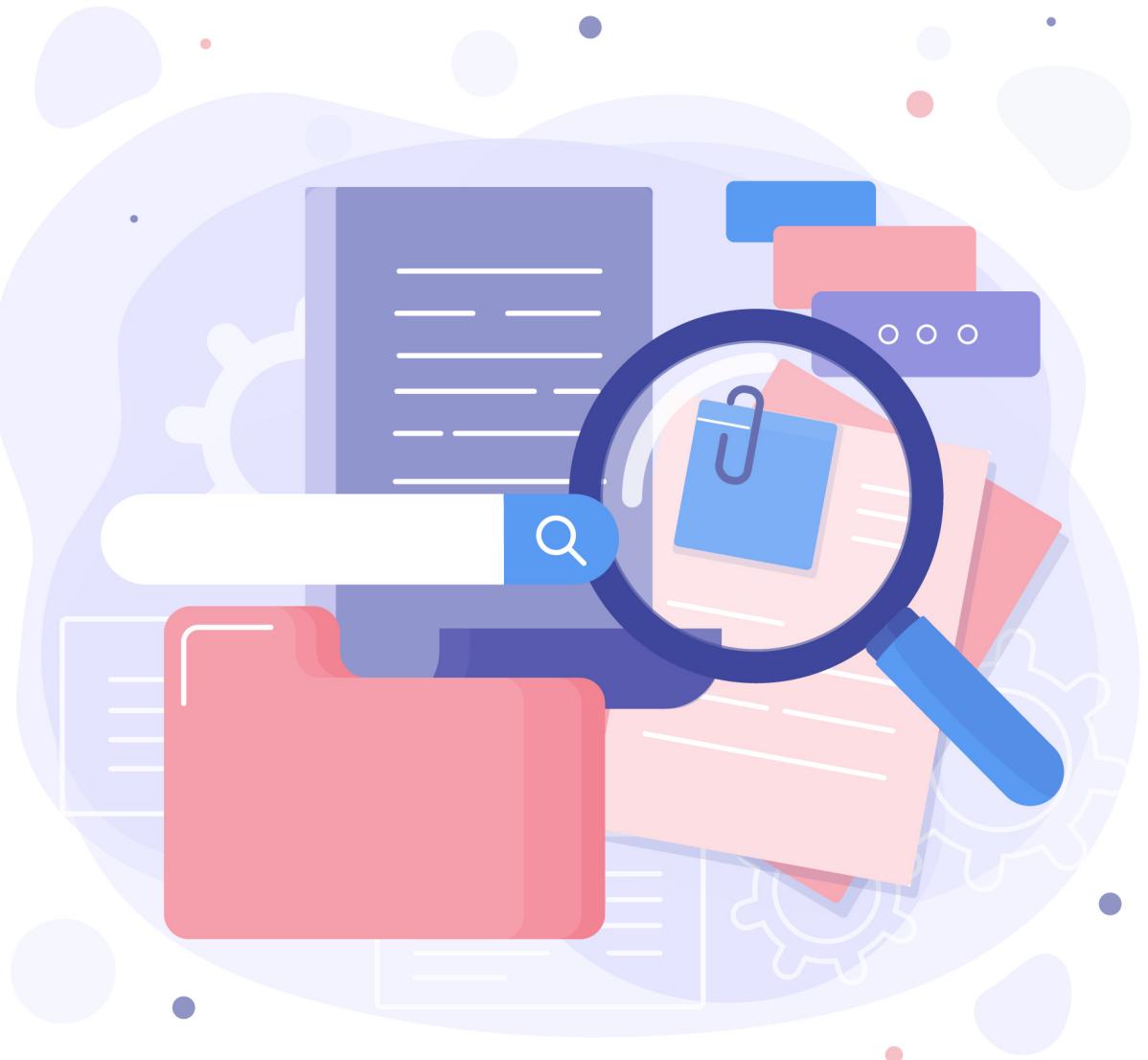




How often do you
ask yourself
“what should I cook?”

How many **hours** do
you spend **searching**
for recipes?



What recipe app
do you **use**?





SousChef.

Personalized Recipes at Your Fingertips.

