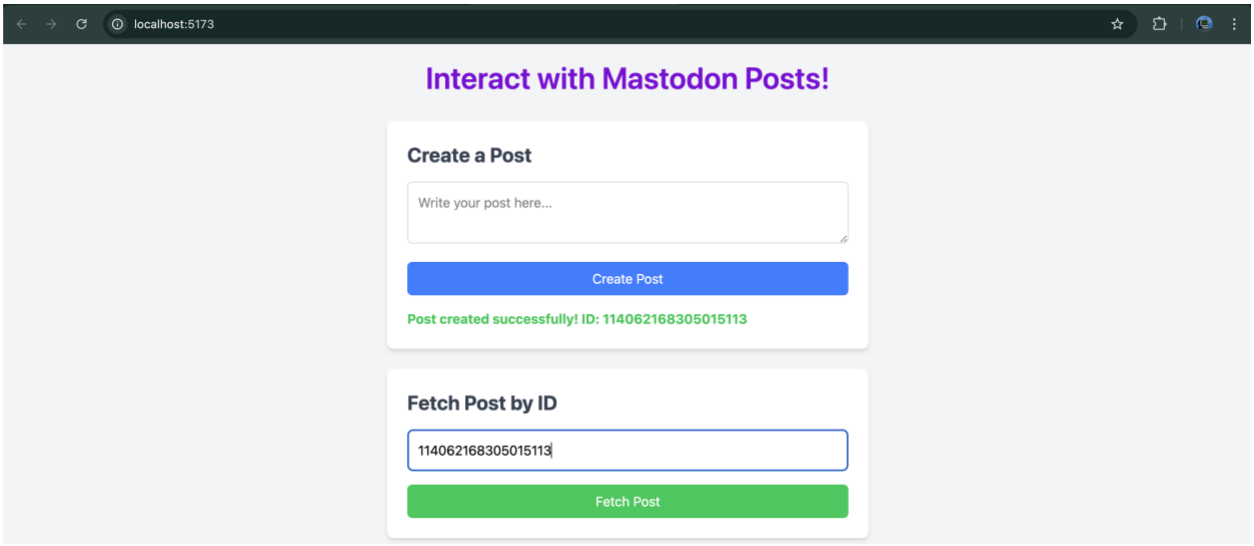
Function: fetchPostById()

Implemented by: Dev Patel

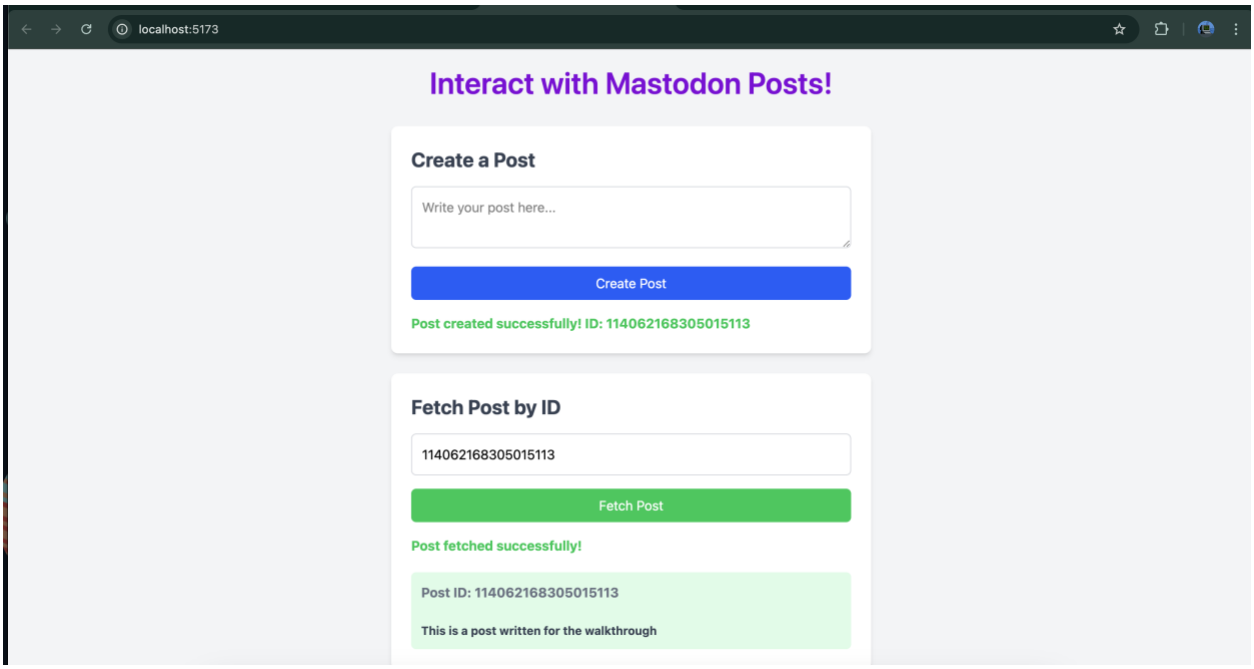
This function takes the contents of fetch ID textbox as input. If the input is a valid ID of a post on our Mastodon server, it assembles a GET request containing the instance, post ID to be fetched, authorization token, and content-type. This request retrieves the post and displays the ID and content on the UI. If the ID is invalid or the GET request fails, a failure message and reason is posted on the UI.

