

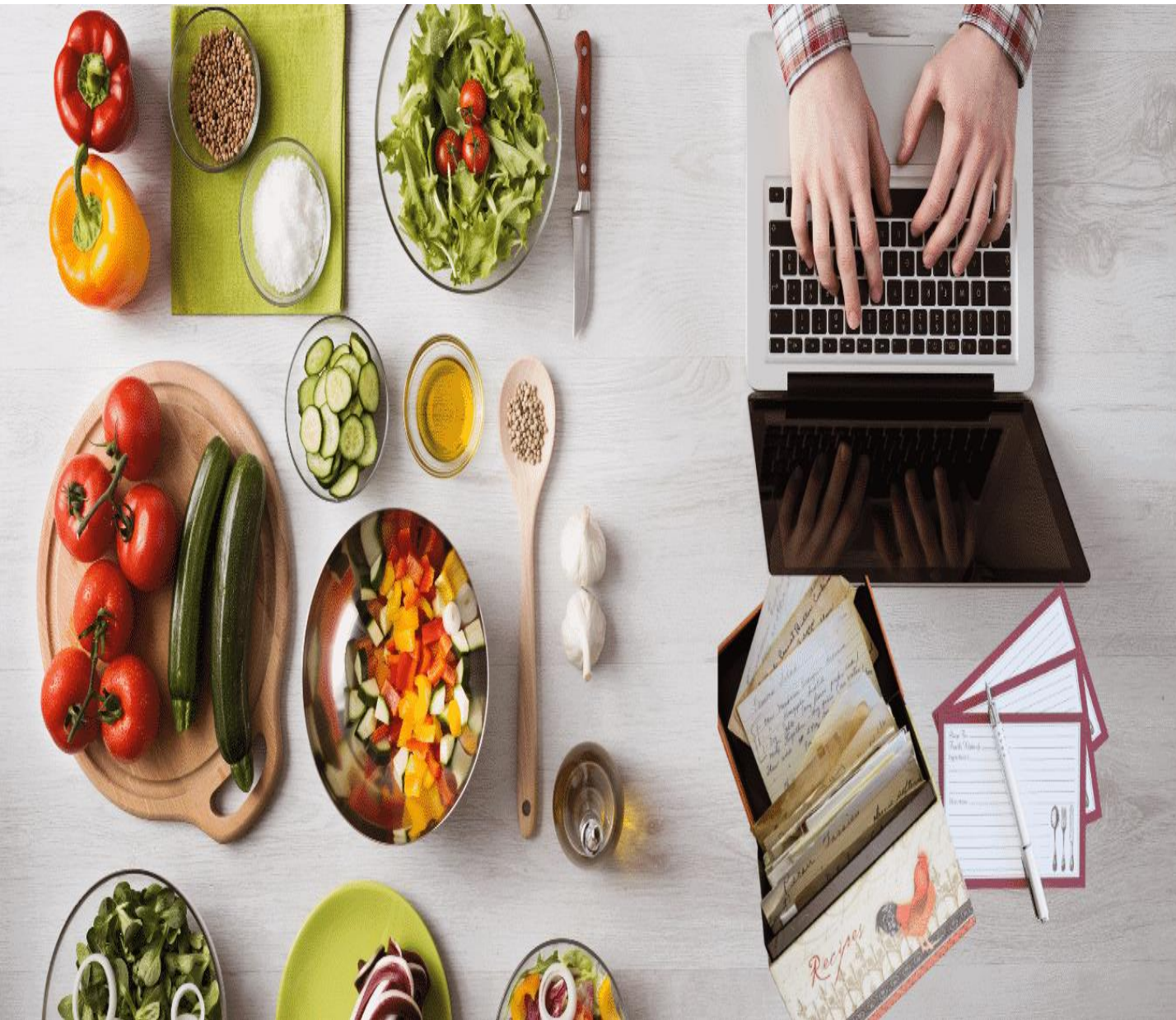
# Food Recipes: Topic Modeling & Recommendations

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# Background



## Motivation

- Millions of recipes are available online
- We spend a lot of time thinking about what to cook and end up making the same recipes again

