

# Project Milestone 3

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## Problem

Social media has a very important role in society. Companies utilize social media to advertise their products and address customer service issues. Also, companies gauge public opinion of their products and services through social media. A person's opinion is freely and honestly stated on any number of social media platforms for the world to see.

People often use a platform like twitter as an outlet. They would have an opinion or a fact they would like to share.

There is a space for a twitter sentiment analyzer to be implemented. While there may be some companies that have implemented this, there is still a need for a more accurate and user-friendly tool.

## Solution

The Twitter Sentiment Analyzer is a tool that will predict the sentiment of a specific tweet after training on a training set of labeled tweets. The goal is to correctly label each new tweet with the correct label. These new and recent tweets will be used to gauge the public sentiment for a specific topic. All this data will be collected and displayed in a format specific to our users.

The Sentiment Score is an arbitrary score the project team is developing to determine public sentiment for a specific topic.

This method of grading a subject is very simple to do through a twitter API (Application Programming Interface).

## Features

## API

```
# Authentication

CONSUMER_KEY = 'NOT'
CONSUMER_SECRET = 'TODAY'

ACCESS_KEY = 'MY'
ACCESS_SECRET = 'FRIEND'

# Authenticate
auth = tweepy.OAuthHandler(consumer_key=CONSUMER_KEY,
                           consumer_secret=CONSUMER_SECRET)

#Connect to the Twitter API using the authentication
api = tweepy.API(auth)
```

**Clean Data**

**Training Data**