

## **WEEK 1:**

### Requirements -

- Get tweets about a subject
  - via Twitter API
- Perform sentiment analysis on tweets
  - via TextBlob Library
- Search and filter for states and show representatives
- Show data for sentiment analysis on the tweets (both numerically/plot)
- Show data analysis for which states tweet the most and which politicians are mentioned the most (both numerically/plot)
- Website UI
- Website functionality
- Testing
  - Test sentiment analysis on sample tweets

Rubric -

Category	Weight	Scoring
Basic Preparation	2	0-1
Cleverness	2	0-2
Rubric for Next Week	2	0-1
Code Submission	4	0-2
Decomposition	4	0-2
Documentation	4	0-2
Effort	2	0-2
Naming	2	0-2
Overall Design	5	0-2.5
Participation	5	0-2.5
Presentation	4	0-2
Twitter API (Shreya)	5	0-2.5
Sentiment Analysis (Shreya)	5	0.2-5
Basic Search and Filter (Gabe)	2.5	0-2.5
Show Data Analysis (Gabe)	2.5	0-2.5
Website Functionality (Gabe)	2.5	0-2.5
Website UI (Gabe)	2.5	0-2.5
Testing (Shreya)	2.5	0-2.5
Testing (Gabe)	2.5	0-2.5

#### Week 2:

- Get facebook comments from a post about a subject
  - via Facebook Graph API
- Perform sentiment analysis on comments
  - via Google Cloud Natural Language API
- Show data for sentiment analysis on the comments (both numerically/plot)
- Create algorithm to combine analyses of data
- Testing
  - Test sentiment analysis on sample comments
  - Test combining algorithm

#### Week 3:

- Get reddit headlines about a subject
  - via Reddit API
- Perform sentiment analysis on comments
  - via Natural Language Toolkit Library/Vader
- Show data for sentiment analysis on the headlines (both numerically/plot)
- Data analysis
  - Analysis for all politicians from each state
  - 2-3 more questions
- Testing
  - Test sentiment analysis on sample headlines
  - Test combining algorithm

#### Week 4:

- Build profile page for each politician
  - Collective analyses from each form of social media
  - Scrape information about the politician from their Wikipedia page
- Perform sentiment analysis on politician's personal twitter page
- Display politician's sentiments towards certain topics/show their most used words?
- Polish UI
- Testing
  - Test sentiment analysis on sample tweets from Donald Trump
  - Create manual test plan

#### *Resources for Us:*

Sentiment analysis: <https://monkeylearn.com/sentiment-analysis/>

Twitter: <https://www.geeksforgeeks.org/twitter-sentiment-analysis-using-python/>

Facebook/Google:

<https://medium.com/google-cloud/sentiment-analysis-of-comments-on-lhls-facebook-page-9db8b3a60eb3>

Reddit:

<https://www.learn datasci.com/tutorials/sentiment-analysis-reddit-headlines-pythons-nltk/>

If we want to scrape approval ratings:

<https://morningconsult.com/2019/01/10/americas-most-and-least-popular-senators-q4-2018/>