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PROJECT 1 : PROBLEM 1

TWITTER DATA COLLECTION AND IMPORT

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Problem Description

Write a R script to collect data of interest from Twitter and to save it to disk. Also write a R script to import the data from the disk.

Information Regarding Data

I collected data from Twitter about elections which I am going to use in Problem 5 of this project. I used the TwitteR package available for R for this purpose.

We get 16 fields for each tweet using the above API. An example tweet is shown below.

```
{"text": "Did my American Civic Duty! #EarlyVoting is cool! #election2016...  
https://t.co/9nvDTILVbF", "favorited": false, "favoriteCount": 1, "created": "2016-02-22  
23:51:49", "truncated": false, "id": "701917340120682496", "statusSource": "<a href='\"http://instagram.com/\"  
rel='\"nofollow\"'>Instagram</a>", "screenName": "Pinkkactis", "retweetCount": 0, "isRetweet": false, "retweeted": false, "longi  
tude": "-89.8780975", "latitude": "35.2060013"}
```

eg) Sample tweet in JSON format

I collected tweets for 8 days from February 20th 2016 to February 27th 2016 using keywords like election2016, clinton, trump.

Information about API's Used

TwitterR

It provides an interface to the Twitter web API.

Functions Used:

1. `setup_twitter_oauth()` : Sets up the OAuth credentials for a twitterR session

Usage:

```
setup_twitter_oauth(consumer_key, consumer_secret, access_token=NULL,  
access_secret=NULL)
```

2. `searchTwitter()` : This function will issue a search of Twitter based on a supplied search string.

Usage:

```
searchTwitter(searchString, n=25, lang=NULL, since=NULL, until=NULL, locale=NULL,  
geocode=NULL, sinceID=NULL, maxID=NULL, resultType=NULL,  
retryOnRateLimit=120, ...) Rtweets(n=25, lang=NULL, since=NULL, ...)
```

Example:

```
tweets = searchTwitter("#election2016",n=10000,lang="en", since="2016-02-27",until  
= "2016-02-28")
```

3. `twListToDF()` : This function will take a list of objects from a single twitterR class and return a data.frame version of the members

JSONLITE

A Robust, High Performance JSON Parser and Generator for R

Functions Used:

1. `toJSON()/fromJSON()` : Convert R objects to/from JSON.