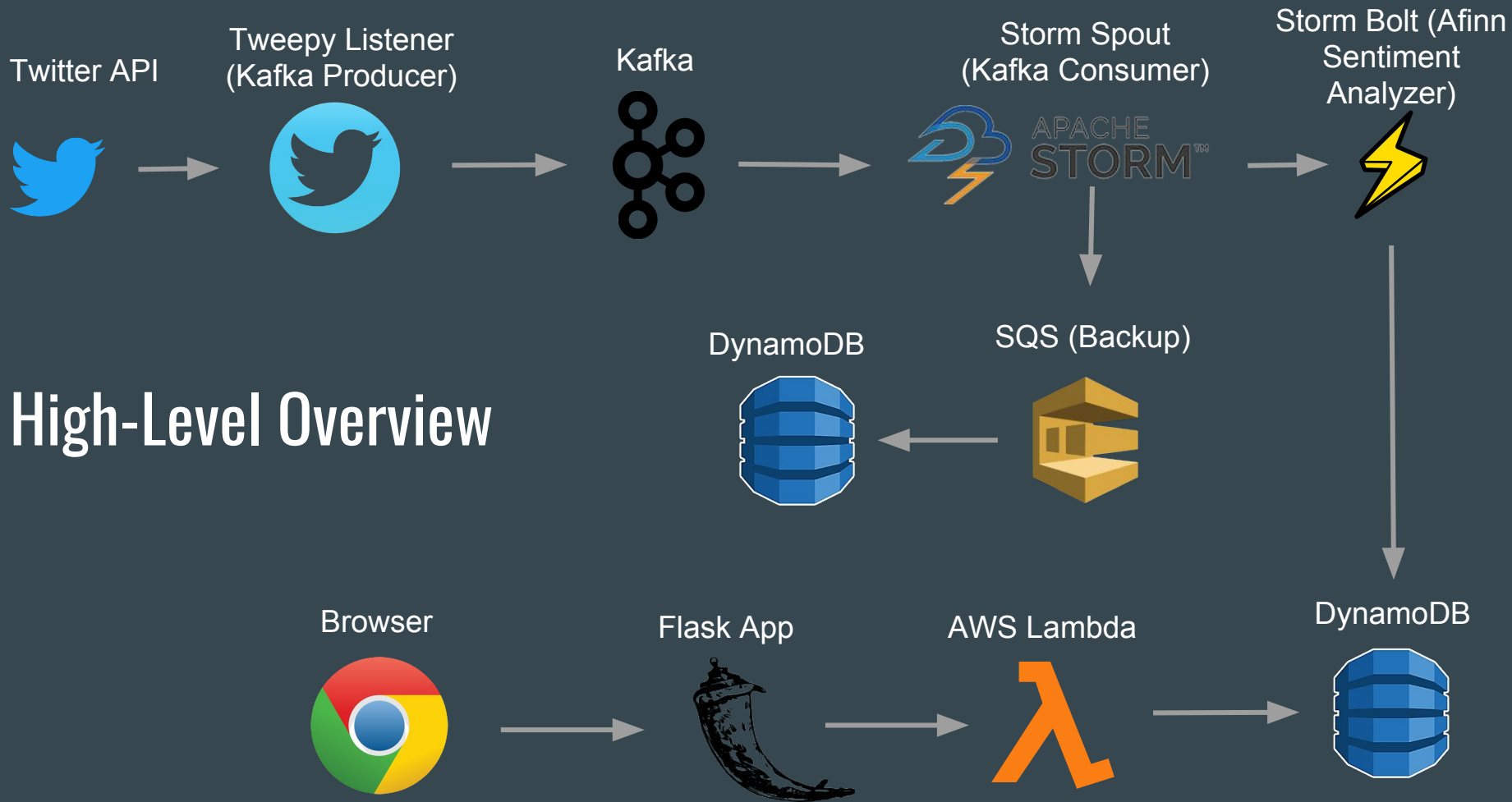


Sentiment Analysis on Donald Trump

...

