



Sentiment Analysis of the Yelp Reviews Using NLP and Classification

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Introduction:

Heading to the fourth project in the T5 Bootcamp, which is called Sentiment Analysis of the Yelp Reviews using both NLP and Classification. Nowadays, businesses make decision-based on customer reviews for improvements. Therefore, this project sheds light on the Yelp dataset using NLP and choosing the best ML model to classify it.

- **Company information:** Yelp is a website which publishes crowd-sourced reviews about local businesses. The company also trains small businesses in how to respond to reviews, hosts social events for reviewers, and provides data about businesses, including health inspection scores.
- **Problem statement:** Understanding customer thinking and emotions in their marketing campaigns is essential for businesses.
- **Value for the company:** Reviews not only have the power to influence consumer decisions but can strengthen a company's credibility. It is also an important factor when it comes to product and brand recognition, customer loyalty, customer satisfaction, advertising, etc.

Dataset:

The Yelp dataset was obtained from Kaggle as a public source [Here](#). It includes *business_id*, *date*, *review_id*, *stars*, *text*, etc.

- **Scope:** The dataset we used contains 1500 records with 10 columns, we have selected 1500 rows from the original dataset for the purpose of avoiding complexity in this project.

Tools:

- **Technologies:** Jupyter Notebook, Python.
- **Libraries:** Pandas, NumPy, Matplotlib, Seaborn, Scikit-learn, and NLTK