

- # Yelp business reviews using NLP

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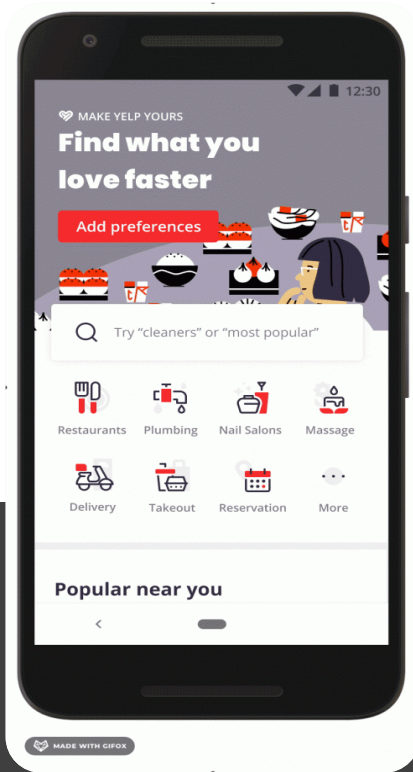
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Recommendation system



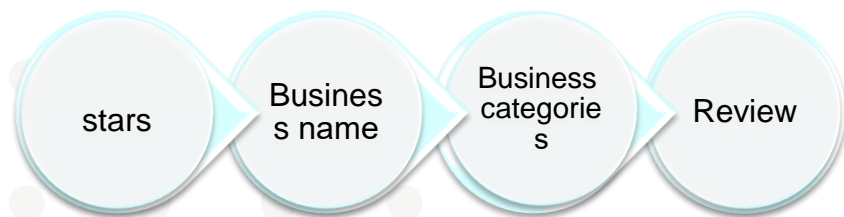
INTRODUCTION :

- Yelp is one of the most popular apps for finding new places. It also offers reviews and recommendations of restaurants, cafes, and more. Natural Language Processing is being used to build a system that can detect the sentiments in cafe reviews.
- Goal: This system can help cafes determine which aspects are positive and which are negative, so they can make improvements. In addition, build a recommendation system that shows similar cafes based on the customer's preferences.

DATASET

The dataset from Kaggle
Consist of nearly 229906 observations and 32
features.

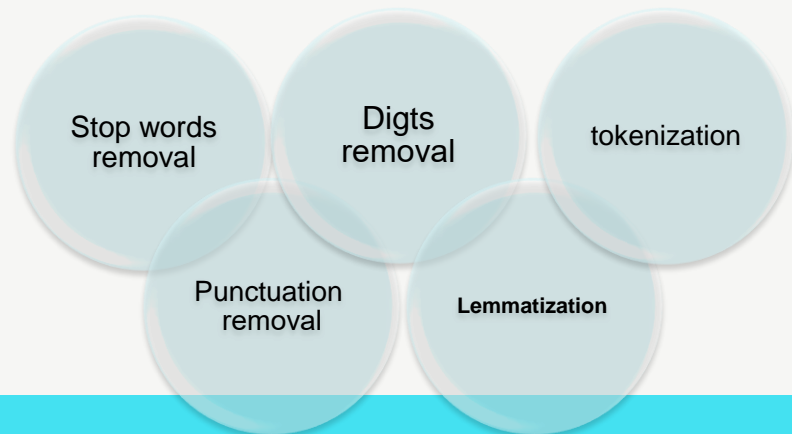
Important features were selected.