Sahithi Bonala
Rohit Ganesan
Sreerama Tripuramallu

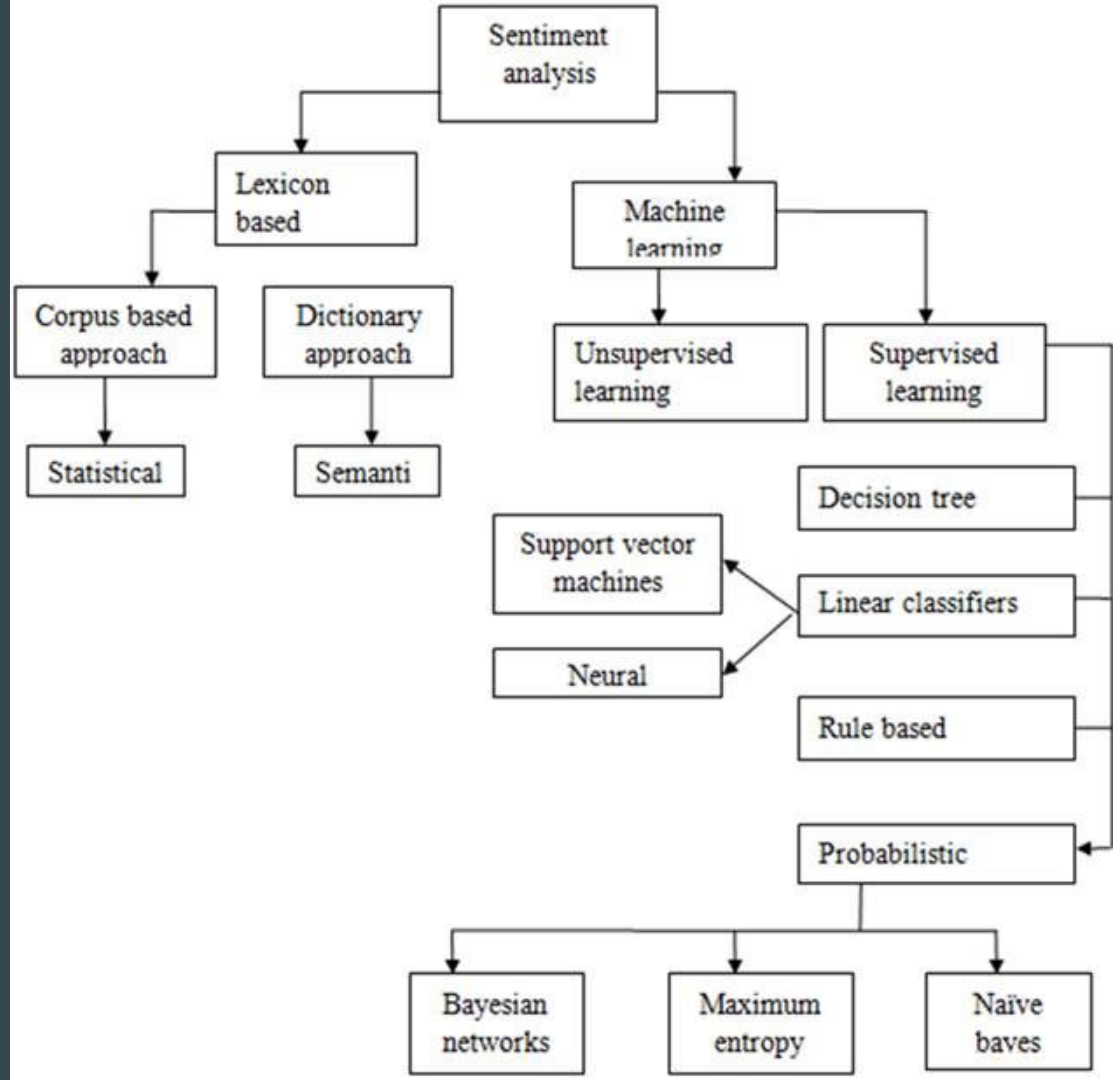


Purpose & Problem Statement

- Improve Lab 8 framework
- Improved Components
 - Sentiment Analysis - Afinn
 - User Interface - D3 Visualization
 - Rest Interface - Lambda Functionality
 - Backup Queuing - SQS
- Analyze President Trump's sentiment on Twitter
- Use Case: Data presented is post Trump speech on Palestine & Israel conflict
 - Date: Thursday, December 07, 2017

