

COP5615 – FALL 2019

PROJECT 4.2: TWITTER ENGINE REPORT

Group Members

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Instructions to run the project

To run the project:

Install the dependencies: `mix deps.get`

Install the Node.js dependencies: `cd assets && npm install && cd ..`

Run the server: `mix phx.server`

Link to YouTube Video

https://youtu.be/hsL_0jONzOE

What is Working

The following functionalities are working:

- Register account and delete account
- Send Tweets (including hashtags and mentions)
- User can Login and logout
- Subscribe to user's tweets
- Re-tweet
- Allow querying tweets subscribed to, tweets with hashtags and mentions
- search the hashtags and users by their names.
- Live tweets delivery to the user who are online.

Bonus:

- *User authentication using sha256 hashing.*
- *Send a message to user's feed directly.*

Implementation details:

We have implemented the following functionalities and build a twitter web application. In twitter web application a user can send tweets, register account, delete account, login, logout, re-tweet, subscribe to another user. We used ETS data storage for storing the data provided by the user. All the functionalities are explained below:

1. **Register account:** User can register the account. If he tried to login before register, then the error message will pop up.
2. **Login:** A user can login into the portal using the username and password. All the other errors will also be handled by the program.
3. **Logout:** user can also logout from their account and go offline.
4. **Delete Account:** User can delete their account if they are logged in.
5. **Send Tweets:** A user can send tweet when online. user can use the hashtag and mention a user in the tweet. When a hashtag is used in a tweet, an entry gets created in the hashtag table. When subsequent tweet about the same hashtag is found, that tweet is added to the hashtag. When a user is mentioned in a tweet. The tweet will be entered in the user directory, but it will not be post on the user's feed.
6. **Search hashtag or user's post:** we can see the posts associated to a hashtag just by entering the hashtag in the search bar and clicking the search button. We can also search the user's post if they are available.
7. **Subscribe to user:** A user can subscribe to the tweets of another user.
8. **Re-tweets:** In case of an interesting tweet encountered by a user, he/she gets an option to retweet it. When user click the retweet button then the tweet will be post on the followers feed of the re-tweeter.
9. **Direct message:** user can directly send the messages to other user's feed using sockets.

Sending response from the server to the user is done with the help of sockets. We use socket to locate the receiver's PID and send the response directly to the user. The response is then managed by the controller which post the response to the user's feed.