

---

## DISTRIBUTED OPERATING SYSTEM

---

### PROJECT-4.2 : TWITTER CLONE & SIMULATOR

---

#### Group Members:

Name: Shashank Bantakal      UFID: 9592-6559  
Name: Santhosh Suresh      UFID: 5985-1919

#### Implementation Details:

The goal of this project is to implement a Twitter clone & a client simulator, the problem statement is to implement a twitter engine paired up with Web Sockets to provide full functionality.

Web interface was created using phoenix that allows access to the ongoing simulation using a web browser.

The Twitter engine (Server) has been implemented with the following functionality:

- Register account
- Send tweet. Tweets can have hashtags (e.g. #COP5615isgreat) and mentions (@bestuser)
- Subscribe to user's tweets
- Re-tweets (so that your subscribers get an interesting tweet you got by other means)
- Allow querying tweets subscribed to, tweets with specific hashtags, tweets in which the user is mentioned (my mentions)
- If the user is connected, deliver the above types of tweets live (without querying)

#### Instructions to run the project :

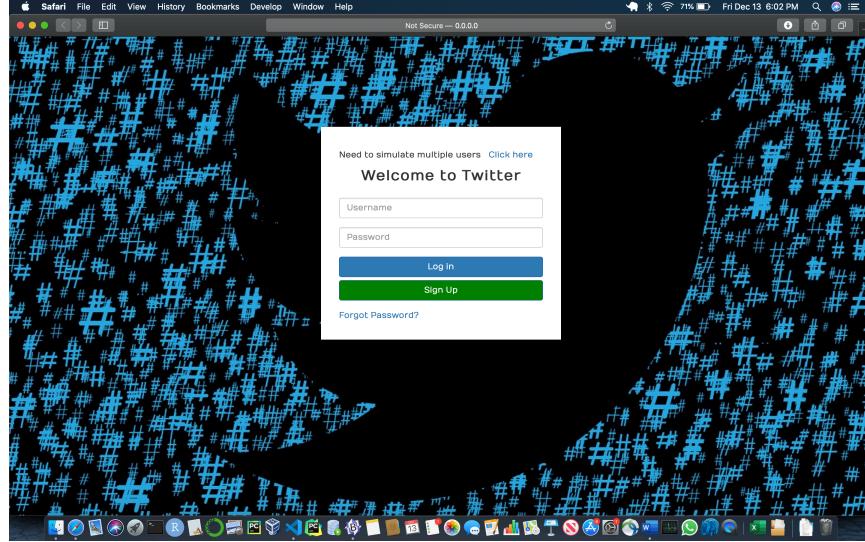
1. Navigate to the project directory, execute **cd twitter/**
2. Fetch all the dependencies, execute “**mix deps.get**”
3. Start the phoenix twitter server, execute “**mix phx.server**” or “**iex -S mix phx.server**” (for interactive mode)

Expected output: Running TwitterWeb.Endpoint with Cowboy using  
<http://0.0.0.0:4000>

4. Open a web browser and type in the url “<http://0.0.0.0:4000>” and hit enter
5. Follow instructions on the screen to navigate through the application