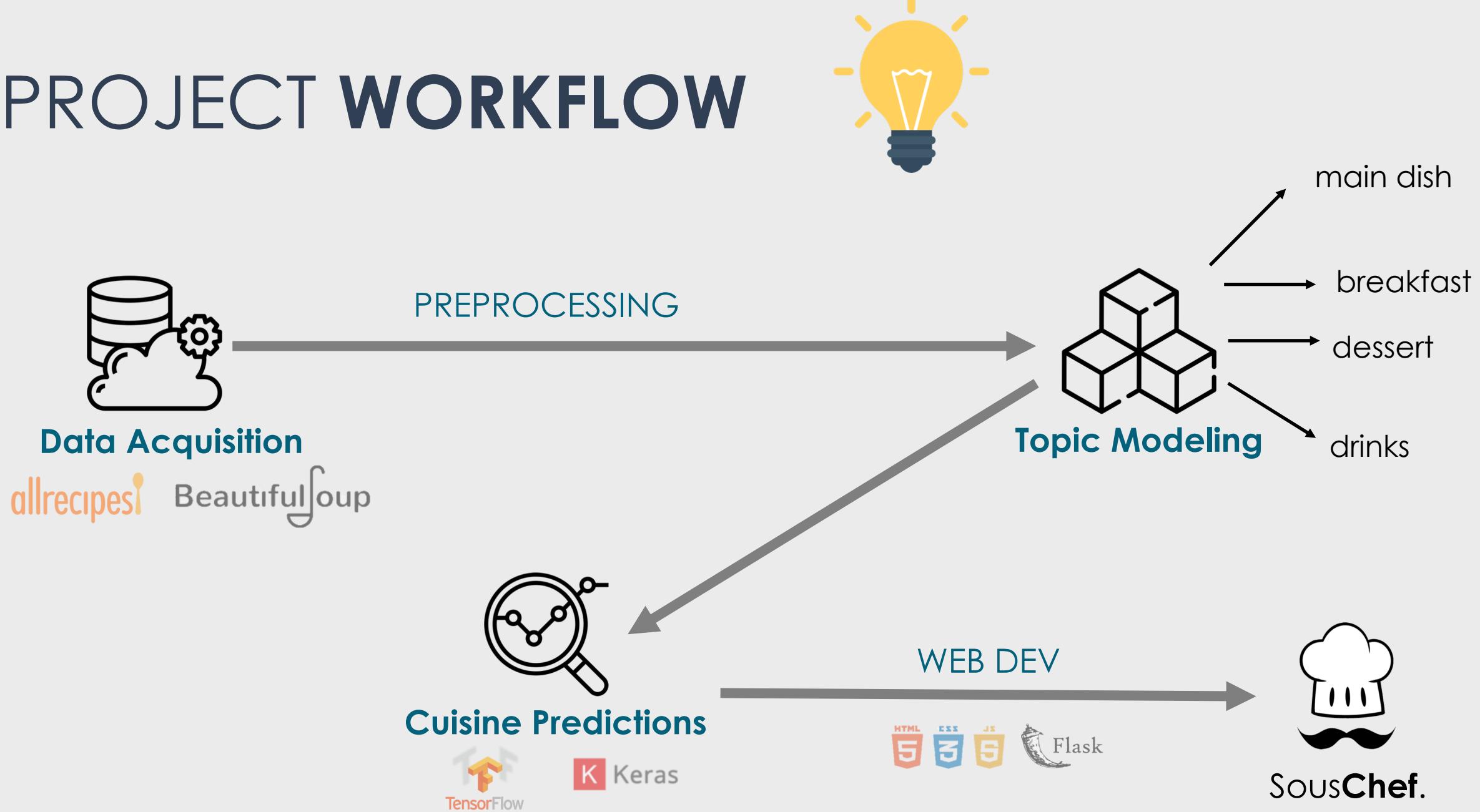
PROBLEM STATEMENT



Develop a personalized recipe recommender based on user-inputted ingredients by:

- Web scraping 5000+ recipes from All Recipes
- Preforming topic modelling analysis (ie. breakfast/lunch/dinner etc.)
- Predict the cuisine based on user ingredients
- Recommending recipe

