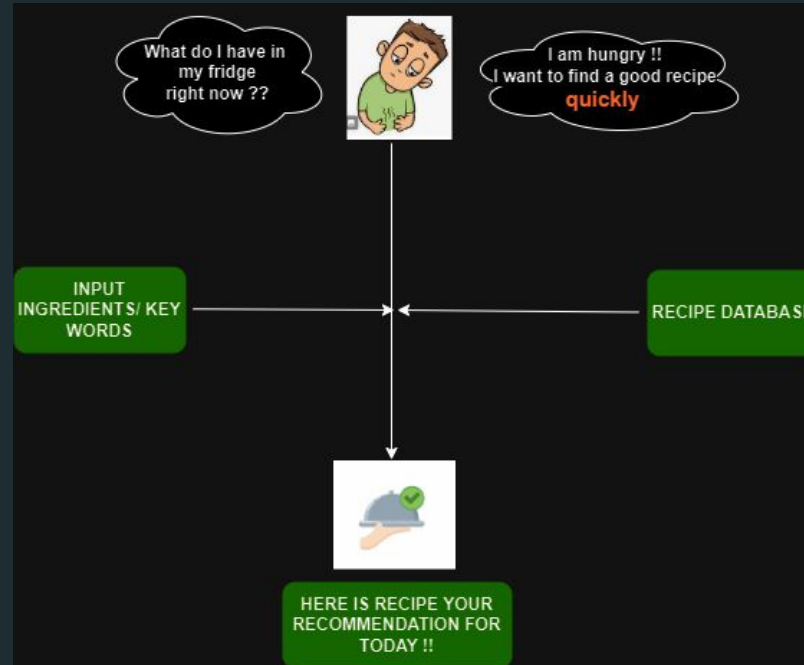


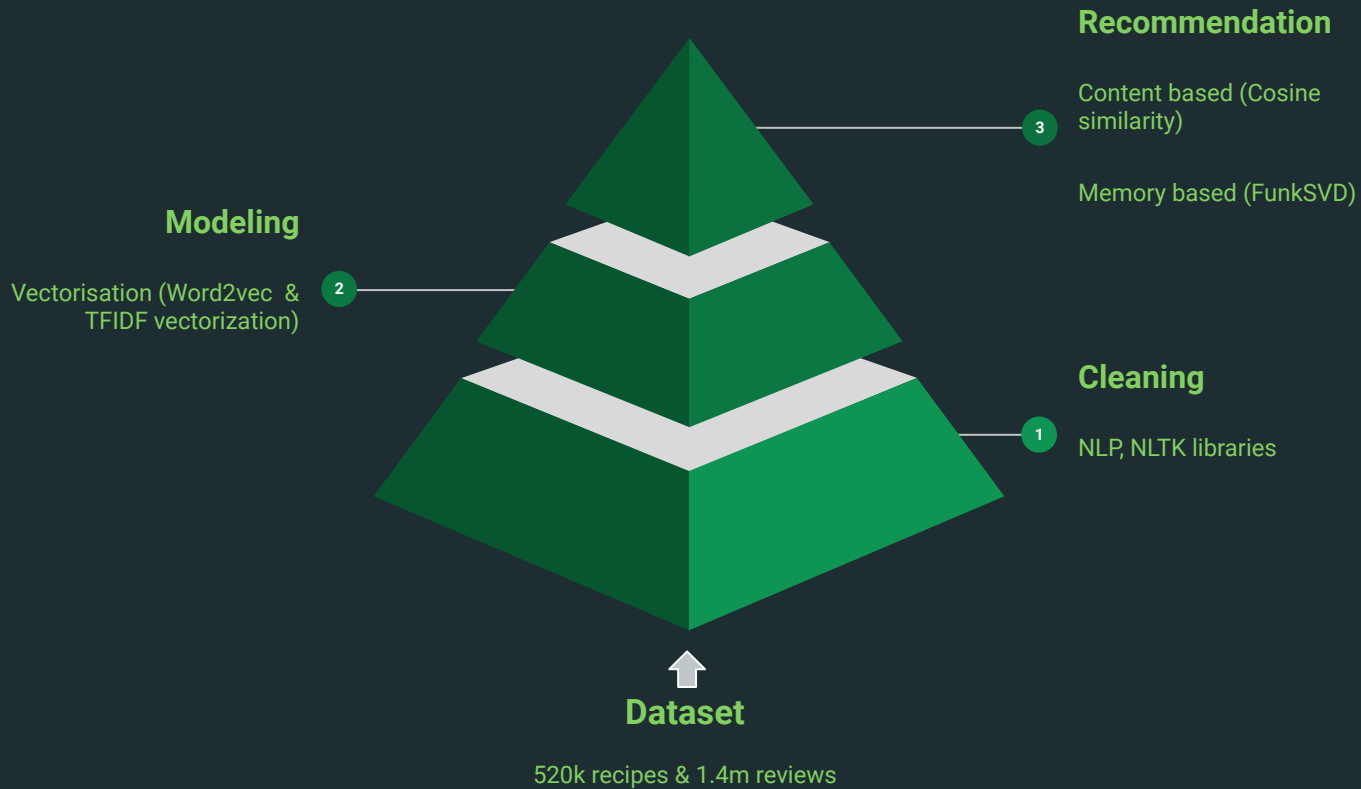
Flavor Fuze

Anupa Jayakody

PROJECT OVERVIEW & IMPACT

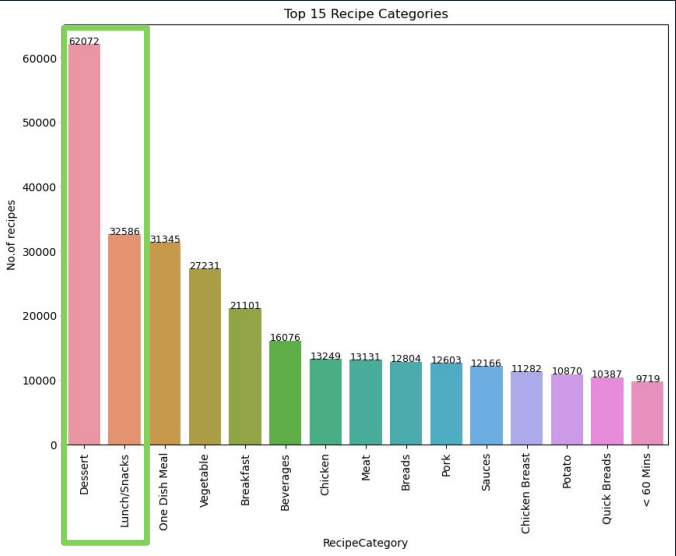