Improved Sentiment Analysis

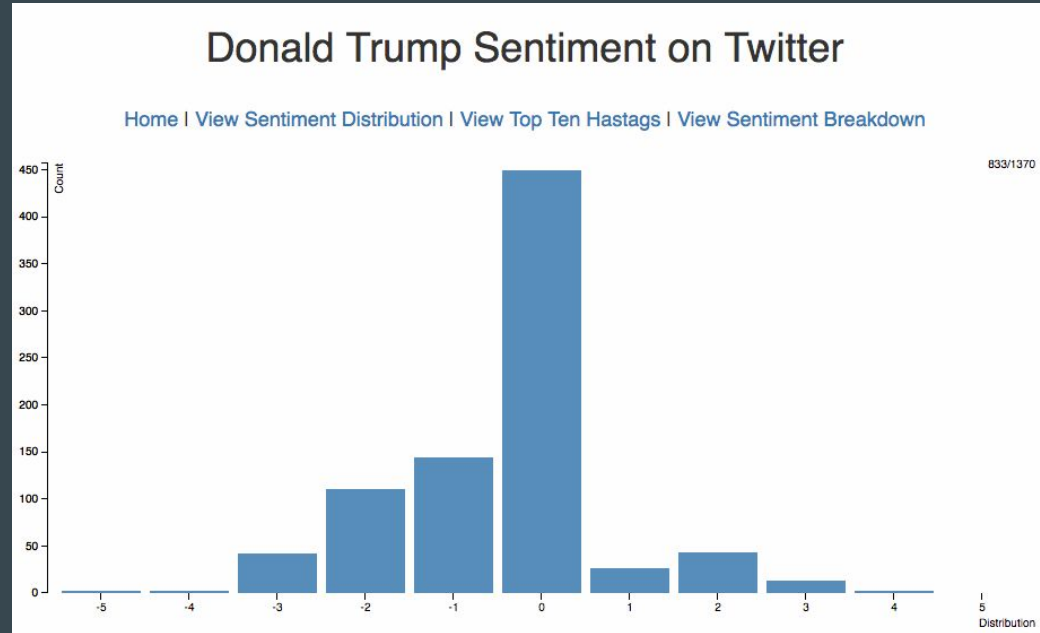
- Lab 8
 - Uses list of 2477 scored words for sentiment analysis
- Final Project
 - Uses AFINN Python library and additional input configurations for advanced sentiment analysis
 - List of 3382 scored words
 - Scores emoticons



D3 Visualizations

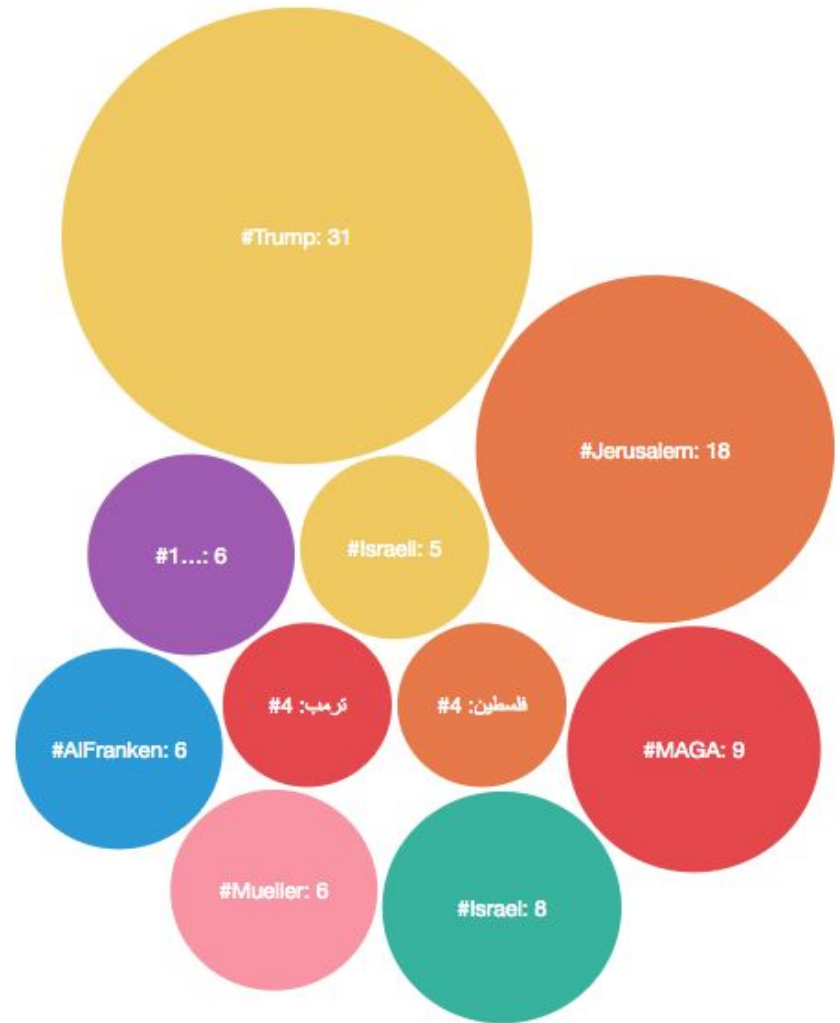
Normalized Distribution Histogram

- Normalization Algorithm
 - Sentiment scores are normalized between -5 and 5
- Utilizes AWS Lambda to obtain information
- Visualizes using D3 histogram and animations
 - Real-time histogram creation