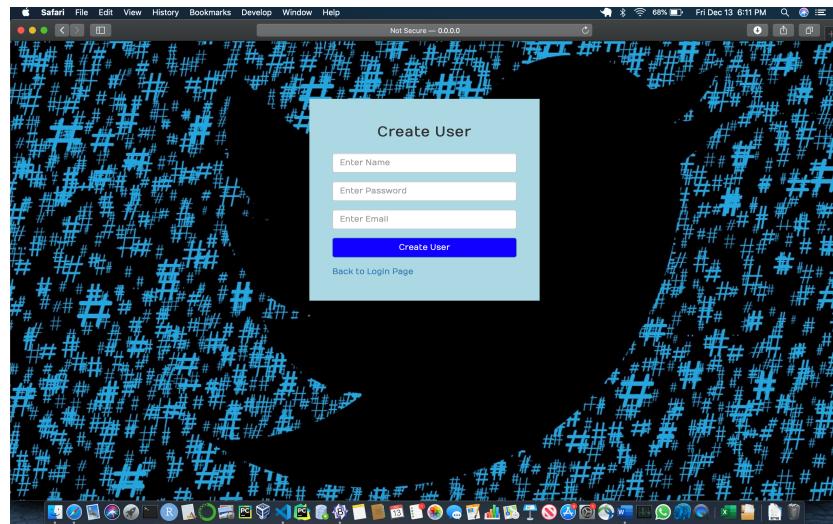
## The Homepage

On entering the url “<http://0.0.0.0:4000>” and hitting enter, you will be greeted with the page below.

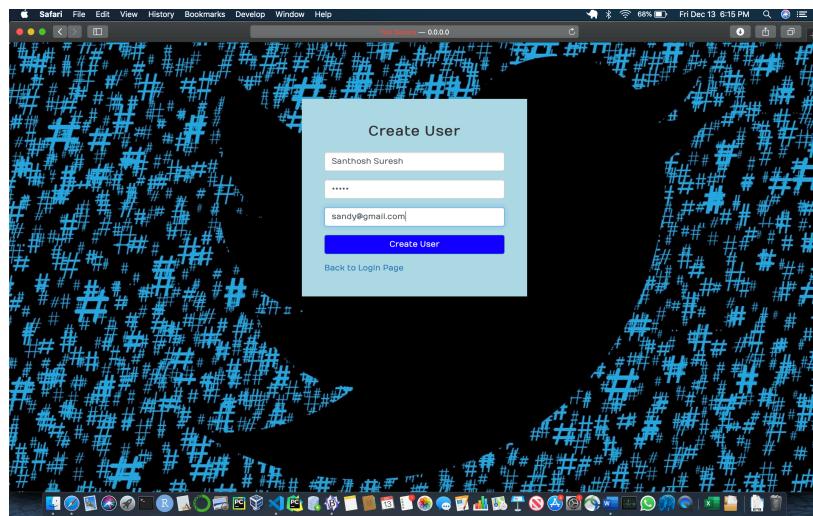


## Functions Available:

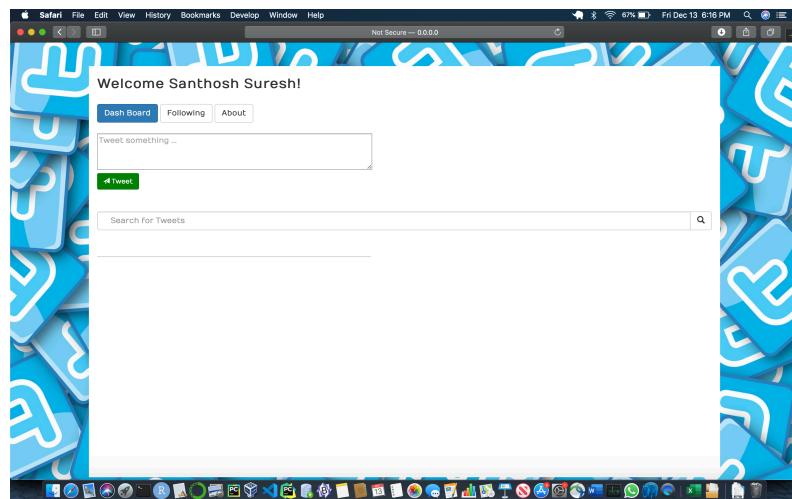
1. Click on the “Sign Up” button on the homepage.
2. The “Create New User” page.