APPROACH



EDA & FINDINGS

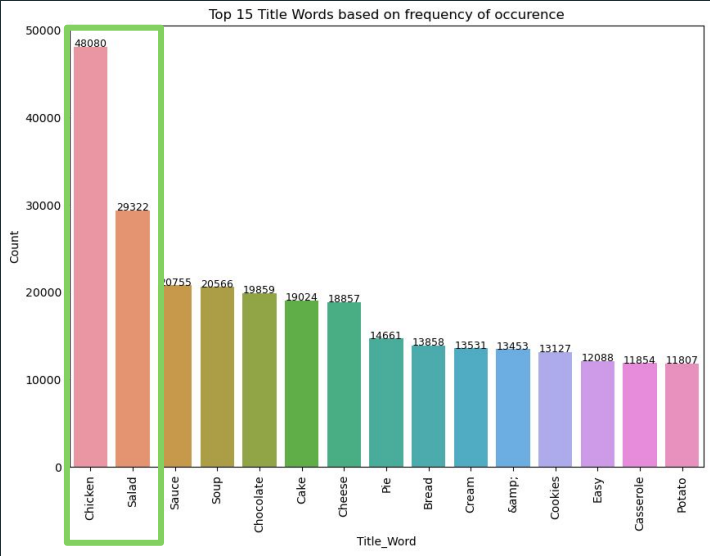
Category



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

Vs.