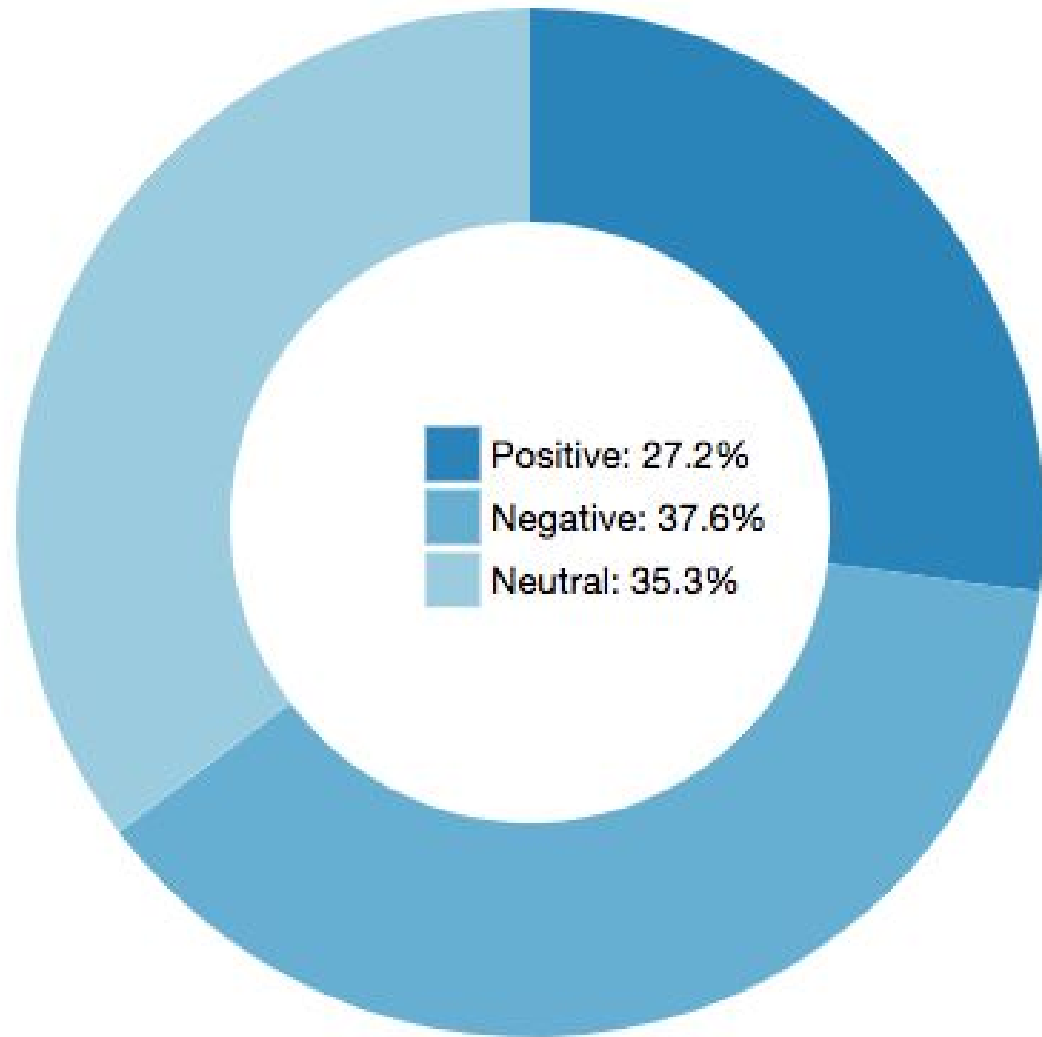
Top Ten Hastags

- Map Reduction for Top Ten Hashtags
- Utilizes Lambda to obtain data
- Visualizes with D3 Bubble Chart



Sentiment Breakdown

- Percentage breakdown of Tweets
 - Positive: Greater than 0.0
 - Neutral: Equal to 0.0
 - Negative: Less than 0.0



Project Evaluation

Test Results - Post Speech

- Sentiment is mostly neutral/negative
- Trending tweets are related to the current Palestine/Israel conflicts

Source Code

- <https://github.com/stripuramallu3/ECE4813FinalProject-TrumpAnalysis>

Obstacles and Tradeoffs

- Sentiment on multiple languages
- Issues with Storm topology
- Initial Machine Learning sentiment analyzer not integrating (NLTK)
- Initial topic was Net Neutrality
 - Did not have depth
 - Many repeated tweets (bots)
 - Inappropriate tweets

Breakdown of Responsibilities

Sreerama	Sahithi	Rohit
Tweepy Integration	AWS Lambda Functions	AWS DynamoDB
Storm/Kafka Integration	Sentiment Analysis Algorithm	Sentiment Analysis Algorithm
Flask Service	Normalization Algorithm	D3 Visualization
D3 Visualizations	D3 Visualizations	