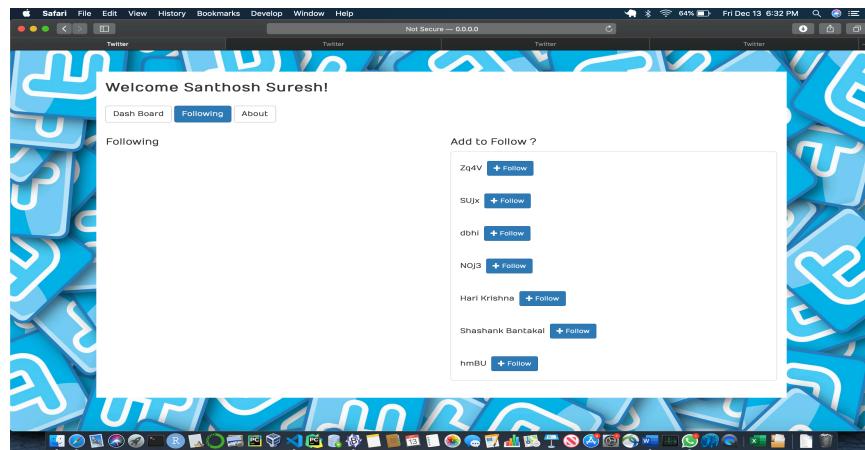
3. Fill in the details and click on “Create User” button.



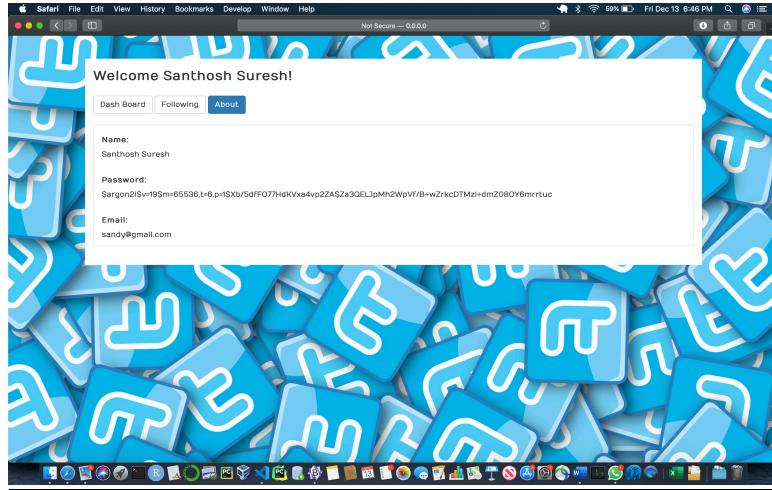
4. The user homepage will be displayed, below is a view of the users **Dashboard**.



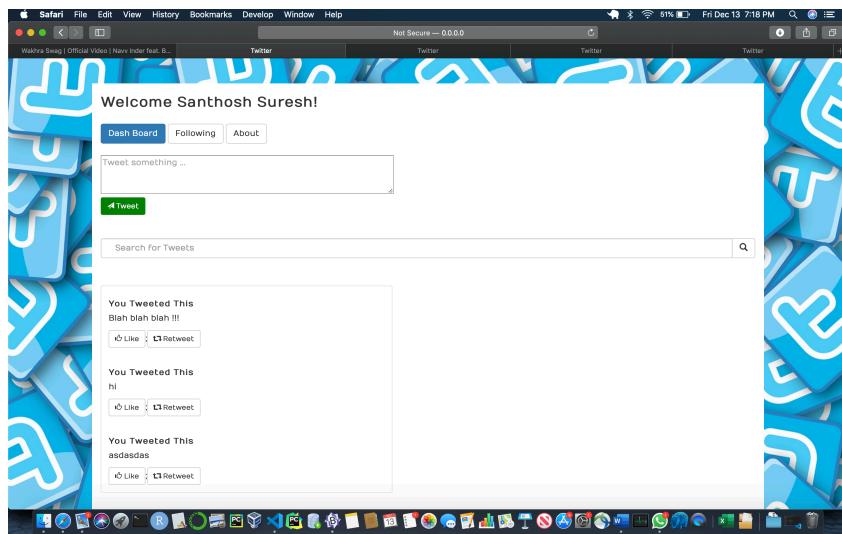
5. few more users (Shashank Bantakal and Hari Krishna) were created similarly.
6. Follow / Unfollow by clicking on appropriate button.



