Trendwise Analytics

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Twitter sentiment Analysis

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Applications of Sentiment analysis

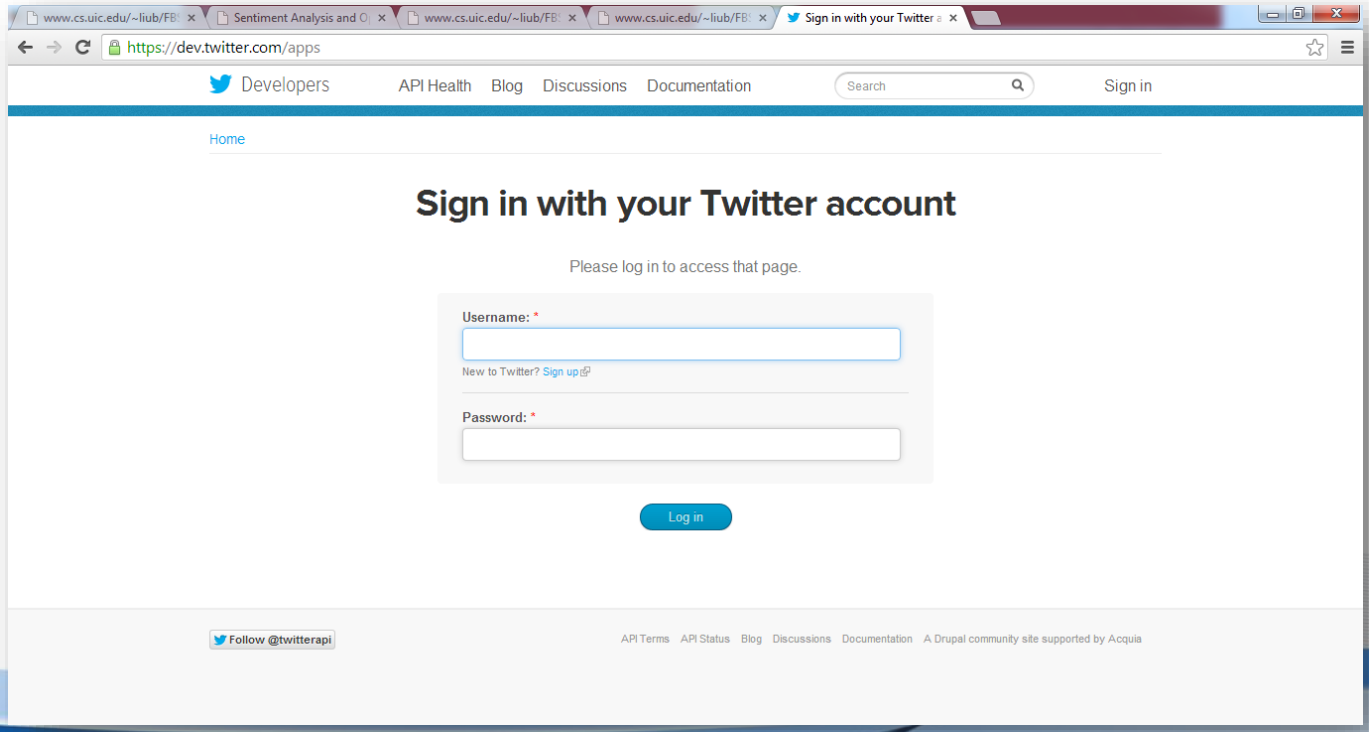
- Thousands of reviews about a new product – Positive or negative?
- Millions of tweets about a new launch –How many of them are positive
- Lot of buzz about a new movie – Hit or flop?
- How have bloggers' attitudes about the president changed since the election?
- Is this customer email satisfied or dis-satisfied?
- The final comments/verbatim text given by the responder

