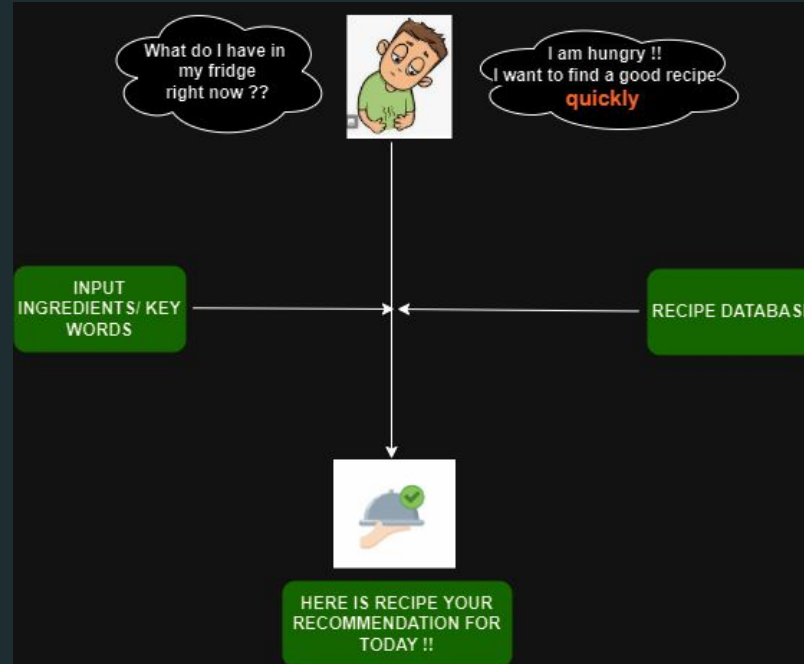


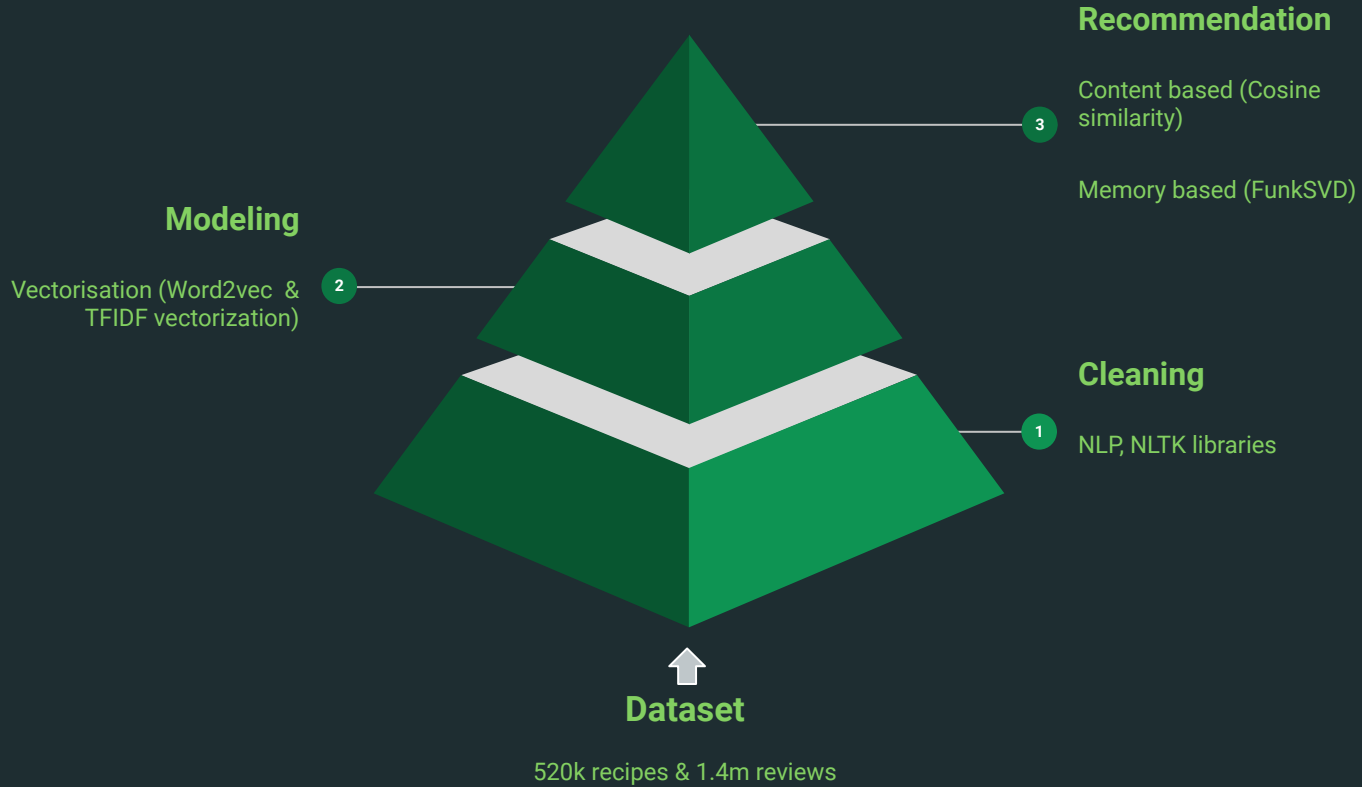
# Flavor Fuze

Anupa Jayakody

# PROJECT OVERVIEW & IMPACT

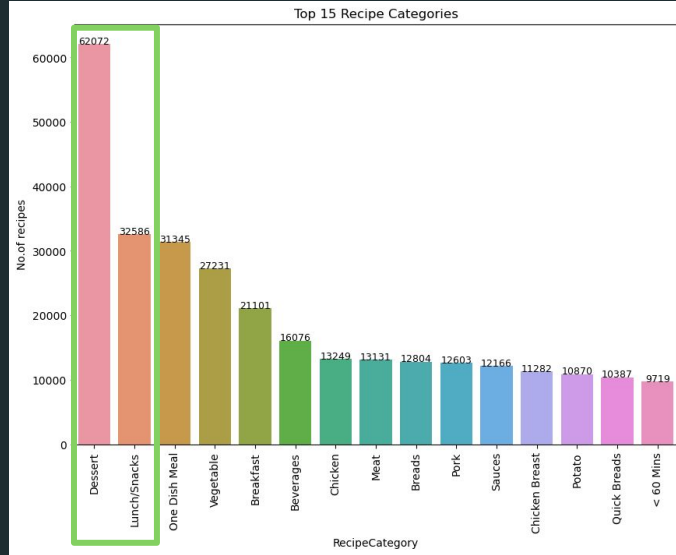


