Final Project Restaurant Recommender System

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Motivation

- Favorite restaurant is closed/fully booked
- Want to check out similar places

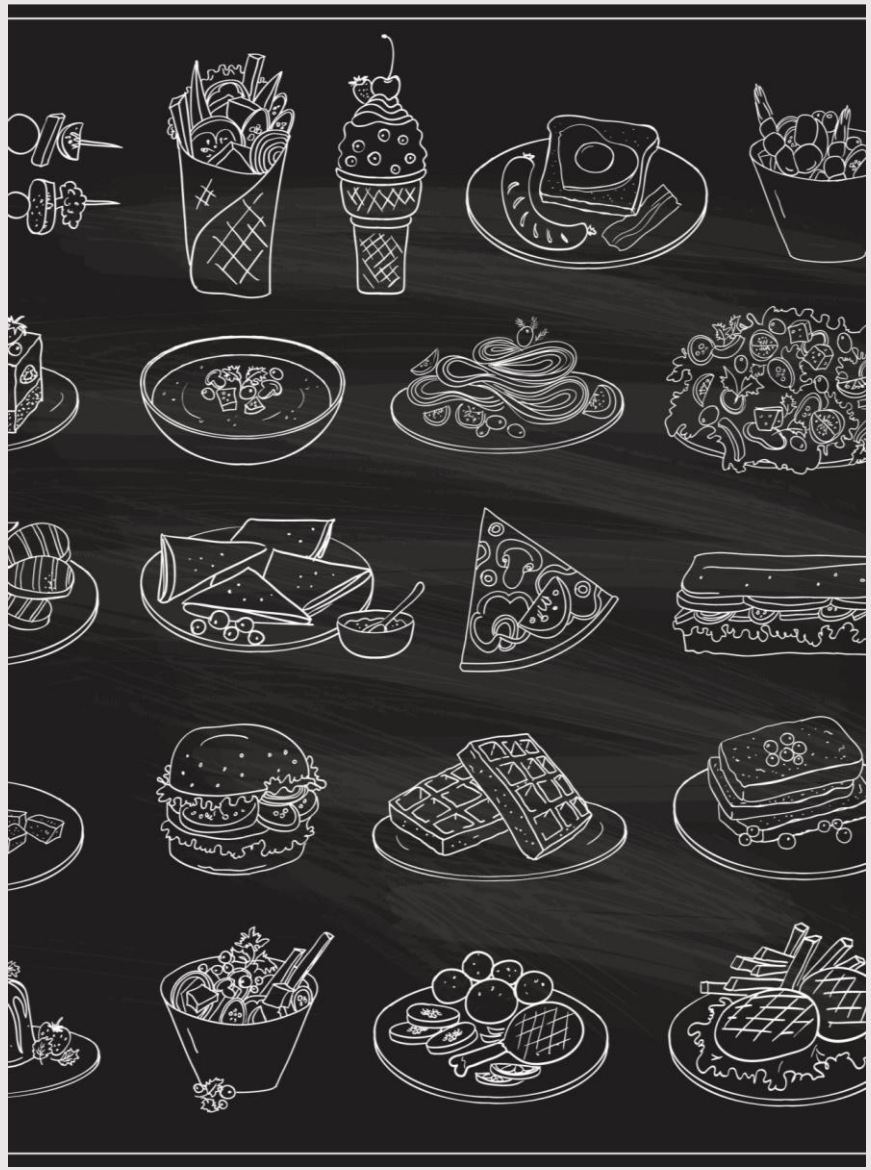
Restaurant Recommender System

Input required:

- Restaurant's name
- Rating tolerance

Output:

- Restaurants with similar categories and review keywords

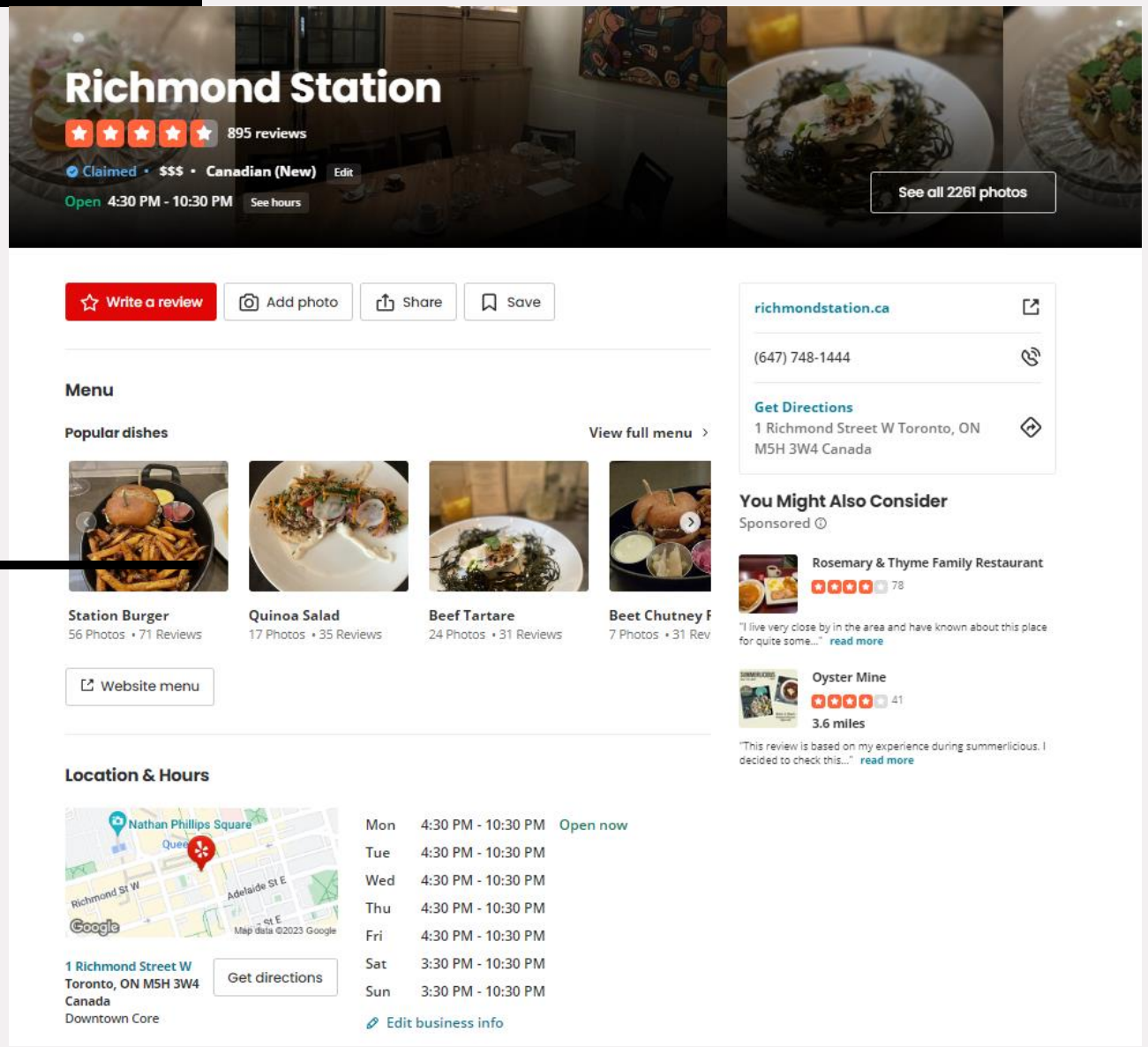


Behind the Model

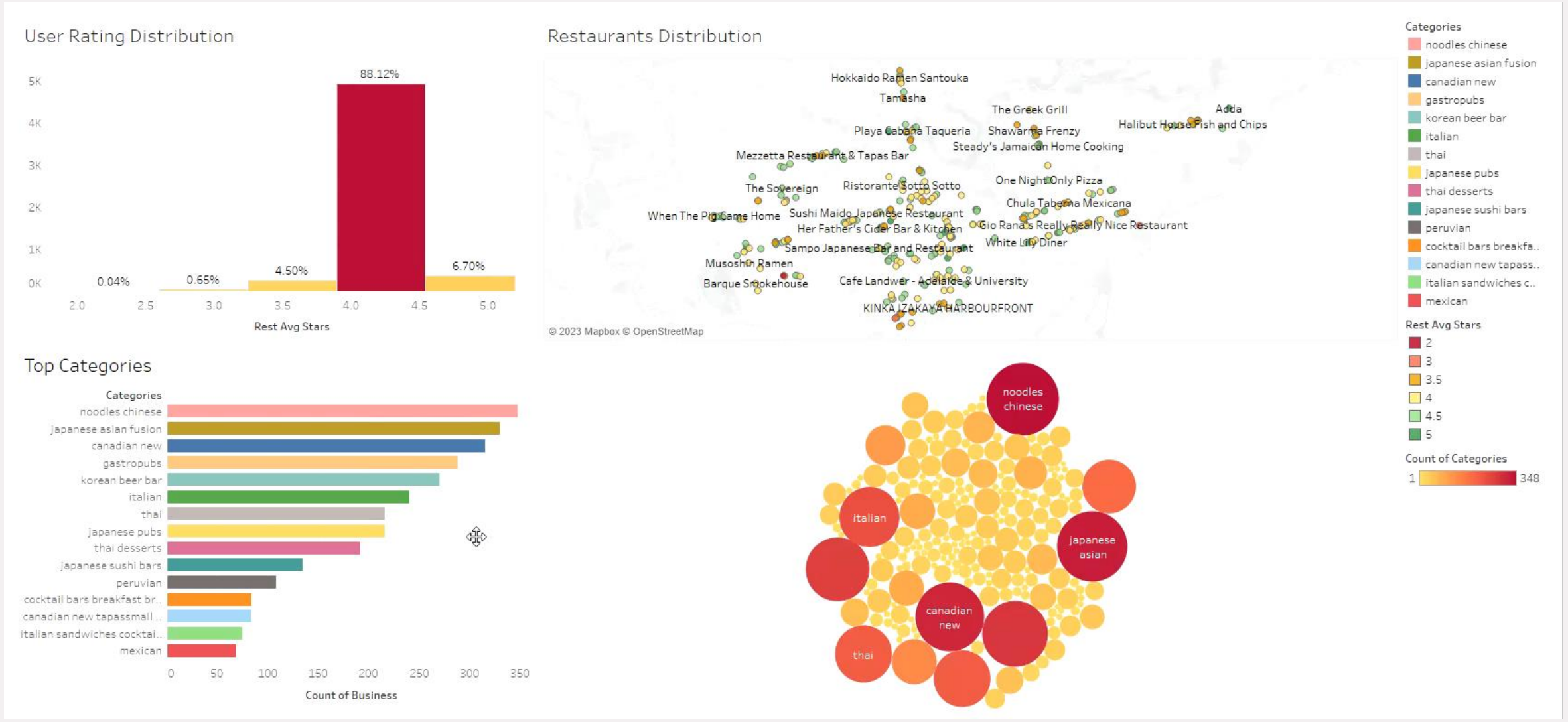
Data Source

Yelp API:

- Business info: business id, name, address, ratings, etc.
- Review info: business id, user id, review id, reviews, user's rating, etc.



