ABSTRACT :

The purpose of this project is to write a client application which uses docker container framework onto which various components and applications can be deployed to implement 8 twitter API's. The application is built around the twitter account of the developer. The developer request for the authentication key and token for the twitter account to work on the twitter APIs. Using these tokens and keys, the developer gets to choose from the list of twitter APIs from the twitter website and call these APIs locally. A HTML page is designed as a part of user interface with CSS styling which runs on a local host. This UI contains the list of the APIs that were implemented by the team. Each of these APIs have a unique function to perform. When the client clicks on any of these API's it redirects to a new page which displays the response to the API Request. Whenever the user clicks on these APIs, the tokens and keys get authenticated before displaying the result of these API calls.

Prerequisite :

- Create Twitter App (Twitter Display Name:TheSeekers6) [Get the OAuth credentials to use in the application]
    http://docs.inboundnow.com/guide/create-twitter-application/#toc-0

- Set up the development environment - install Python, Django, Docker and PyCharm CE

Github Repository :

The Seekers Group :
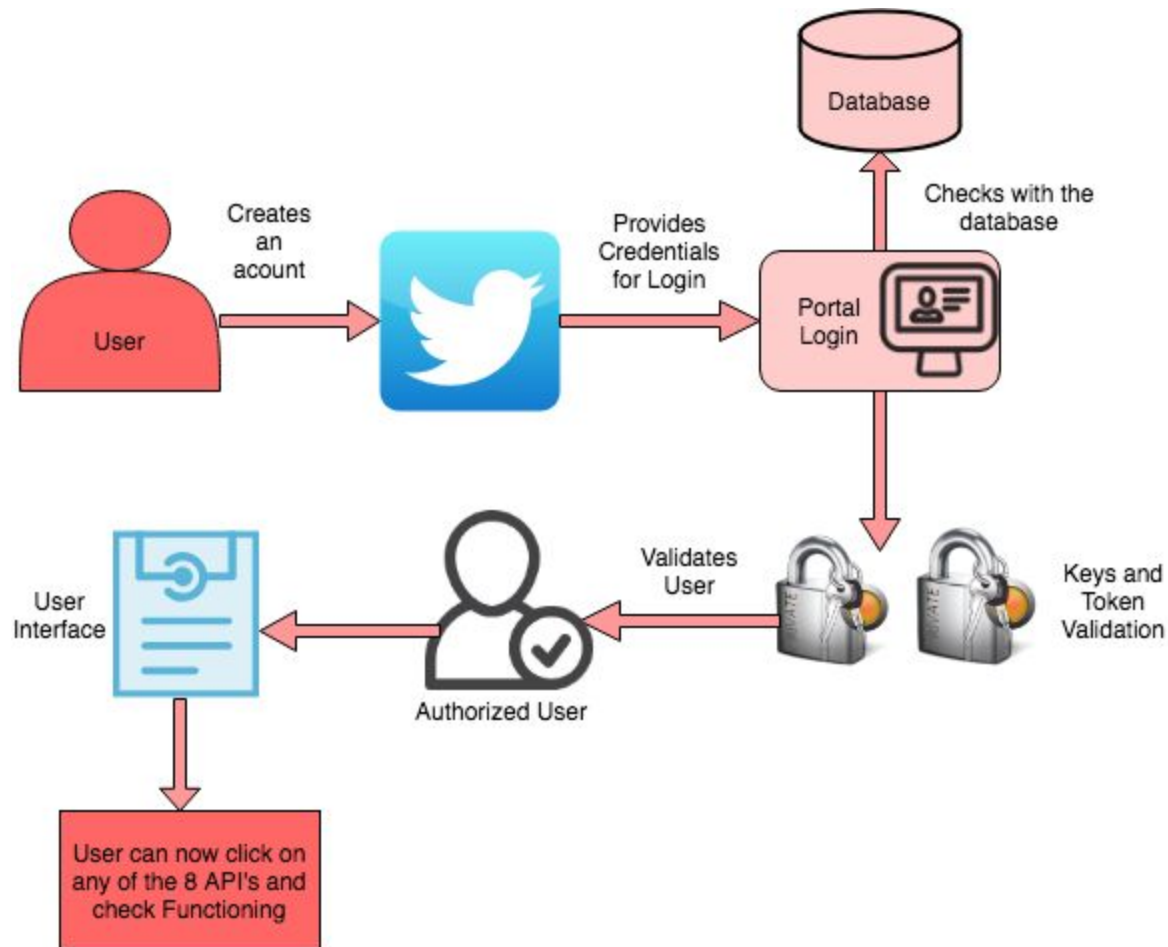https://github.com/vidhishah22/CMPE-272-The-Seekers/tree/master/Docker_TwitterAPI_HW