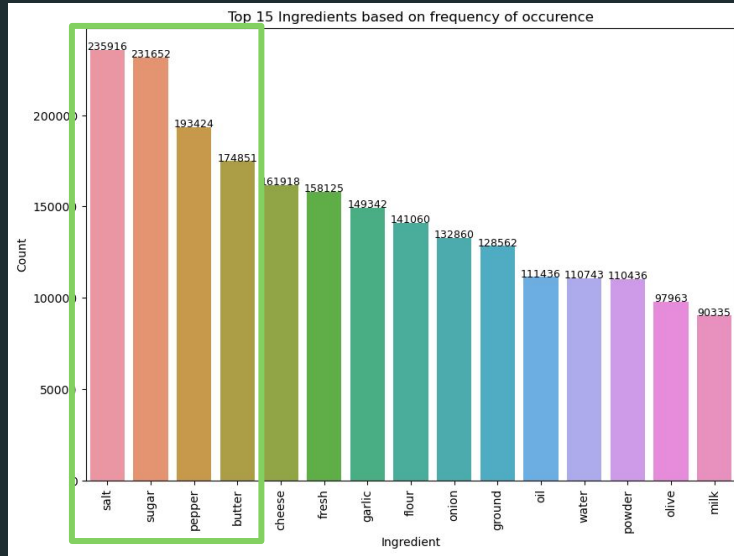
Title Words



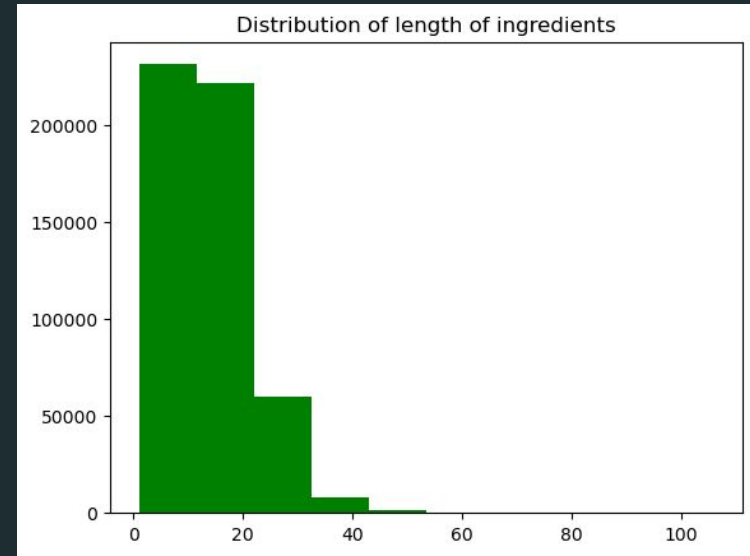
Most common title words are Chicken, Salad and Sauces

EDA & FINDINGS

Ingredients



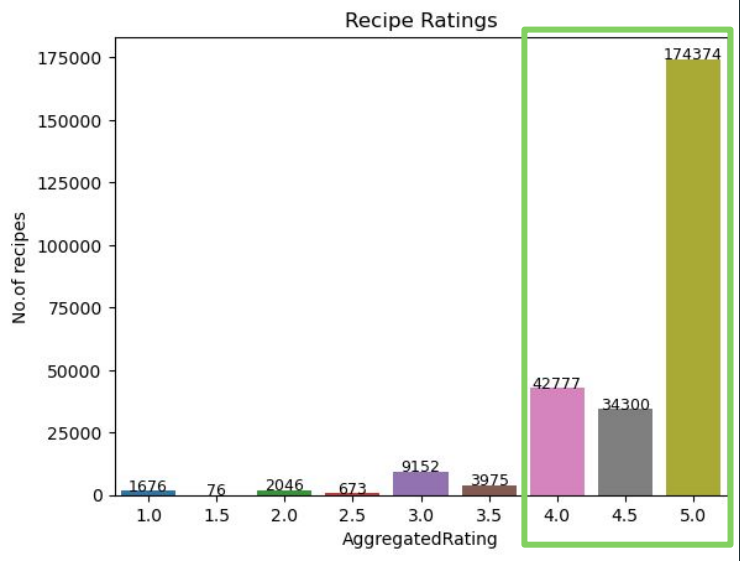
Most common ingredients are salt, sugar, pepper, butter and cheese is in top 5