7. The about page, displays basic information about the user. Password has been hashed in the backend therefore won't be displayed in plain text.

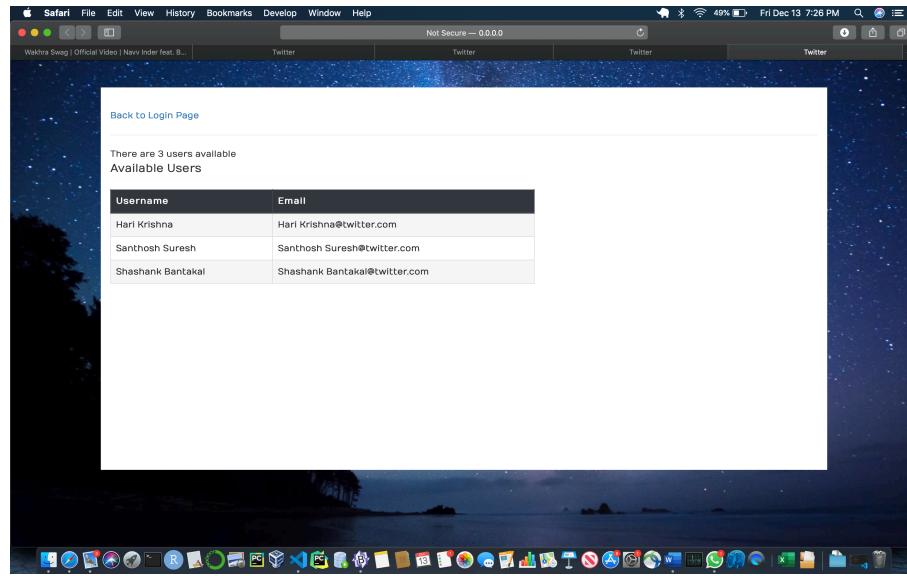


8. Upon sending any tweet, the same would be broadcasted to all the followers.

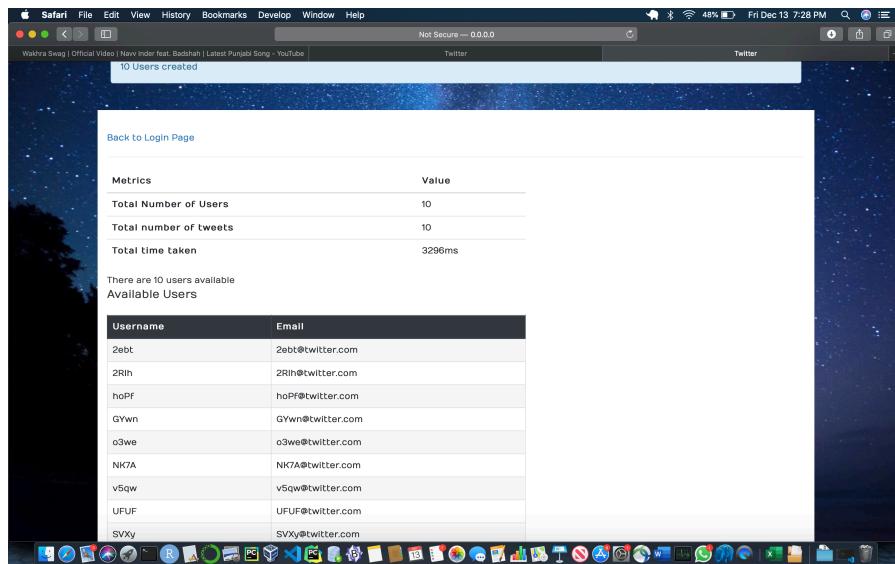


## Simulation

- To simulate user creation and tweet functionality, click on the “Click here” link on the homepage.
- If users have already been created, then the page will display available user details.



- If there are users available, kill and restart the server.
- Navigate to the simulation pages again from the root path.



- To check the details for individual users, login user the username and password (default : “password”)