Tools :

- Docker
- Django
- PyCharm CE

Technologies :

- Python
- HTML, CSS

Architecture Diagram :

API'S Used :

1. Get Status User Timeline

https://developer.twitter.com/en/docs/tweets/timelines/api-reference/get-statuses-user_timeline.html

2. Get Status Mention Timeline

https://developer.twitter.com/en/docs/tweets/timelines/api-reference/get-statuses-mentions_timeline.html

3. Get Account Settings

https://developer.twitter.com/en/docs/accounts-and-users/manage-account-settings/api-reference/get-account-settings

4. Get Status based on Tweet Id

https://developer.twitter.com/en/docs/tweets/post-and-engage/api-reference/get-statuses-show-id

5. Get Friends list

https://developer.twitter.com/en/docs/accounts-and-users/follow-search-get-users/api-reference/get-friendS-list

6. Get Followers list

https://developer.twitter.com/en/docs/accounts-and-users/follow-search-get-users/api-reference/get-followers-list

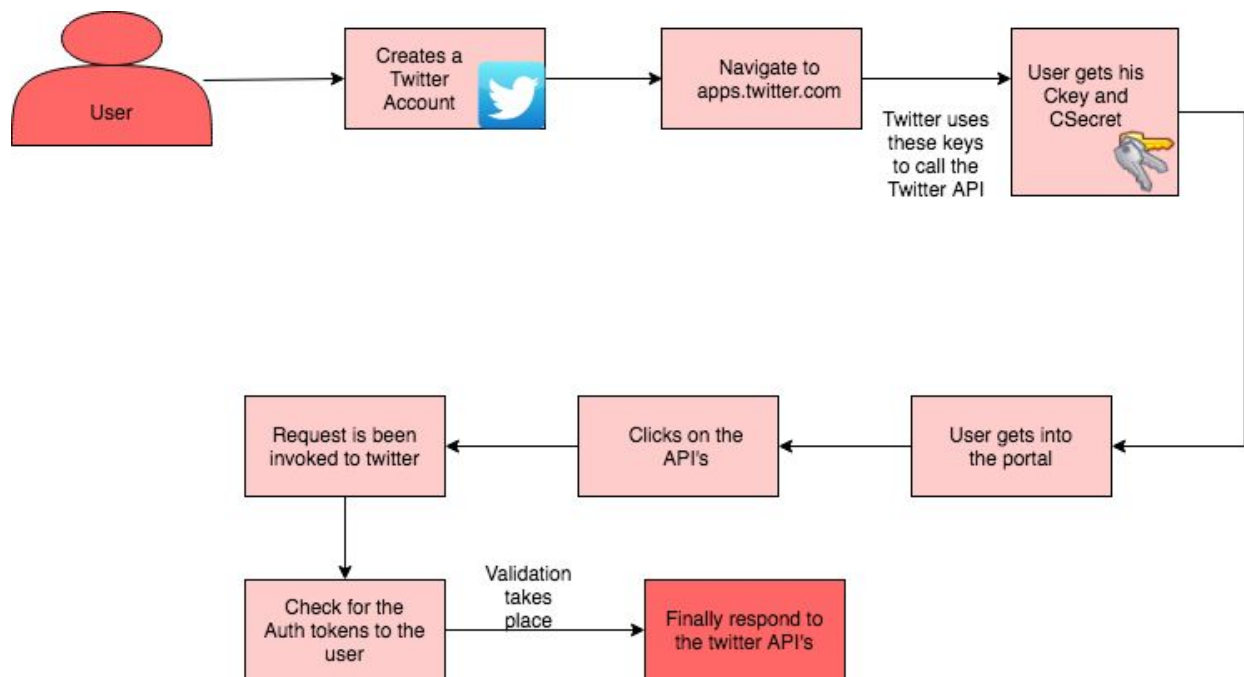7. Get Twitter's Privacy Policy

https://developer.twitter.com/en/docs/developer-utilities/privacy-policy/api-reference/get-help-privacy
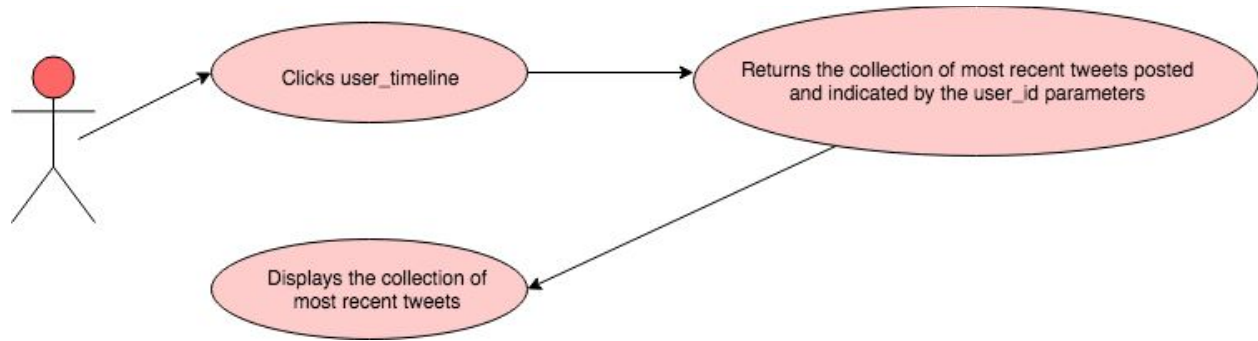
8. Get Twitter's Terms of Service

https://developer.twitter.com/en/docs/developer-utilities/terms-of-service/api-reference/get-help-tos
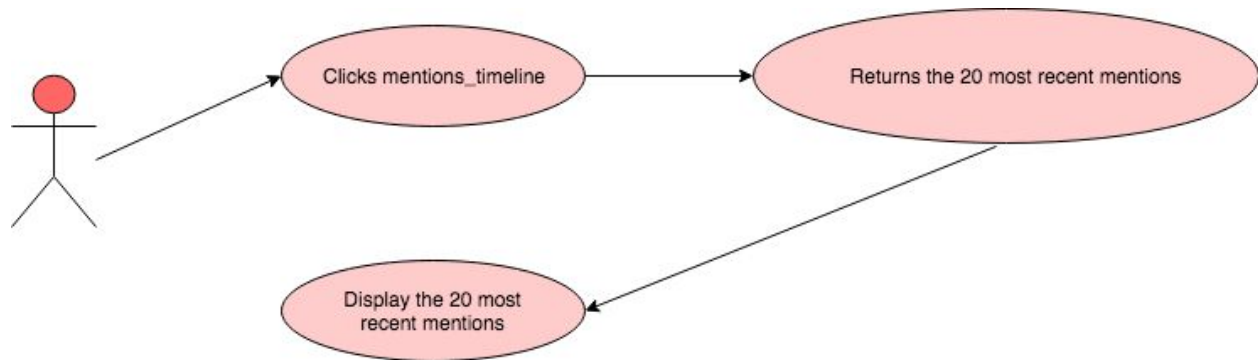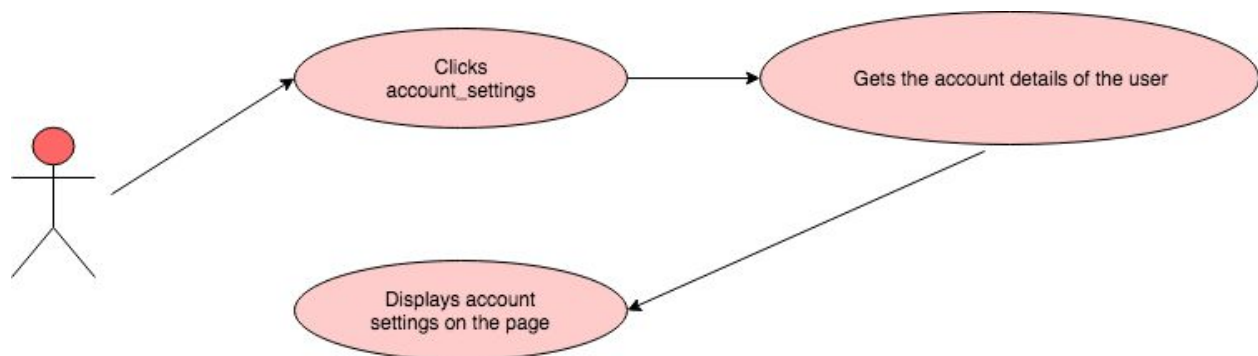
Block Diagram :

Use Case Diagrams :