Data Overview



Technologies, Languages, Tools and Algorithms

Technologies

Visual Studio Code

Tableau

GitHub

Streamlit

Languages

Python

Tools

Jupyter Notebook

Pandas libraries

Sklearn

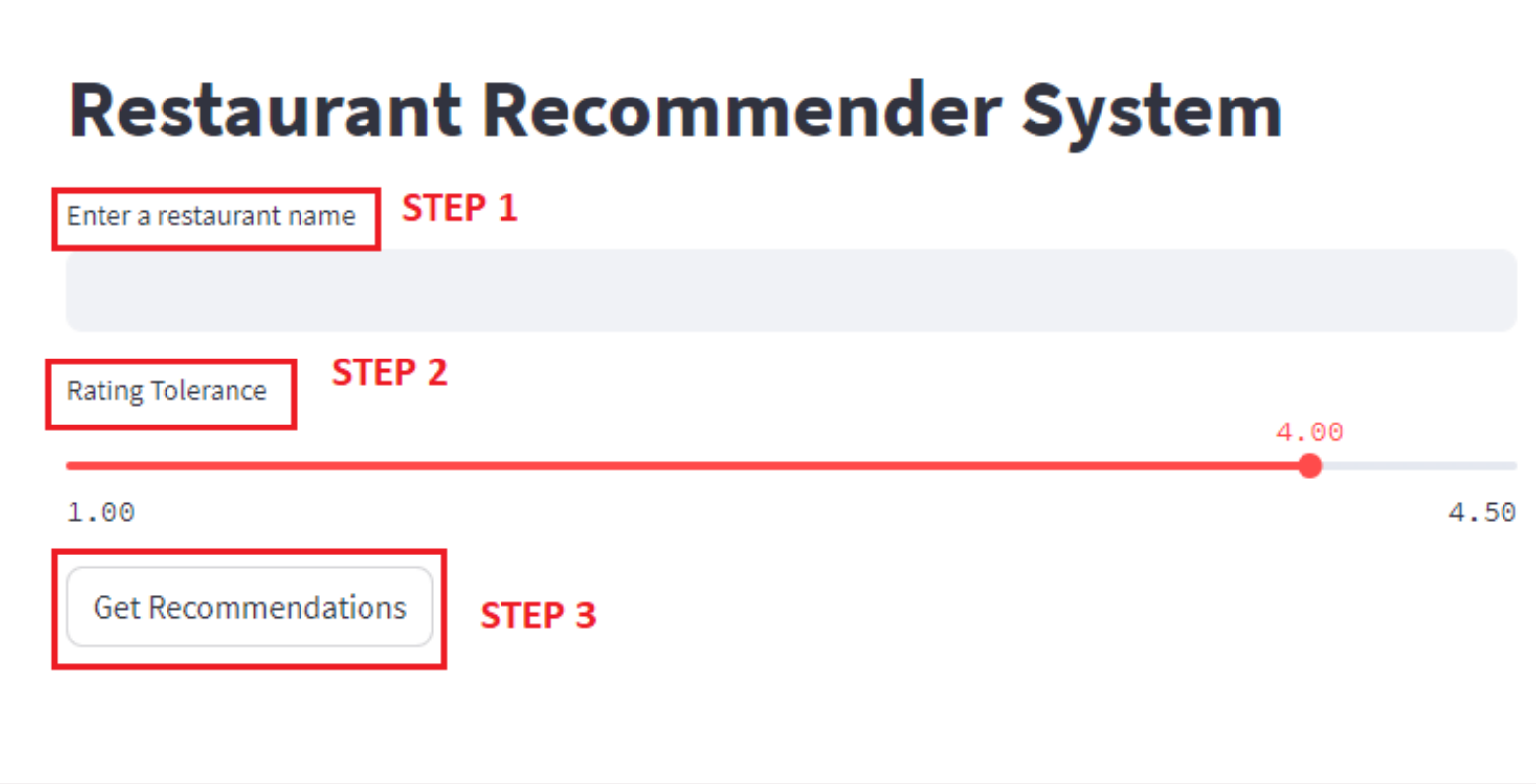
Nltk

Algorithms

TFIDF Vectorizer

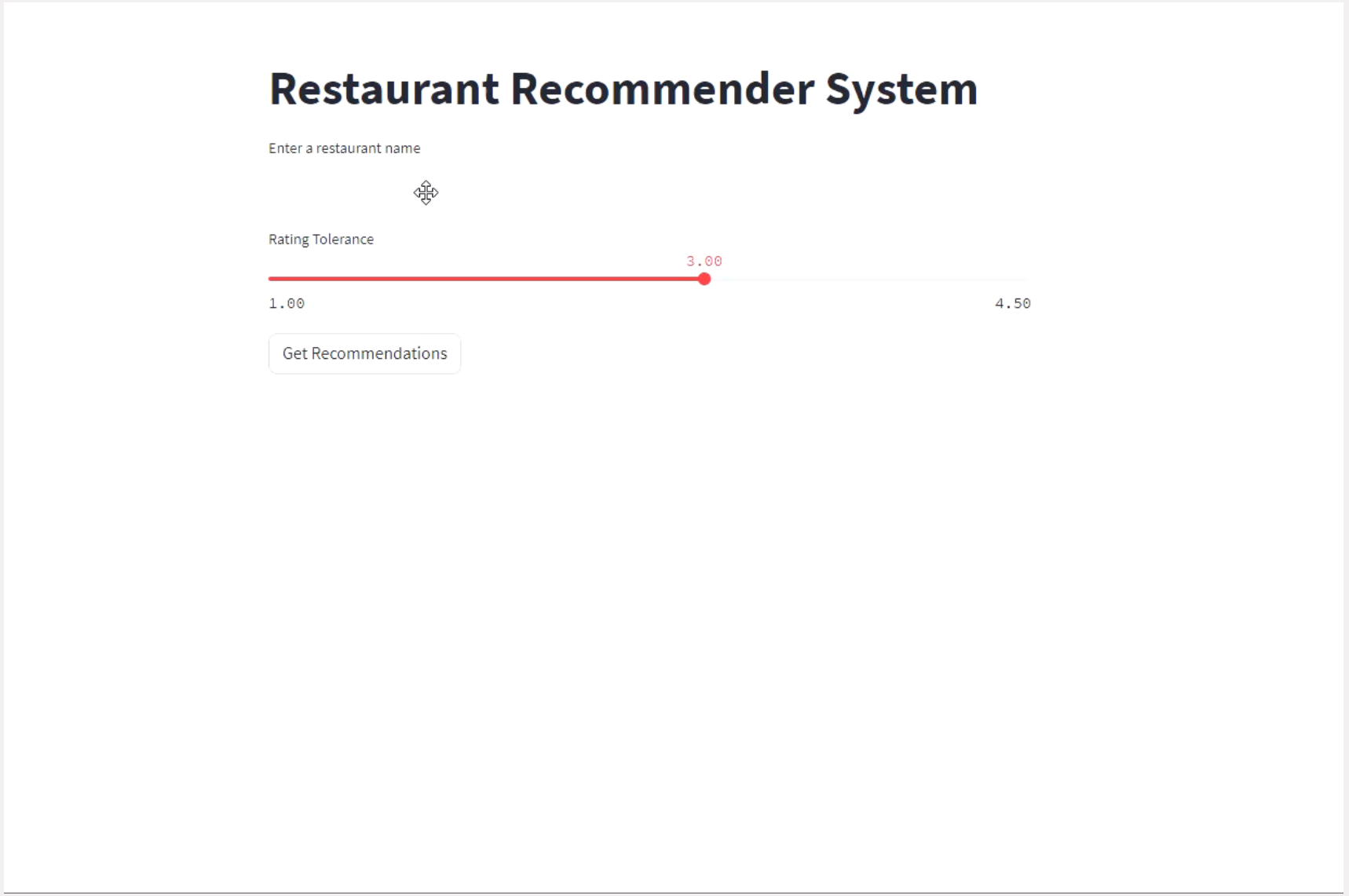
Cosine similarity

Model Training



- Content-based model focuses on matching user preferences with restaurant attributes.
- Analyzes categories, user reviews and ratings to understand the underlying patterns
  - Using TF-IDF to transform keywords into vectors
  - Using Cosine-similarity score to compare and classify the outcome

Demo Run


Restaurant Recommender System
Enter a restaurant name
Rating Tolerance
3.00
1.00
4.50
Get Recommendations

Future Development

Use bigger data set that can enable more search power

Explore advanced recommendation techniques to enhance the recommender system. Such as collaborative or hybrid models, deep-leaning model.

Thank you