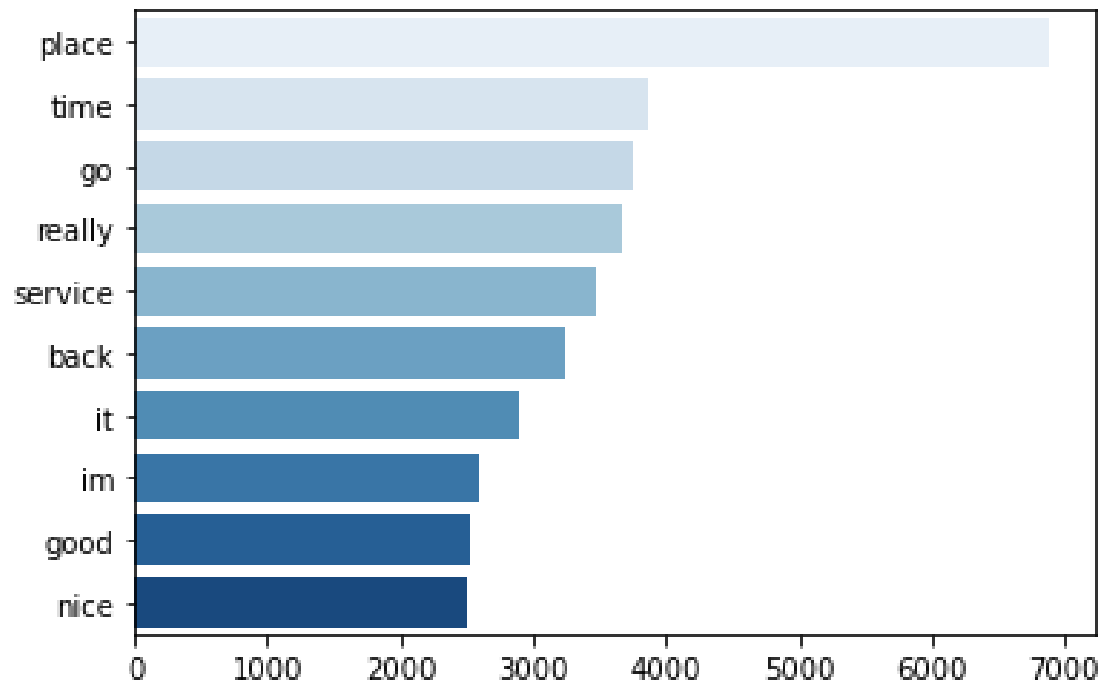
TOOLS



DATA PREPROCESSING



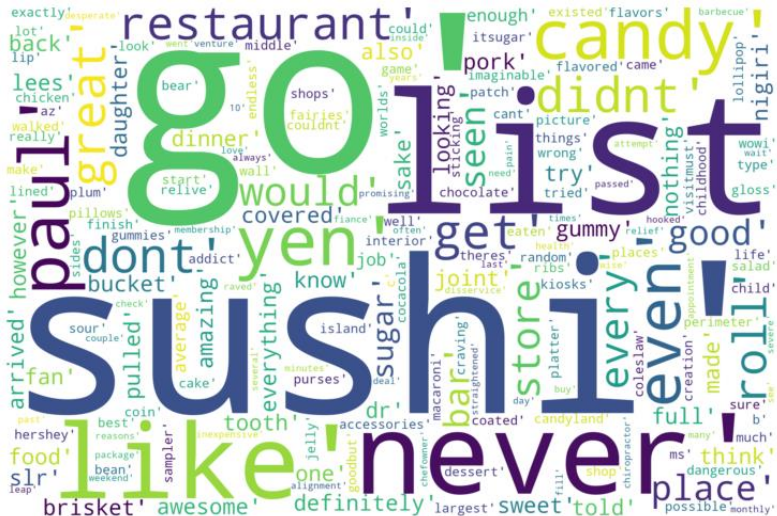
BAR PLOT



Shows Top frequent words in the reviews

WordCloud

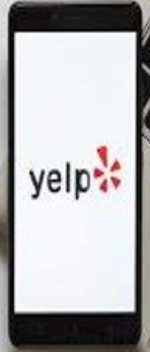
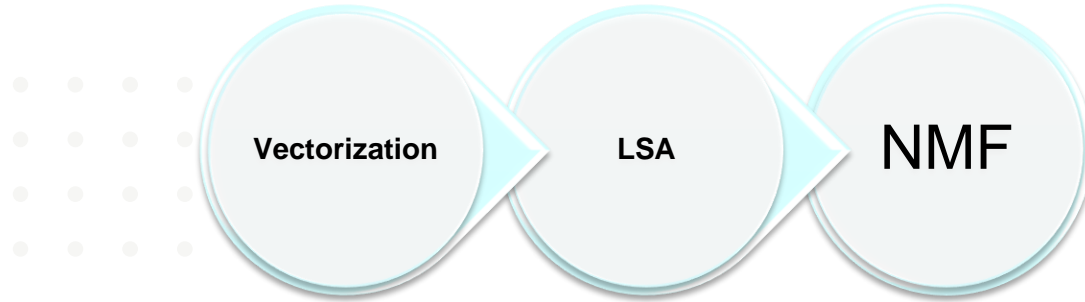
Positive Reviews



Negative Reviews



TOPIC MODELING ALGORITHMS



TOPIC MODELING

NMF

Topic 1 : Place

love, staff, favorite, friendly, awesome, location, store, amazing, wonderful

Topic 2 Service

service, food, friendly, excellent, atmosphere, staff, great, good, fast, quick, restaurant, customer, lunch, slow, amazing, back, prices, clean, nice, fantastic