- *user_timeline***:** This returns the collection of tweets made by a particular user by screen-name.When the user clicks on the user_timeline he is redirected to the page where the response is displayed.
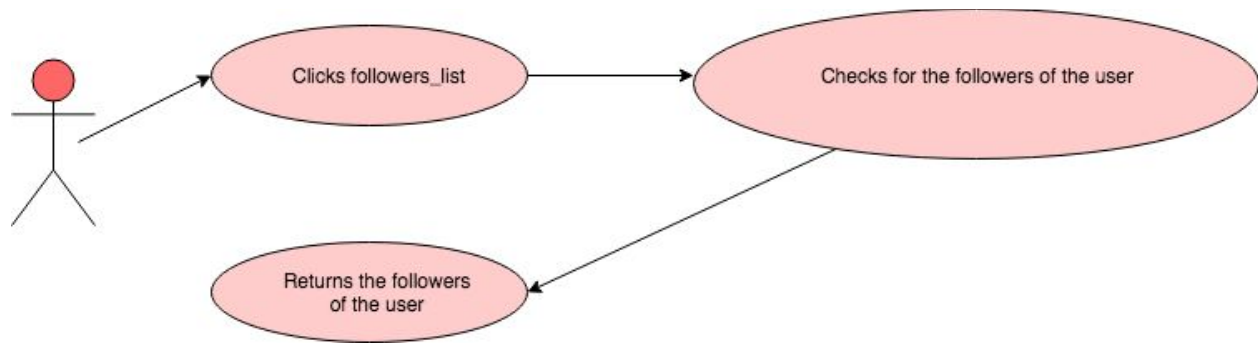
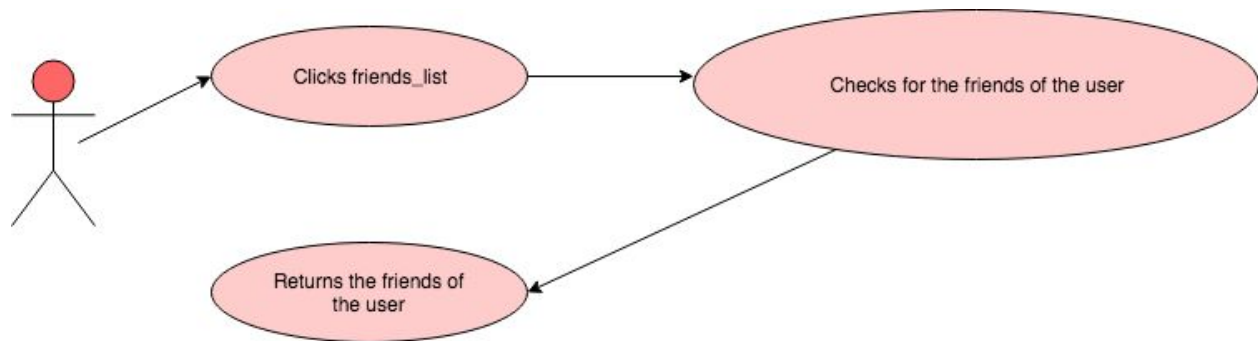- *mentions_timeline:* returns the 20 recent tweets ,this is displayed to the user.

- *accounts_settings:* This gives the account settings of the user (TheSeekers6) , like screen name and other details on the account.
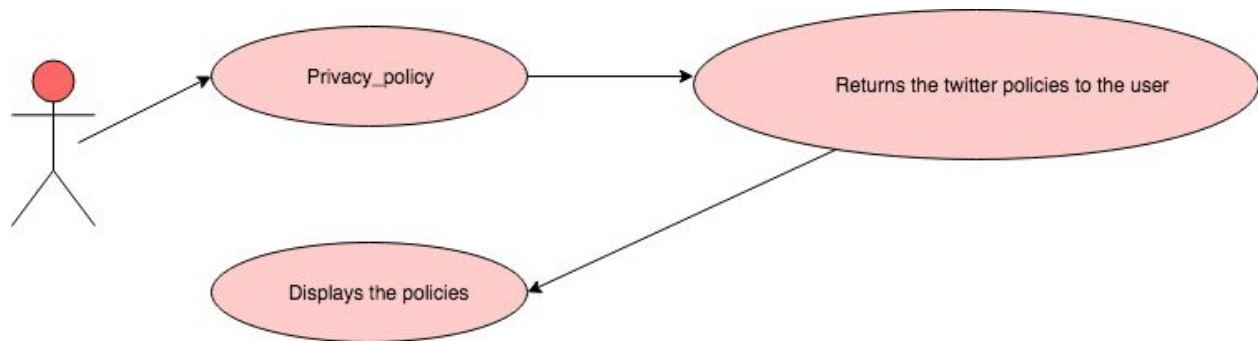