## Objective

- Identify key ingredients across cuisines and recipe types
- Personalized recommendations for new recipes to try

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# Data Source



Scraped Food.com data available on Kaggle

## Recipes dataset

231,637 Recipes

4000 Ingredients

555 Cuisines/Tags

## Users Ratings dataset

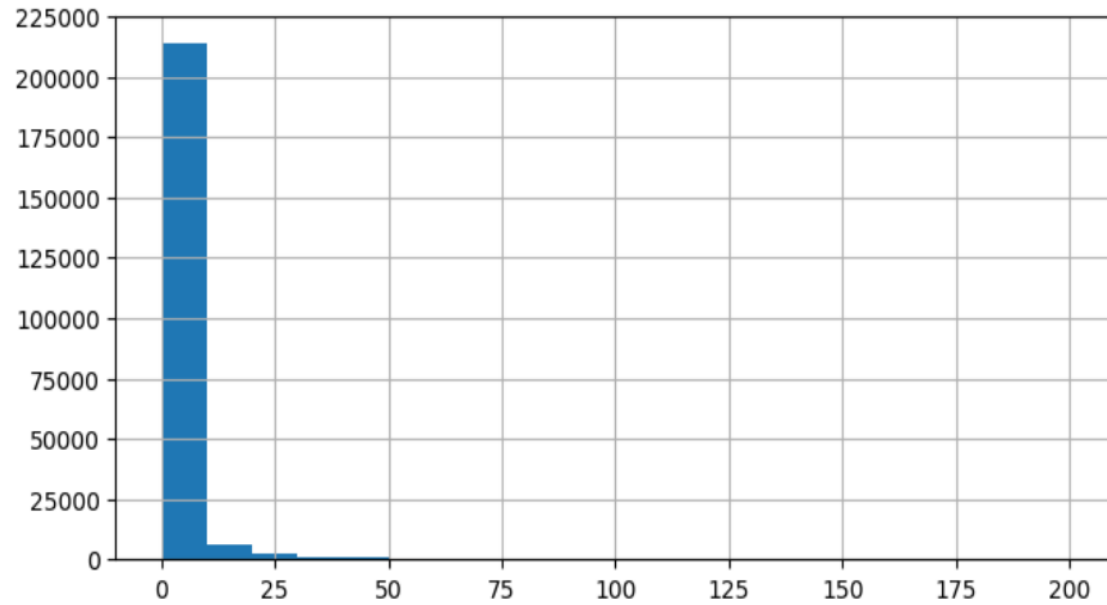
226,570 Users

1.1M Ratings

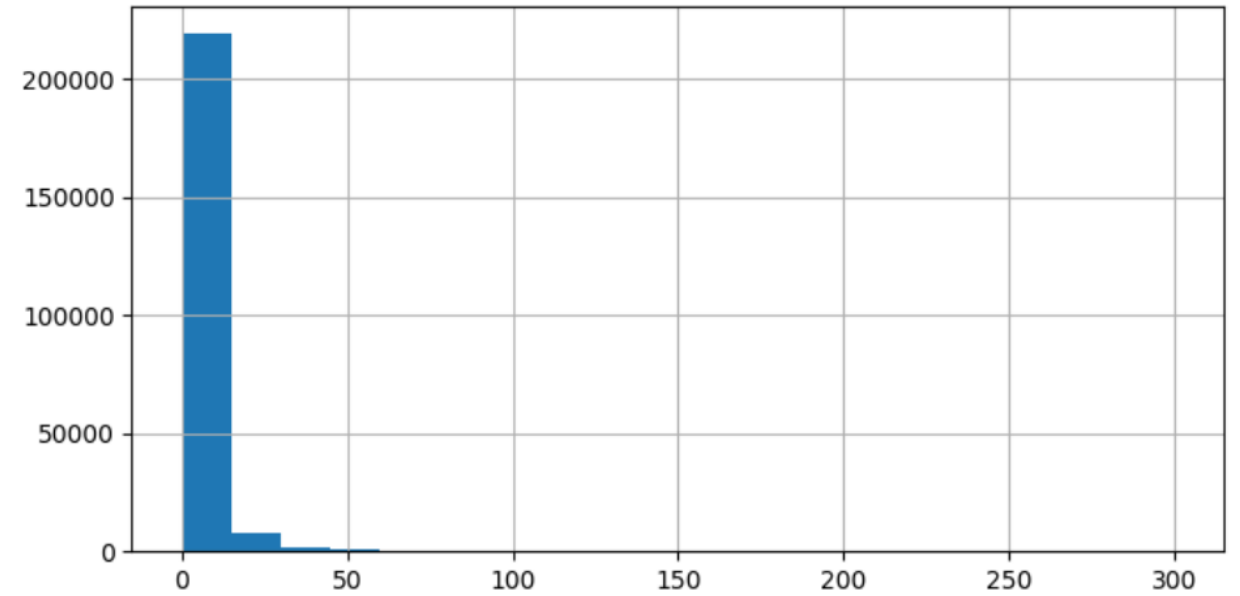
231,637 Recipes

# EDA

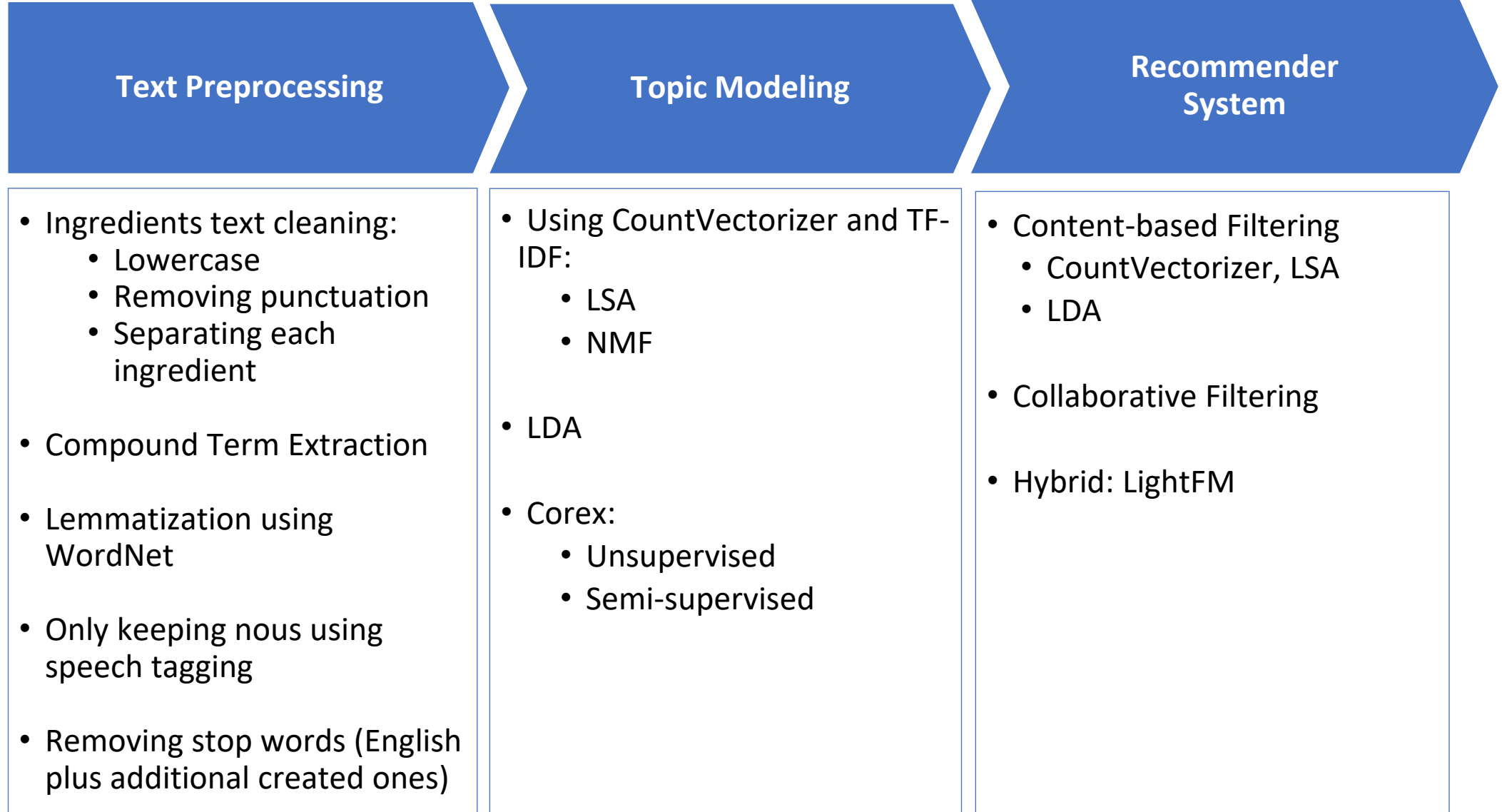