# APPROACH



# EDA & FINDINGS

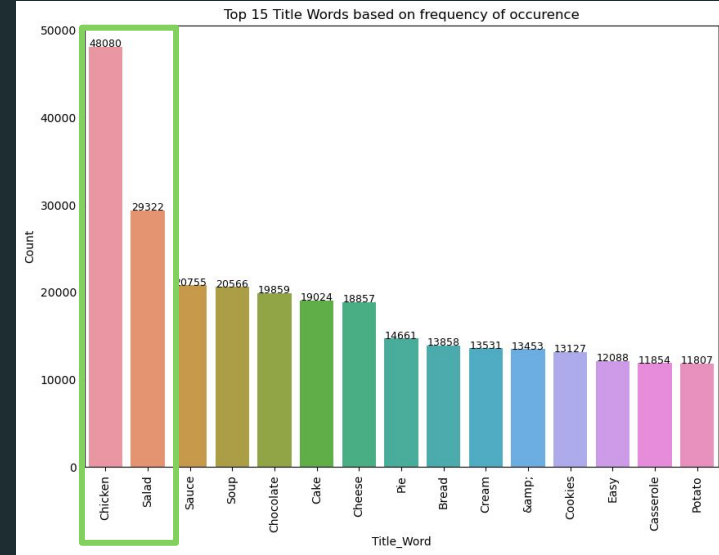
## Category



10 % of the recipes are categorized as Desserts, 6% as Lunch/Snacks

Vs.