The walkthrough is as follows:

1. Provide an ID of a post in the textbox



2. Click “Fetch Post” button to see the post



Deleting a Post

File: mastodon/src/App.tsx

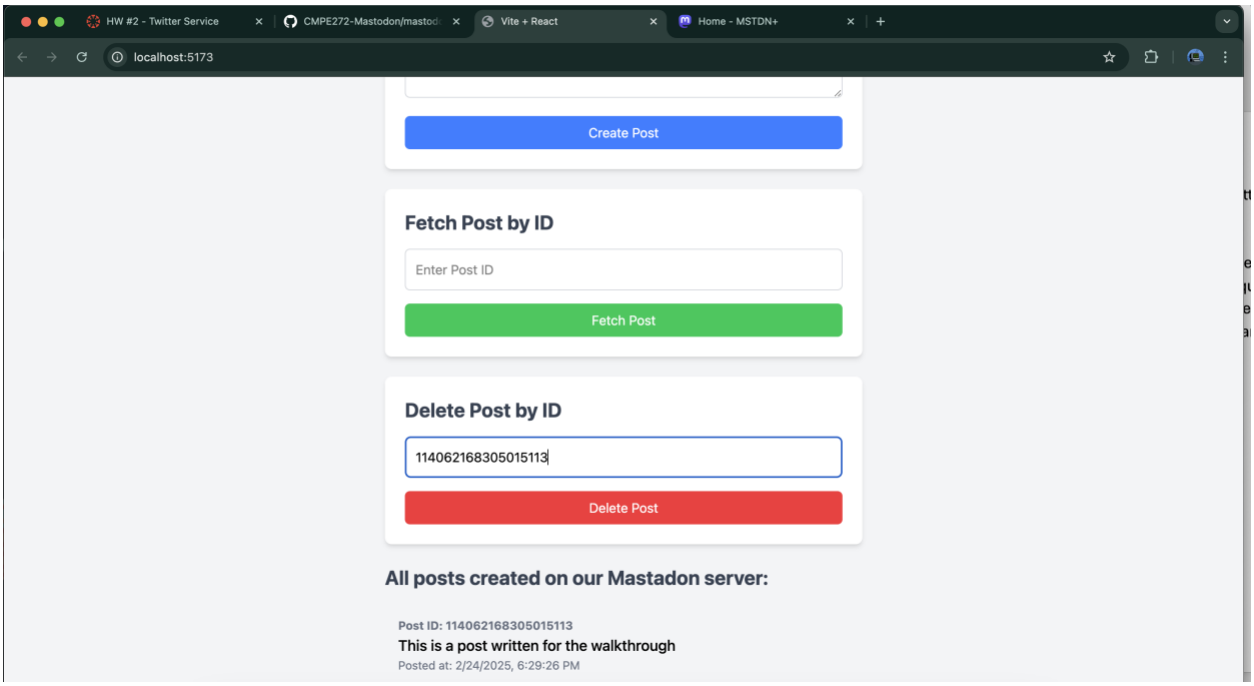
Functions: handleConfirmDelete(), handleDeleteClick()

