**Project Name: BRANA - BRAND ANALYSIS PLATFORM**

**Problem Definition:**

Each brand/company needs basic strategies for excelling among their competition and become leaders in the market. But, many startups/ small scale companies are unable to understand the actual reactions of people, as a result they are not completely aligned with what the market demands, and how their customers are reacting. Many online, offline surveys conducted are not very honest, does not reflect true customer emotions. Hence, Social Media in today’s world is an excellent and prime means to reach maximum number of people, and the best way to gain maximum *honest* customer reviews from a single place.

Hence, we aim to provide analysis of a brand/product to help the users, i.e., the market strategist, social media marketer, etc. of the company, to understand their market reviews and plan better strategies upon receiving a customer review report. We use Twitter as the social media platform to as it is easily accessible and it gives a wider and better opinion about different brands/products.

**Aims & Objectives:**

1. To extract Twitter data for a particular brand/product.
2. To refine and analyse the tweets related to the brand/product.
3. To perform Named Entity Extraction on the refined tweets, giving brand/product-specific tweets.
4. To perform Sentiment Analysis on the classified tweets, giving a report of the positive and negative reviews of the product.

**Benefits:**

1. It will help the user to understand the audience reaction towards the company’s products.
2. It gives access to customers all over the world, not specified to a specific location.
3. It will help to make better future plans for different kind of products in the company.
4. Understand the market better and improve with respect to other companies.
5. A better customer centric products can be generated or produced after analysing the sentiments and opinions of the customers all over the world.

**Proposed Plan of Work:**

Project would be around Natural Language Processing and Machine Learning, which revolves around the concept of Named Entity Recognition and Sentiment Analysis, using different natural language processing and classifier algorithms.

**Methodology:**

For a particular brand/product, the REST API is used to extract the twitter dataset, which is then refined and the tweets are extracted and stored. Named Entity Recognition and Extraction is then performed on this tweets’ data set to give the refined tweets of the products of a brand or a particular product. These tweets are then used to as input to the Sentiment Analyser which outputs the positive, neutral or negative reactions of the audience.

**Technology:**

1. Python 2.7 as the base language for Named Entity Recognition and Sentiment Analysis
2. Python 2.7, HTML and CSS used for web platform
3. REST API to extract tweets from Twitter
4. Twitter Named Entity Recognition Tools developed by University of Washington
5. Naïve Bayes Classifier for Sentiment Analysis
6. Google Charts for User Report

**Deliverables:**

The final executables will give you a platform to input the brand/product name and result in a report giving the sentiment analysis of the brand/product based on twitter data.

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