**OVERVIEW**

Twit Analysis

What: a tool for businesses, brands and marketing firms to measure the effectiveness of their social media presence regarding product announcements, customer brand loyalty, and overall brand messaging by analysizing the emotional sentiment of users' tweets. We’ll be developing proprietary algorithms and weighted value systems to give scores for various events.

Why: brands need tools to gauge their ROI on social marketing and to otherwise test approaches to their brand narrative strategies.

How: build a web app using node.js, various APIs from twitter and over relevant data gathering APIs.

Testing: katalon for front end testing and node hero for unit testing on the backend

**Goals:** Create a web app that, given parameters, can parse real-time and historical Twitter data and other relevant statistics to measure sentiment analysis for brands using a proprietary algorithm. Measurements can be calculated for brand narratives, a/b testing tweet verbiage, product announcements, general consumer-brand relationships, and more.

**Target Audience:** Brands, marketing firms, public relations firms, advertising agencies, etc.

**Concept Definition: TBD**

**Technologies:**

Node.JS: https://nodejs.org/en/

Twit Package for Node.js: https://www.npmjs.com/package/twit

Weather Data: https://openweathermap.org/api

Sentiment Analysis Tool APIs: https://medium.com/@sifium/top-five-emotional-sentiment-analysis-apis-116cd8d42055

* It looks like several of these use ML and other technologies, unlike the approach below.
* We may prefer to write this ourselves using the info below, but we can make that judgement call based on time / how feature rich these tools are. I still have to research these ones. I've only used the method below in a very simple way. It would also be cool to use "Watson" though!

AFINN-111

http://www2.imm.dtu.dk/pubdb/views/publication\_details.php?id=6010

* This is a list of English words that have been rated with an integer value and were manually labeled by Finn Nielsen. It includes 2477 words and phrases.
* An additional constraint here is with dealing with certain types of language cases. Particular areas of difficulty are with negation handling, inverted word order, adverbs, sarcasm, and multiple brand names in the same tweet. We can either identify these types of tweets with regex and ignore them, or try and deal with them differently.

Polt.ly

* <https://plot.ly/nodejs/>
* “Plotly's Nodejs graphing library makes interactive, publication-quality graphs online. Examples of how to make line plots, scatter plots, area charts, bar charts, error bars, box plots, histograms, heatmaps, subplots, multiple-axes, polar charts and bubble charts.”
* It would be nice to serve up some graphs to display data in a more user-friendly manner after we compute the results.

Bootstrap4

* CSS / responsive design toolkit
* http://getbootstrap.com

Heroku

* I’ve used this to deploy Twitter Bots using Node.js on a server and there is a nice free version you can spin up pretty easily.