

# Twitter Sentiment Analysis for Brands to Understand Customer Opinion

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## 1 INTRODUCTION & MOTIVATIONS

The objective of this project is to glean insights through analysis of Twitter feeds for brands to understand their recent customer opinions and general sentiment. The idea is to gather the customer discussions regarding any given brand on Twitter in order to mine/analyse this information and computationally determine whether the feedback is positive, negative or neutral.

I am interested in this project because I work in a business where we analyse feedback from customers on our key offerings and campaigns. We also use NPS data internally to understand and rate our services. For me, this is personally an interesting challenge to try to implement a program that attempts to achieve a similar result using publicly available data for any company/brand. I believe this will give me more insights into the overall process and also the limitations of using such methods.

## 2 BACKGROUND

For the purpose of this project, I intend to make use of Twitter feeds where opinions are freely exchanged regarding a particular company and their offerings including promotions, marketing campaigns or customer service etc.

## 3 TECHNICAL PLANS

I intend to use Python to implement this project. I will be using the official Twitter API through Python's Tweepy client to get access and fetch tweets. The application would prompt the user to select a brand and a number of tweets to assess the customer sentiment. Based on the analysis, the information will then be displayed to indicate the breakdown of sentiment and also provide more details on the key words used. Essentially, we will cover the following four stages:

- 1) Data Collection & Processing: Twitter data feed extracted through the official Twitter API for any brand
- 2) Data Analysis: The analysis will include training the data model, classification and finally analysing the data for sentiment
- 3) Data Visualization: Insights from data analysis turned into reports and details useful for brands

## 4 FINAL GOALS

My goal is to apply many of the methods learnt in class in order to analyse and present as much data as possible for a brand sentiment analysis. A