Topic 3 Food

coffee, breakfast, best, starbucks, shop, morning, iced, friendly, cup, eggs, ever, donuts, free, tea, wifi, latte, staff, nice, toast

LSA

Topic 1 Place

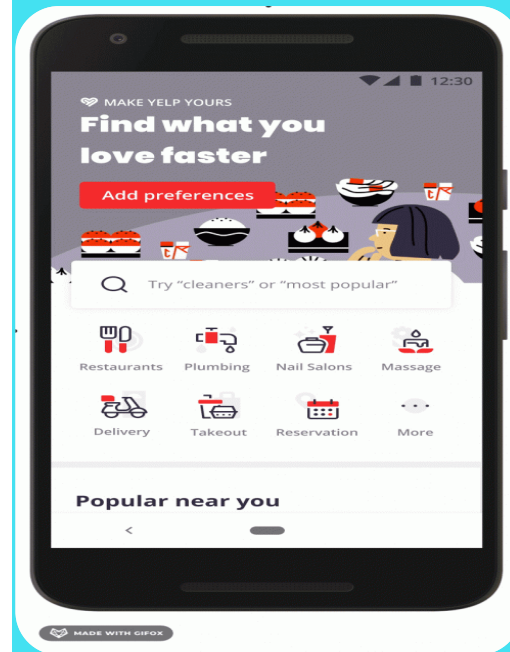
Place, love, staff, bar, store, coffee ,friendly, people ,room

Topic 2 Service

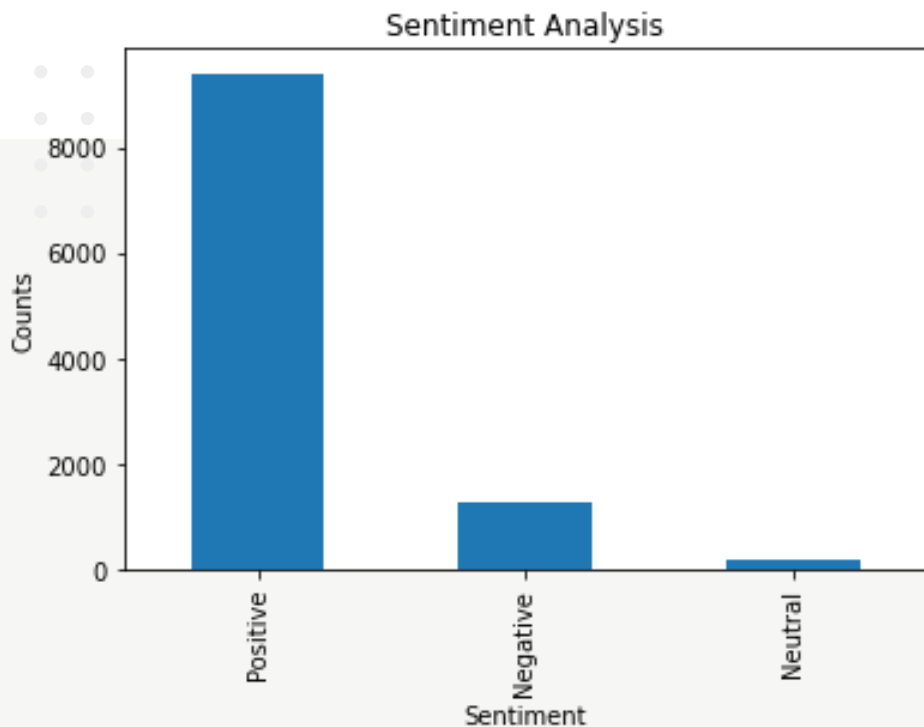
Service, food, friendly, excellent, staff, atmosphere, breakfast, nice, coffee ,lunch

Topic 3 Food

Coffee, sushi ,breakfast, sandwich , friendly, salad ,lunch, fresh, staff, delicious



SENTIMENT ANALYSIS



- Sentiments are feelings, opinions, emotions, likes/dislikes.
- Sentiment analysis is an NLP task that aims to obtain the writer's feelings expressed in positive or negative text.

RECOMMENDATION SYSTEMS

- Cosine similarity

Word	Recommendation
Good place	FnB, Copper Door Bar , Da Vàng , Shangri-La Chinese
Good Service	FnB, Jersey Mike's Subs, Da Vàng , Citizen Public House
Good Food	Dick's Hideaway , California Pizza Kitchen, CherryBlossom Noodle Cafe, Texas BBQ House

Thank You!

Any Questions?