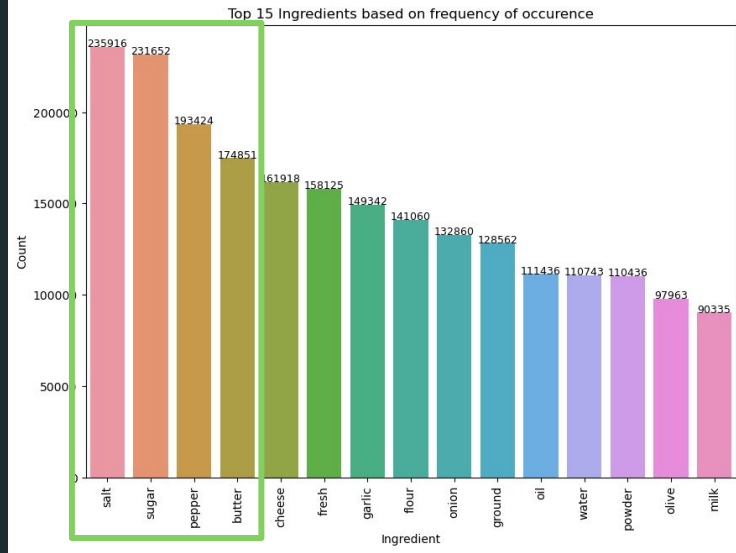
## Title Words



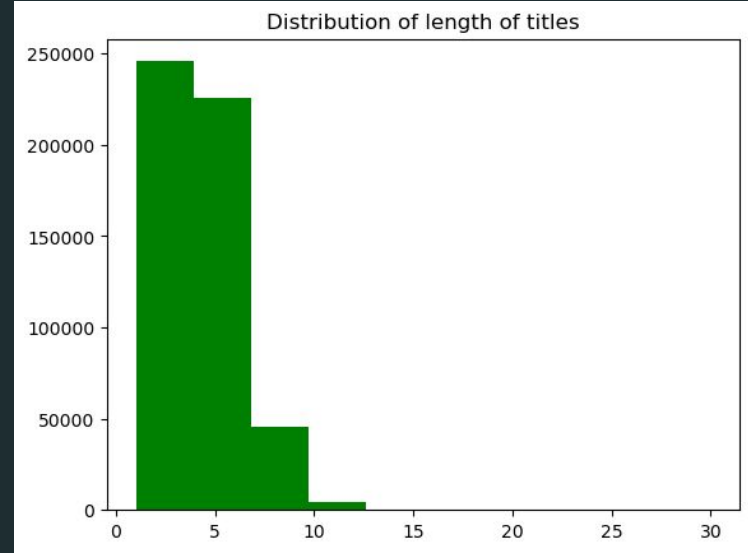
Most common title words are Chicken, Salad and Sauces

# EDA & FINDINGS

## Ingredients



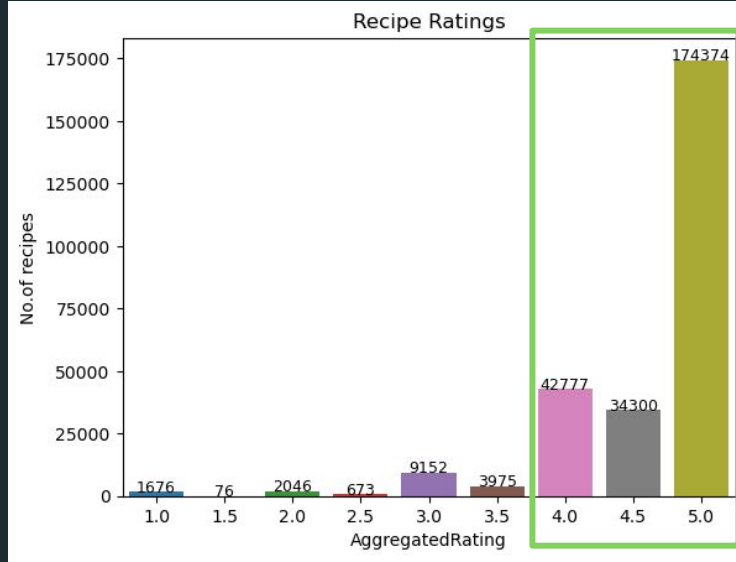
Most common ingredients are salt, sugar, pepper, butter and cheese is in top 5