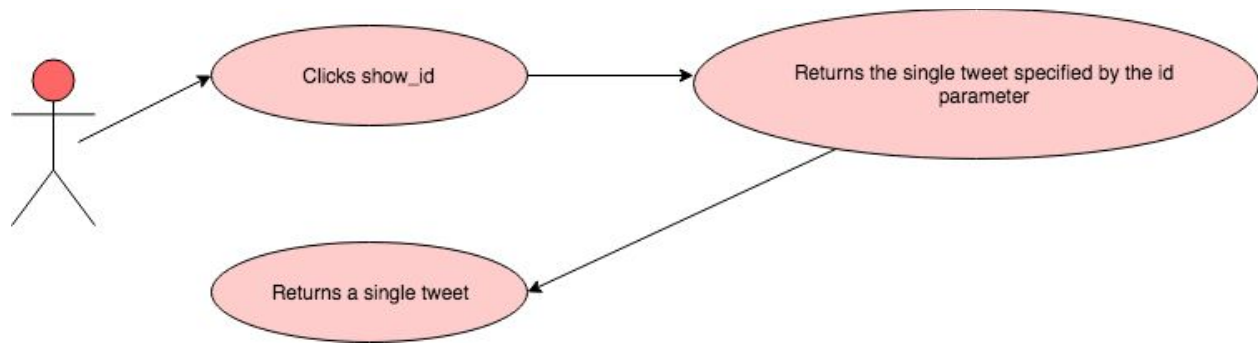- *followers_lists:* Gives the list of users following (TheSeekers6)

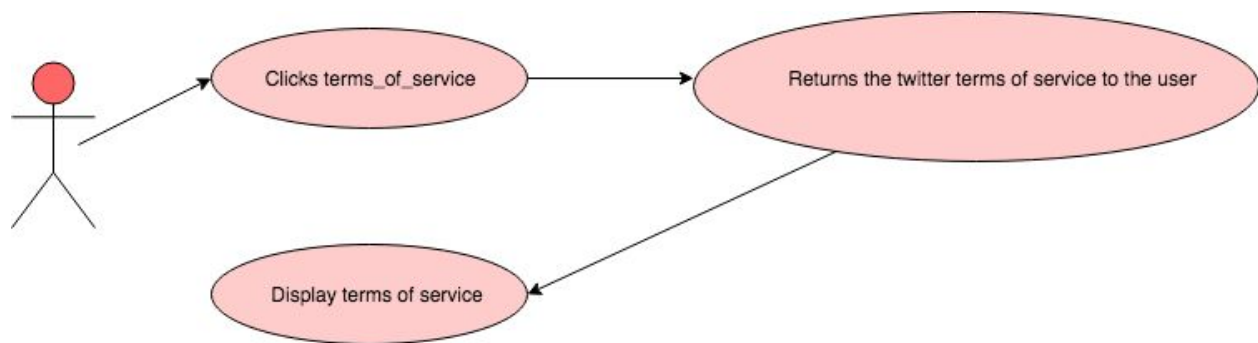- *friends_list:* Gives the list of users friends (TheSeekers6)

- *privacy_policy:* returns Twitter's Privacy Policy

- *show_id:* returns the single tweet based on the id parameter

- Terms of Service: Gives the details of the Terms of Service that Twitter has set.

<u>Test Cases</u> :

TC 1: Verify that mentions_timeline returns a non-empty and 200 OK response with the correct response data. -PASSED
TC 2: Verify that users_timeline returns the a non-empty and 200 OK response -PASSED
TC 3: Verify that account settings of the user returns the account details of the user(owner). -PASSED
TC 4: Verify the show_ids returns the single tweet based on id. -PASSED
TC 5: Verify that friends list returns a non-empty and 200 OK response-PASSED
TC 6: Verify that followers list returns a non-empty and 200 OK response-PASSED
TC 7: Verify that privacy policy call returns twitter's privacy policy. -PASSED
TC 8: Verify that terms of service returns a non-empty and 200 OK response-PASSED

<u>References</u> :
- **https://developer.twitter.com**

- https://www.draw.io
- http://docs.inboundnow.com/guide/create-twitter-application/#toc-0