Real-time Twitter Sentiment Analysis

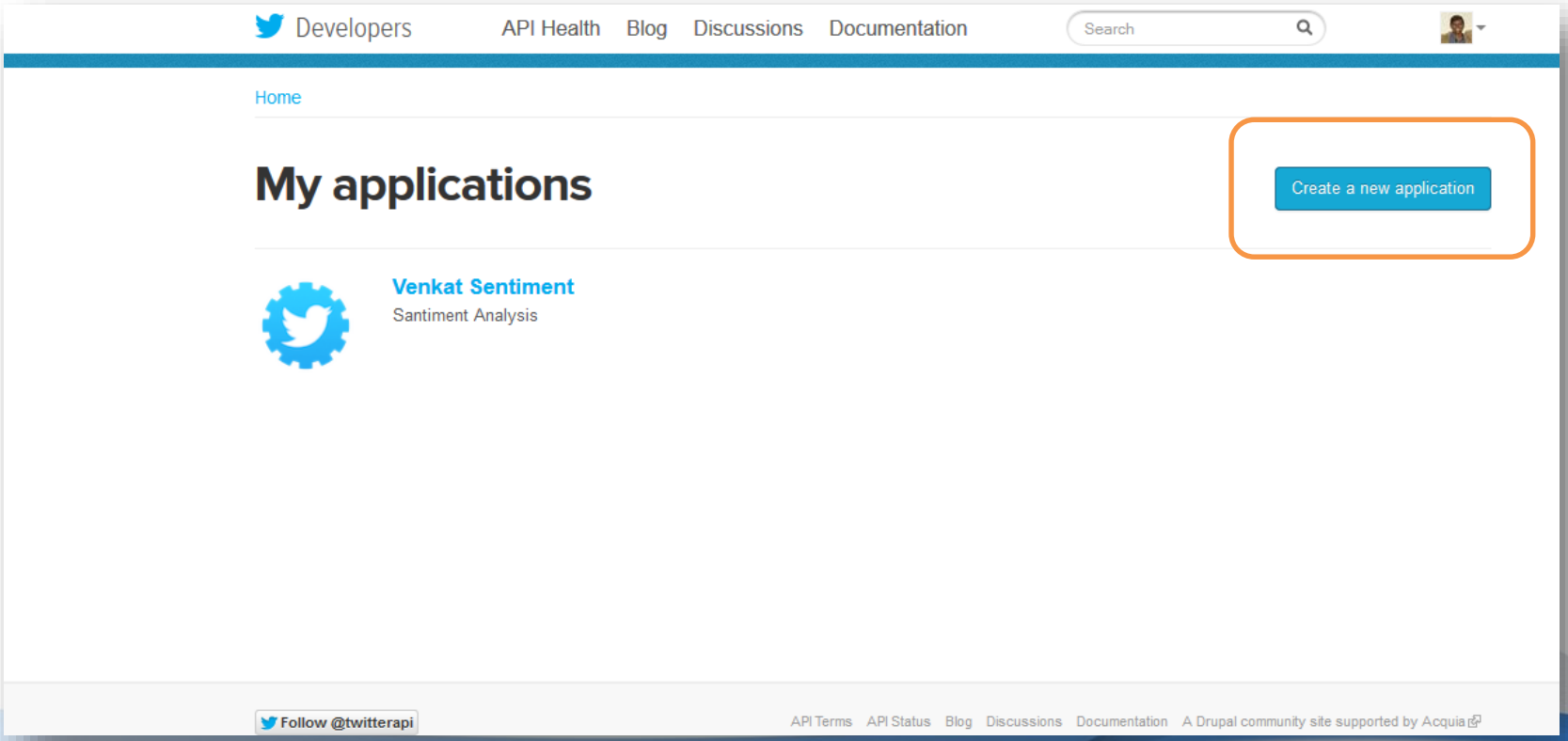
1. Create twitter developer account
2. Collect the data from twitter
3. Cleaning the data
4. Finding the sentiment
5. Creating the word cloud

Create twitter developer account

- Get consumer key & consumer secret from twitter
  - https://dev.twitter.com/apps



Get consumer key & consumer secret from twitter



Install Necessary packages in R

- install.packages("ROAuth")
- install.packages("twitteR")
- install.packages("wordcloud")
- install.packages("tm")

- library("ROAuth")
- library("twitteR")
- library("wordcloud")
- library("tm")
- library(plyr)

R-Specific commands

```
download.file(url="http://curl.haxx.se/ca/cacert.pem",
destfile="cacert.pem")


cred <- OAuthFactory$new(consumerKey='XXXXXXXXXXXXXXXXXXXX',
consumerSecret=' XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX ',
requestURL='https://api.twitter.com/oauth/request_token',
accessURL='http://api.twitter.com/oauth/access_token',
authURL='http://api.twitter.com/oauth/authorize')

#necessary step for Windows
cred$handshake(cainfo="cacert.pem")

save(cred, file="twitter_authentication.Rdata")
registerTwitterOAuth(cred)
```

Collect the data from twitter

```
Tweets_download<- searchTwitter(“Jaiho", n=1500, cainfo="cacert.pem")


Tweets_download<- searchTwitter(“salman", n=1500, cainfo="cacert.pem")

#file for sentiment
Sentiment.text = laply(Tweets_download, function(t)t$getText())
```

Sentiment Analysis

- Final_sentiment_result = score.sentiment(Sentiment.text, pos, neg)
- View(Final_sentiment_result)

- table(Final_sentiment_result$score)
- mean(Final_sentiment_result$score)
- hist(Final_sentiment_result$score)

Word Cloud

- #Word cloud text
- Tweets_download_text <- sapply(Tweets_download, function(x) x$getText())
- #create corpus
- Tweets_download_text_corpus <- Corpus(VectorSource(Tweets_download_text))
- wordcloud(Tweets_download_text_corpus)