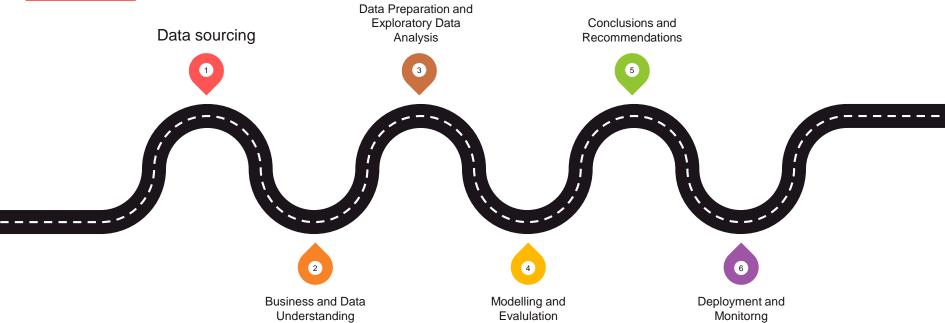




# Roadmap





## BUSINESS UNDERSTANDING

- The U.S. dining industry is diverse, yet finding restaurants that match specific preferences can be challenging due to a lack of centralized recommendation platform
- Our solution offers tailored dining suggestions, enhancing the user experience and supporting local businesses.



#### PROBLEM STATEMENT

- Users struggle with generalized recommendations
- There is a lack of real-time, locationspecific suggestions.

### **MAIN OBJECTIVE**

 To develop an intelligent system providing personalized recommendations based on user preferences and location





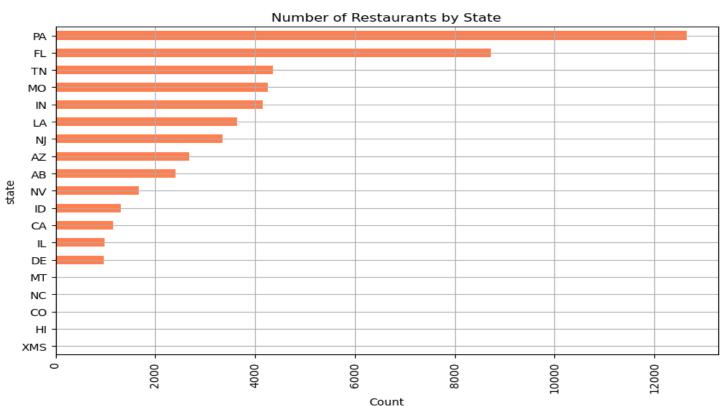
## **DATA UNDERSTANDING**

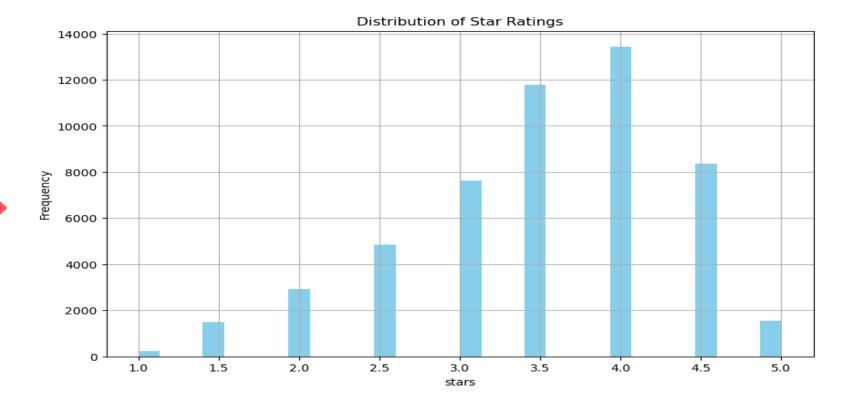
 Data Source: Yelp database for business and user review data.