Implemented by: Gautam Santhanu Thampy

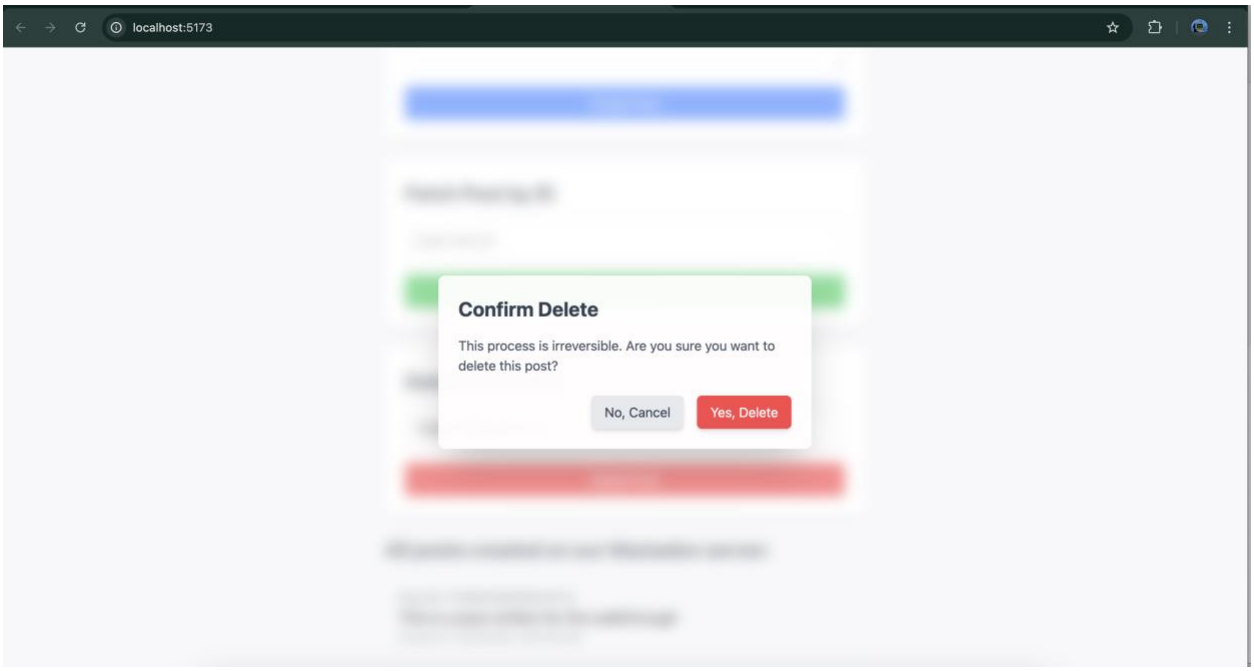
This function also takes the contents of the ID textbox as input. When the delete button is clicked, the handleDeleteClick() function is called which displays a modal modal prompting the user to confirm. When the user confirms the delete, the handleConfirmDelete() function is called which performs the delete operation. If the input is a valid ID of a post on the Mastodon server, this function assembles a DELETE request containing the Mastodon instance address, post ID to be deleted, authorization token, and content-type. This request deletes the post which the ID corresponds in our server and displays a success message on the UI. If the ID is invalid or doesn't exist, an failure message is displayed on the UI.