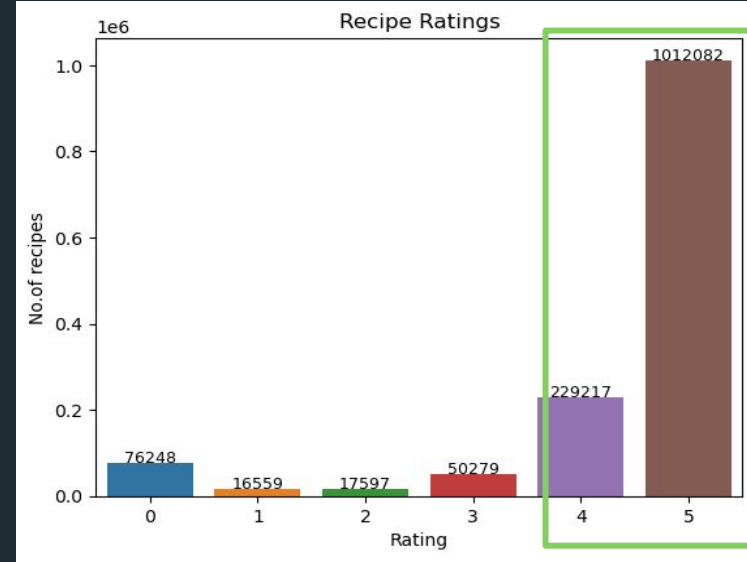
Average length of ingredients <20

# EDA & FINDINGS

Review Score - Recipe Dataset



Review Score - Reviews Dataset



Both datasets comprise of more  $\geq 4$  average rated recipes  
Zero rated

# MODEL COMPARISON

## Solution 1 - Search by Ingredients / Keywords/ Both

|   | title                            | ingredients                                       | score              | category     | keywords  | calories | time   |
|---|----------------------------------|---|--------------------|--------------|---|----------|--------|
| 0 | Ramen Delight                    | frozen spinach, egg                               | 0.9225125312805176 | Lunch/Snacks | Chinese, Japanese, Korean, Asian, < 15 Mins, B... | 453.6    | PT7M   |
| 1 | Stir Fry Veggies Yumm Yumm       | extra virgin olive oil, garlic, broccoli flore... | 0.9064502120018005 | Vegetable    | Chinese, Japanese, Asian, < 30 Mins, Easy         | 176.4    | PT20M  |
| 2 | Teriyaki Marinade                | soy sauce, rice vinegar, garlic clove, brown s... | 0.9044147729873657 | Chinese      | Japanese, Asian, Low Cholesterol, < 15 Mins, Easy | 405.9    | PT5M   |
| 3 | Beef, Cod Fish and Soy Milk Stew | potato, zucchini, garlic clove, bean sprouts, ... | 0.8992874622344971 | Meat         | Japanese, Korean, Asian, < 30 Mins                | 229.1    | PT28M  |
| 4 | Asian Style Cold-Udon Noodles    | udon noodles, lettuce, cabbage, cucumber, red ... | 0.8986862897872925 | Japanese     | Korean, Asian, < 4 Hours                          | 2982.4   | PT1H5M |