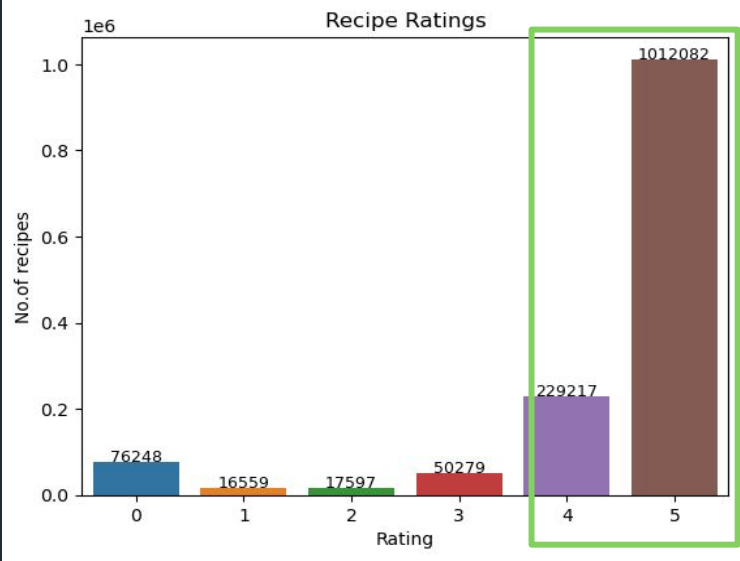
Average length of ingredients <20

EDA & FINDINGS

Review Score - Recipe Dataset



Review Score - Reviews Dataset



Both datasets comprise of more ≥ 4 average rated recipes
Zero rated

MODEL COMPARISON & EVALUATION

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

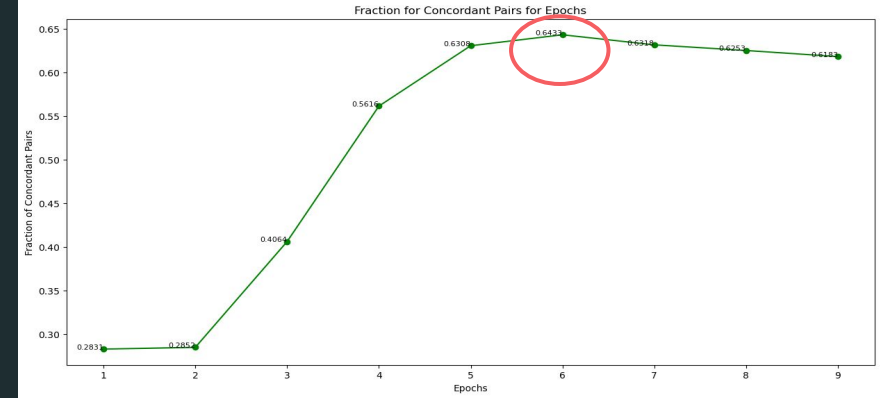
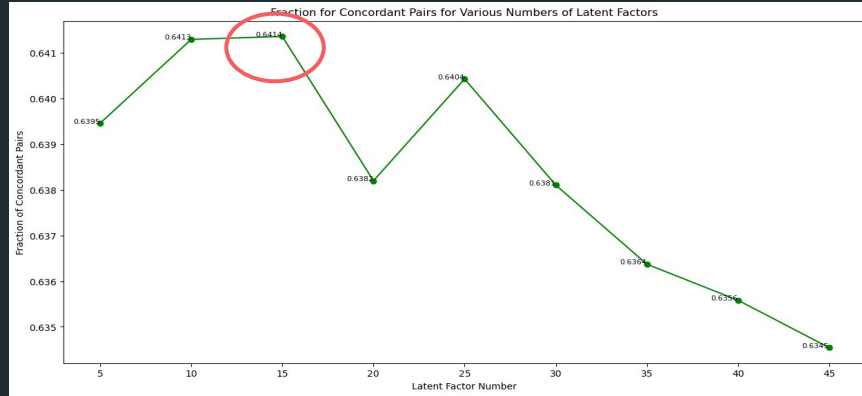
(Recipes with the title Japanese Soup was missing in the recommendations)

	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 "The Swiss Cookbook". I haven'...	Inexpensive	< 4 Hours	0.784849

Word2Vec results

MODEL COMPARISON & EVALUATION

Solution 2 - Rating Prediction



FCP for different latent factor numbers & epochs

MODEL COMPARISON & EVALUATION

Solution 2 - Rating Prediction

	AuthorId	RecipId	ActualRating	PredictedRating	Details	RatingDiff
0	1335993	282123	5.0	4.407597	{'was_impossible': True, 'reason': 'User and i...	0.592403
1	1072593	41544	5.0	1.000000	{'was_impossible': False}	4.000000
2	127062	23300	0.0	1.000000	{'was_impossible': False}	1.000000
3	1513099	329672	5.0	4.407597	{'was_impossible': True, 'reason': 'User and i...	0.592403
4	11009	67781	5.0	5.000000	{'was_impossible': False}	0.000000
5	361931	222346	5.0	1.000000	{'was_impossible': False}	4.000000
6	2000799506	143640	1.0	1.000000	{'was_impossible': False}	0.000000
7	1801707544	114514	5.0	4.407597	{'was_impossible': True, 'reason': 'User and i...	0.592403
8	59064	146604	4.0	1.000000	{'was_impossible': False}	3.000000
9	125640	72545	4.0	4.530968	{'was_impossible': False}	0.530968

FunkSVD Test data FCP

FCP 0.64 @ 15 latent factors , 6 epochs

PRODUCT DEMO

Flavor Fuze

Elevate your Culinary experience
with Flavor Fuze - where every
dish becomes and adventure

By Anupa Jayakody



Search by Ingredients

Do you have some ingredients and you want to search the recipes that you can make them??

Press Enter to apply

Lets ing-in !!

Search by Keywords

Do you want to search by a keyword today??

Lets key-in !!

FUTURE

MODEL

- ❑ Recommendations to repeating users
- ❑ Highlight the missings tokens in the recommendation
- ❑ Reduce results loading time

PRODUCT

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