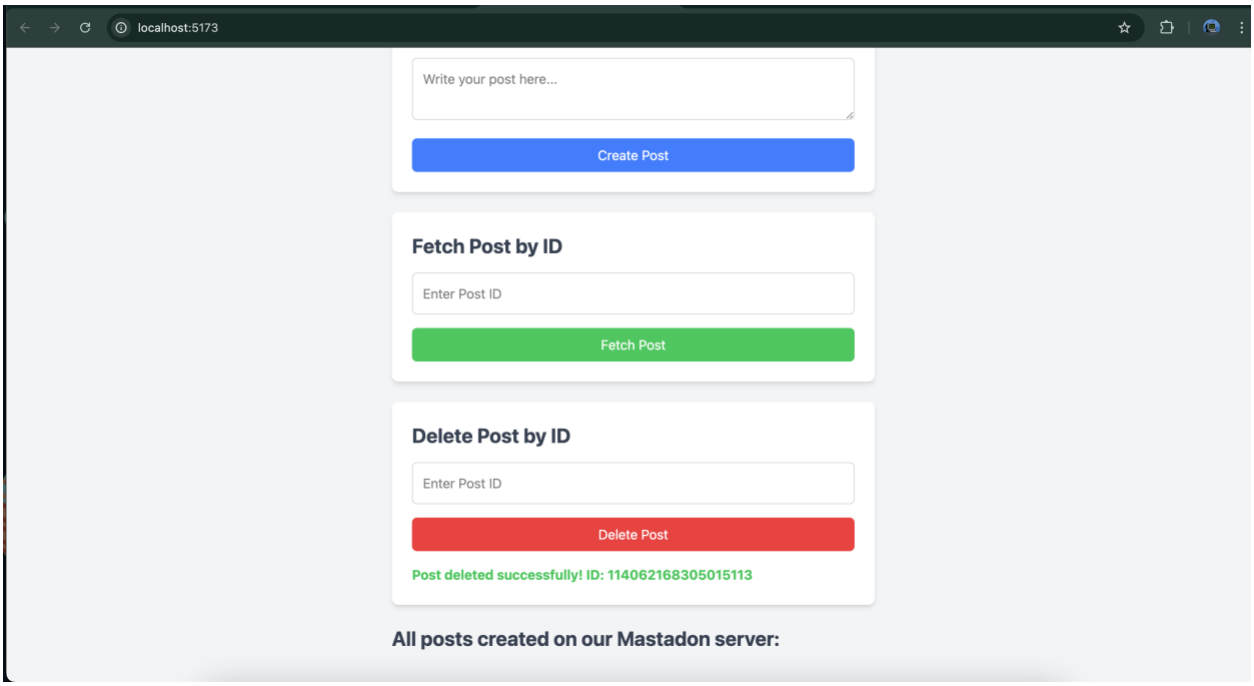
The walkthrough is as follows:

1. Provide an ID that you want to delete:

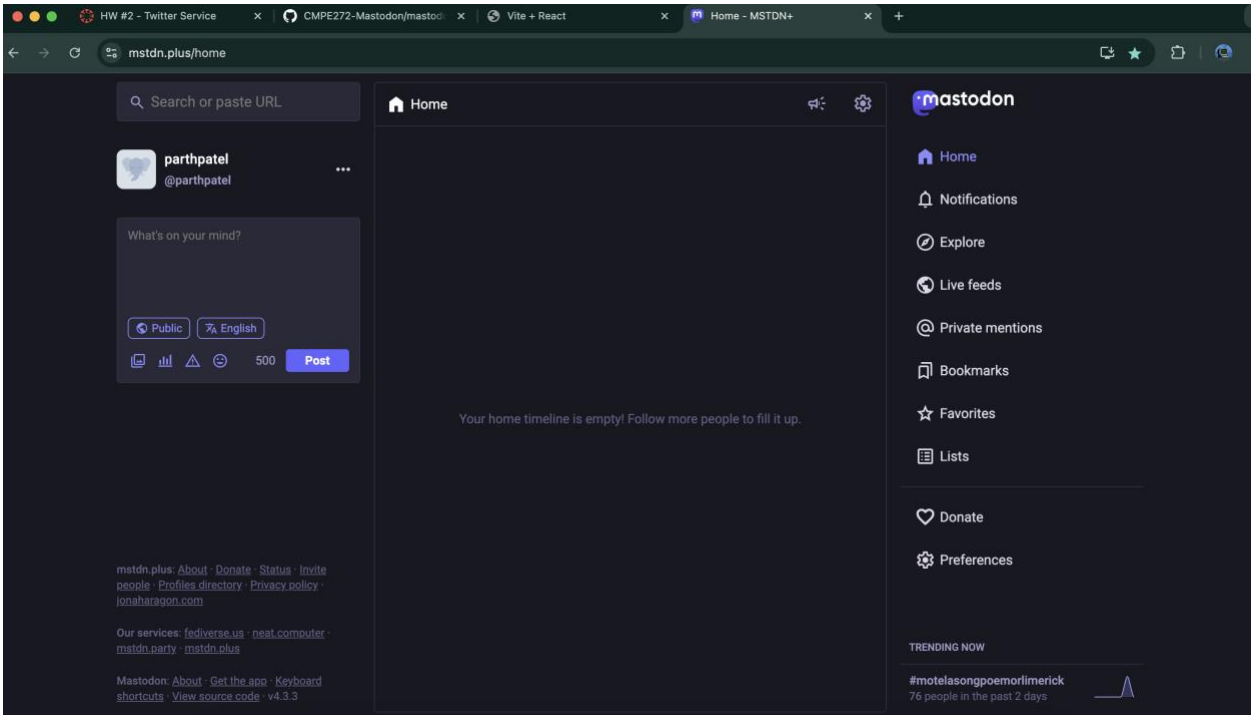


2. Click Yes, delete to confirm





3. Confirm it has been removed on the server



Fetch All Posts

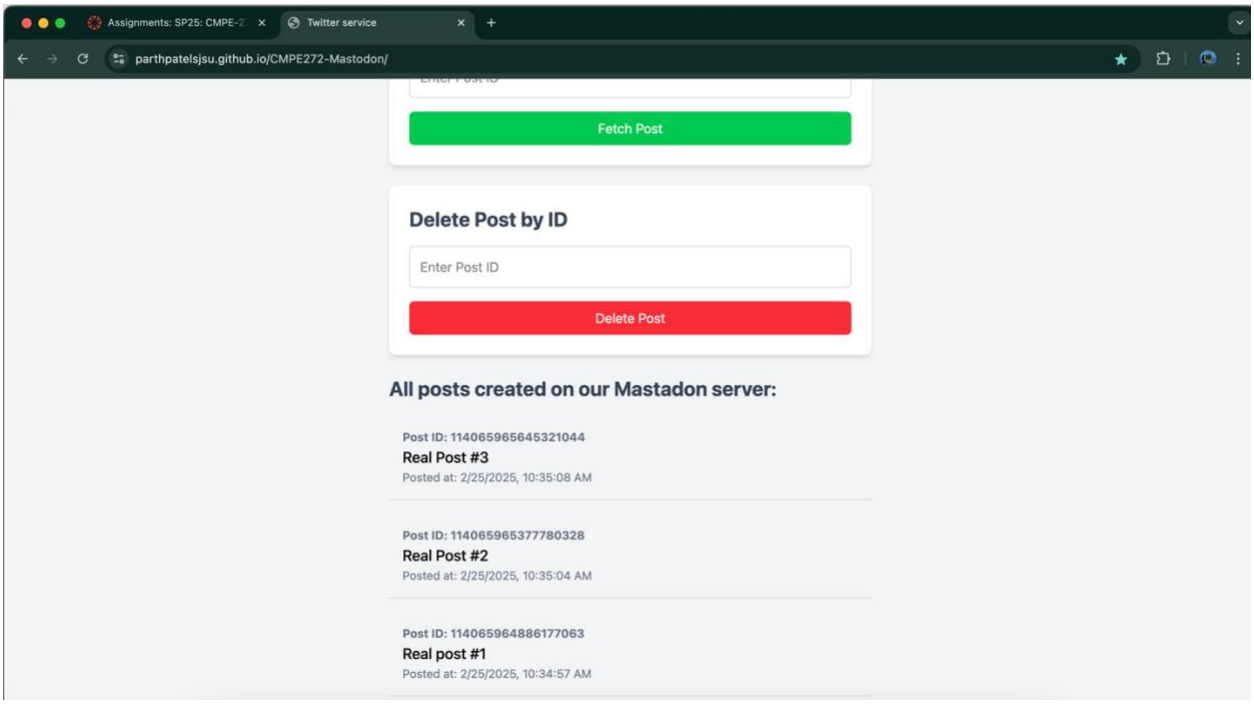
File: mastodon/src/App.tsx

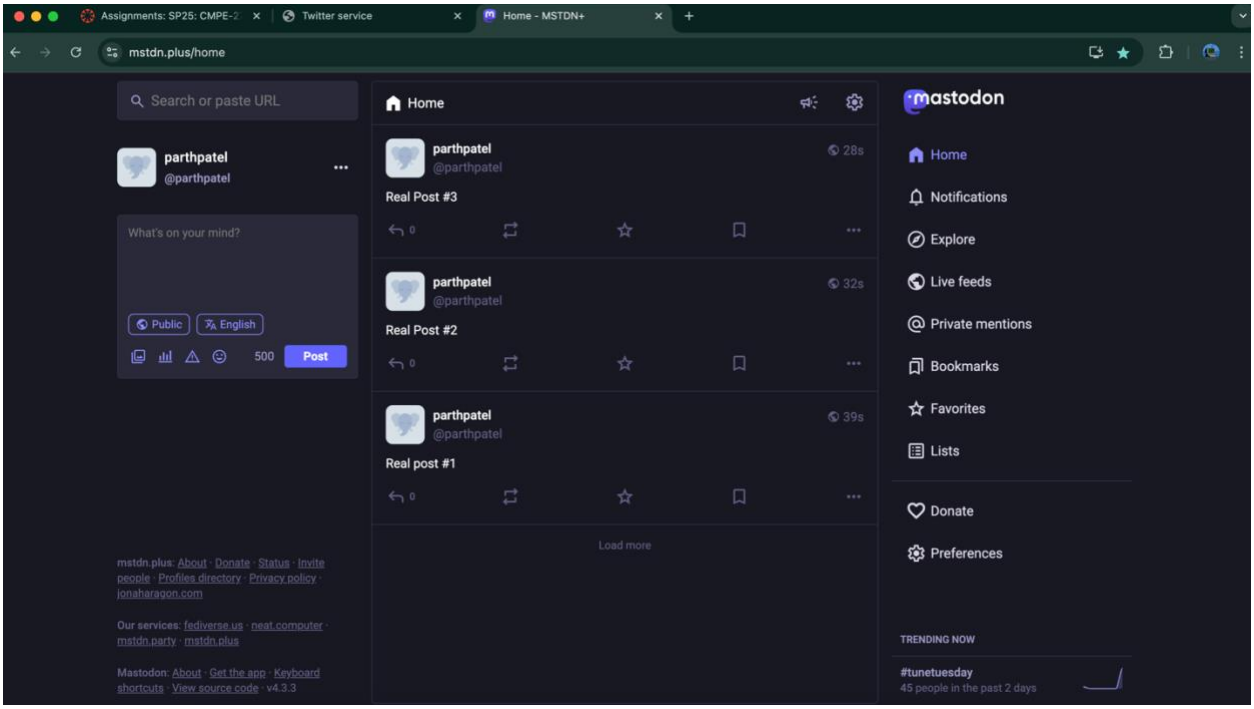
Function: fetchAllPosts()

Implemented by: Parth Patel

Since we cannot share access to the Mastodon server directly, all the posts created are shown below. The function that performs this task is fetchAllPosts().

Suppose 3 posts are created, this section would look like the following:Í


Assignments: SP25: CMPE-2
Twitter service
parthpatelsjsu.github.io/CMPE272-Mastodon/
Fetch Post
Delete Post by ID
Enter Post ID
Delete Post
All posts created on our Mastadon server:
Post ID: 114065965645321044
Real Post #3
Posted at: 2/25/2025, 10:35:08 AM
Post ID: 114065965377780328
Real Post #2
Posted at: 2/25/2025, 10:35:04 AM
Post ID: 114065964886177063
Real post #1
Posted at: 2/25/2025, 10:34:57 AM


Assignments: SP25: CMPE-2
Twitter service
Home - MSTDN+
mstdn.plus/home
Search or paste URL
parthpatel
@parthpatel
What's on your mind?
Public
English
500
Post
Home
parthpatel
@parthpatel
28s
Real Post #3
parthpatel
@parthpatel
32s
Real Post #2
parthpatel
@parthpatel
39s
Real post #1
Load more
mastodon
Home
Notifications
Explore
Live feeds
Private mentions
Bookmarks
Favorites
Lists
Donate
Preferences
TRENDING NOW
#tunetuesday
45 people in the past 2 days