### TFIDF results

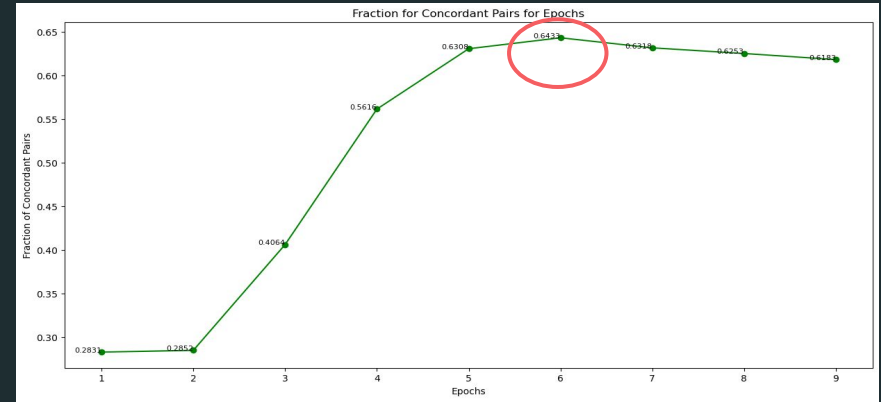
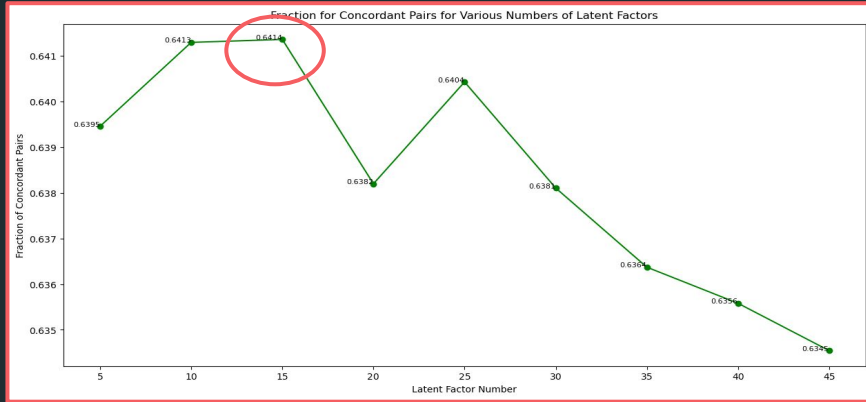
*(Recipes with the title Japanese Soup was missing in the recommendations)*

|   | title  | ingredients                                       | description                                       | keywords                          | category   | score    |
|---|--|---|---|-----------------------------------|------------|----------|
| 0 | (Minty Noodle Soup,)                           | onion, celery ribs, carrot, turnips, bay leaf,... | Make and share this Minty Noodle Soup recipe f... | Inexpensive                       | < 30 Mins  | 0.803593 |
| 1 | (Japanese Take-Out Miso Soup,)                 | bonito flakes, white miso, firm tofu, green onion | If you eat at a Japanese restaurant, you will ... | Soy/Tofu, Beans, Asian, < 30 Mins | Clear Soup | 0.795321 |
| 2 | (Delicious Chinese Dumpling Soup,)             | water, condensed chicken broth, soy sauce, bok... | This soup is delicious on a cold winter night.... | Easy                              | < 4 Hours  | 0.786894 |
| 3 | (Kneophla Soup,)                               | butter, onion, fresh mushrooms, carrots, celer... | Make and share this Kneophla Soup recipe from ... | Inexpensive                       | < 4 Hours  | 0.785226 |
| 4 | (Browned-Flour Soup from Basle (Switzerland),) | butter, flour, hot water, onion, cloves, bay l... | From &quot;The Swiss Cookbook&quot;. I haven'...  | Inexpensive                       | < 4 Hours  | 0.784849 |

### Word2Vec results

# MODEL COMPARISON

## Solution 2 - Rating Prediction



FunkSVD Test data FCP

FCP 0.64 @ 15 latent factors , 6 epochs



# PRODUCT DEMO



# FUTURE

## MODEL

- ❑ Recommendations to repeating users
- ❑ Solution when one of the key-ed tokens are not available in the recommendation
- ❑ Reduce results loading time

## PRODUCT

- ❑ Connect to a live data source
- ❑ Give the source recipe URL
- ❑ Develop a commercial app