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| **Software Systems design and Implementation** | |
| **Assignment – Twitter Text Capture** | |
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1. **How does the program work?**

* Twitter API provides various information based on the keywords entered, that act as the criteria
* The program is making calls to these exposed APIs
* Tweepy is the library provided by Twitter to make simple API calls
* The API is called in the library, that contains the url and web service calls
* These web service calls use OAuth for authentication that involves exchange of tokens and secret keys which may have a validity period
* Tweepy provides a cursor, where search keywords can be entered
* Using the cursor, the program is getting the relevant data
* Later the data is analyzed logically to extract knowledge and draw patterns
* The data is arranged properly in a csv file that is meaningful to be used

1. **How do you think you can use this code?**

* The Twitter API can be used for pulling the data as per need, along with applying the filters
* This data can be loaded in the local DB and processed and analyzed to draw conclusions
* This will aid in Data analysis, may be supported by Machine Learning
* Programs can be written to regularly extract such data and analyze it continuously
* This can also include comparing the currently drawn data with previously drawn patterns to learn and draw conclusions
* This library can be directly included in any application, that requires the data from twitter, wrapped in an interface to be used anywhere

1. **Can you think of different scenarios where this code could be used for data collection?**

* Scenario 1: Find a user who has tweeted on a keyword for multiple times
* Scenario 2: Integrate an application with Twitter to authenticate the user as well as pull tweets that can be displayed explicitly on the application
* Scenario 3: Track a user’s activity regularly, may be daily to learn about his/her behavior and perform actions on that basis. E.g. The user’s tweets can express his thoughts, interests, his likings, his work. This can be used for providing relevant Advertises to the user, or to communicate to the user in case a survey is required for that topic
* Scenario 4: Draw graphs of user(s) activity in a particular location or of a community, which will help understand a group of users
* Scenario 5: Track tweets on a keyword, which can be analyzed together to draw conclusions. E.g. Find out how many users like a movie, and how many others do not

GitHub: <https://github.com/NiL-Infinite/twitter_api.git>

The attached program should be imported in eclipse with the PyDev plugin installed.