**Ratings per User Distribution**



**Ratings per Recipe Distribution**



# Methodology







# Topic Modeling: Semi-supervised

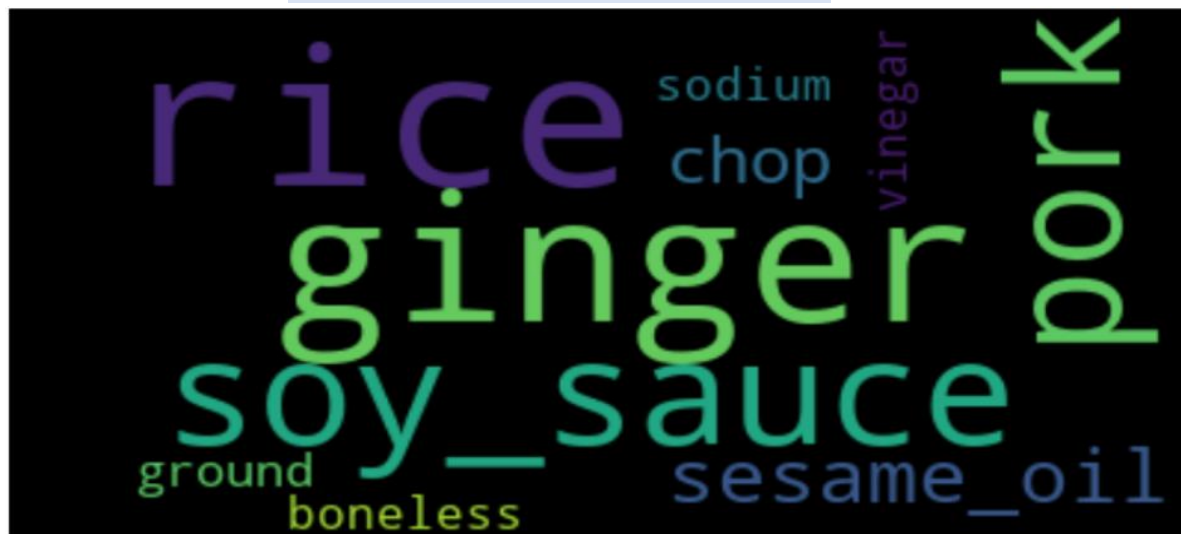
Italian



American



Chinese



Mexican



# Recommendation Results

**CountVectorizer,  
LSA**

**All in the kitchen chili**



- **Texas style skillet**
- **Texas beef skillet**
- **La bamba casserole**

**Alouette potatoes**



- **Collard greens with gruyere**
- **Cherry tomatoes on provolone garlic bread**
- **Olive garden bruschetta**

**LDA**

**All in the kitchen chili**



- **Jalapeno red bean bbq burger**
- **Left over pork and black bean taco soup**
- **Torshi lift**

**Alouette potatoes**



- **Rigatoni with bacon, spinach and cheese**
- **Penne with sausage and yum sauce**
- **Capellini primavera**

**Sugar shortbread  
cookies**



- **Danish French bread**
- **Vegan caramels**
- **Blueberry muffin mix**



# Future Work

- Further text preprocessing and parameters tuning
- Classify recipes into types to improve recommendations
- Test on new data set
- Create web app to recommend new recipes