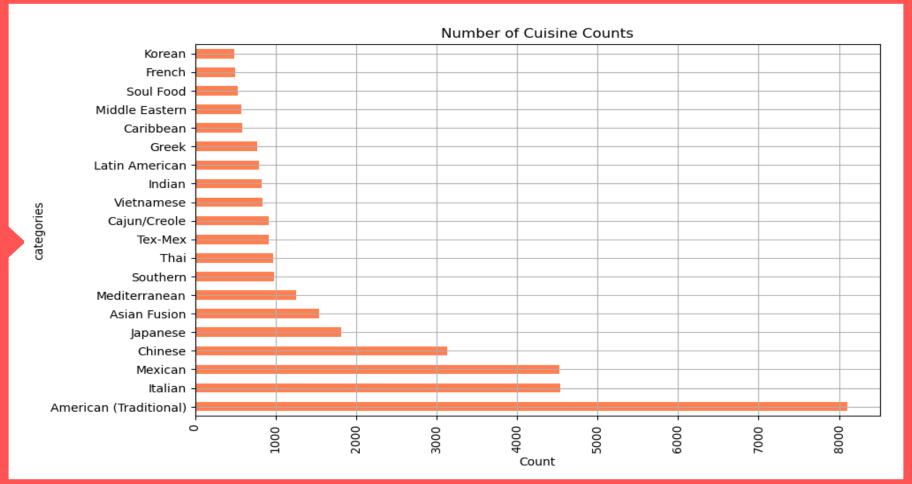
- I. Restaurant Data: 52,286 restaurants, 14 columns.
- **II. Review Data:** 2.55M reviews, 4 columns.

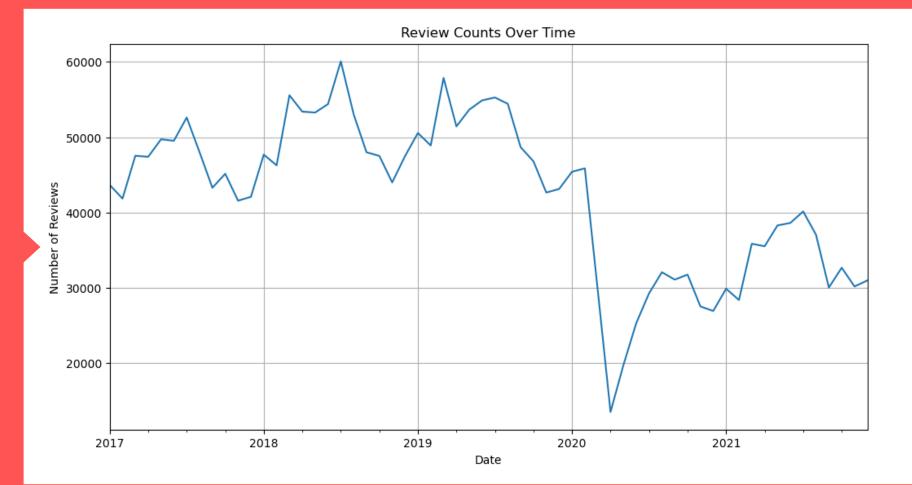


### **OBSERVATIONS AND FINDINGS**









## **MODELING APPROACH**

#### **Content-Based Filtering**

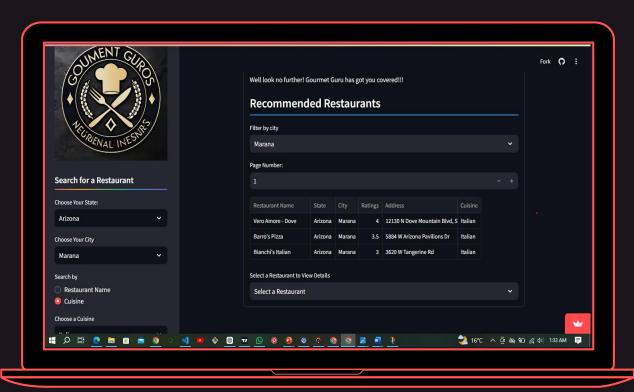
- Utilizes restaurant features and attributes.
- Implements cosine similarity and TfidfVectorization.

#### **Collaborative Filtering**

- Uses user ratings with Surprise library.
- Models: NormalPredictor, NMF, SVD, and tuned SVD.



## WEB APPLICATION



### **RECOMMENDATIONS**

- Prioritize Major Markets.
- Tailor Recommendations to Market Size
- Cuisine diversification.

### **FUTURE WORKS**

- Expand coverage to more regions.
- Enhance user personalization features.
- Variability of Cuisine choices