PROJECT WORKFLOW

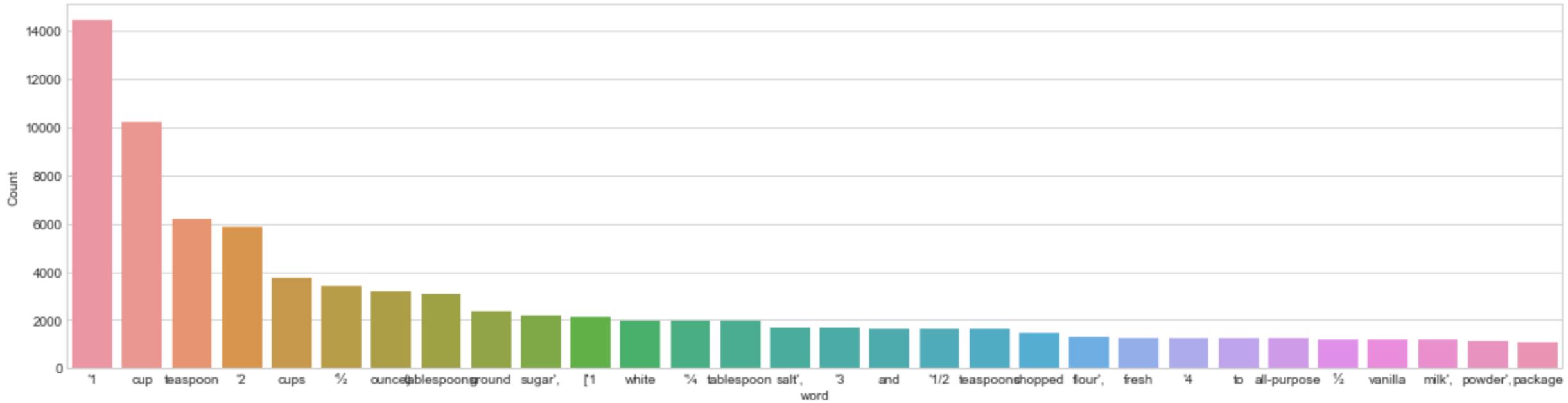




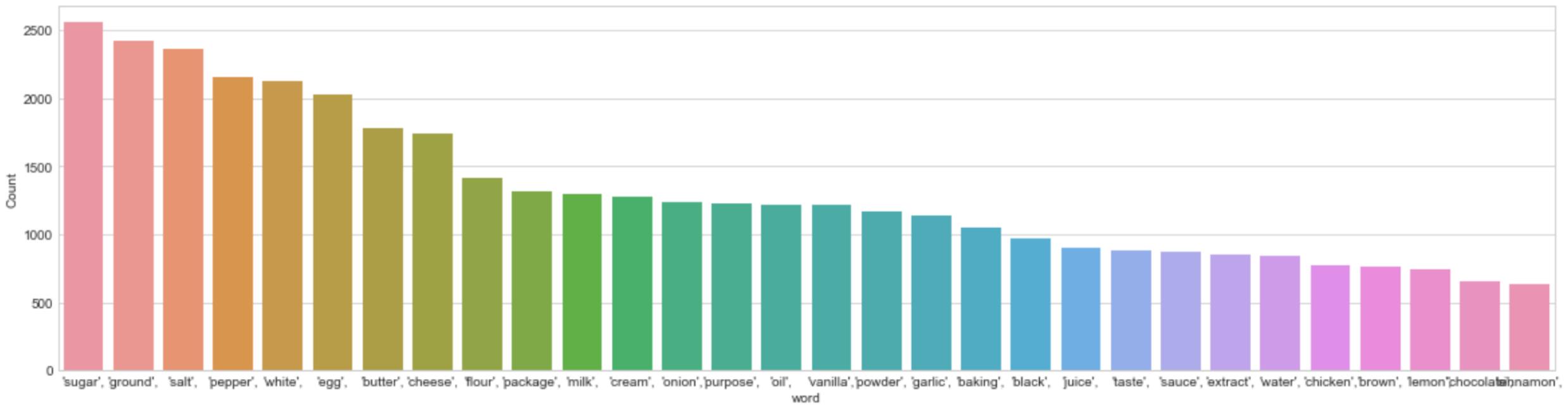
PROJECT STEPS



PREPROCESSING: BEFORE



PREPROCESSING: AFTER



2

TOPIC MODELING

Topic 1
baking, flour, purpose, powder, soda, egg, salt, sugar

Topic 2
pepper, taste, black, olive, garlic, salt, oil, tomato

Topic 3
cream, cheese, package, softened, dip, sour, green, cheddar

Topic 4
orange, juice, lime, pineapple, ice, concentrate, flavored, bottle

Topic 5
chocolate, chip, semisweet, cocoa, cooky, unsweetened, hot, square

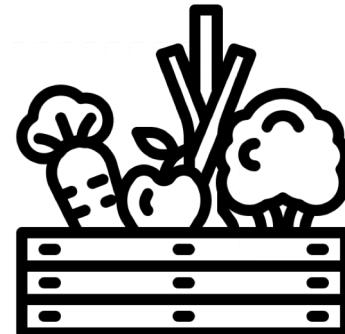
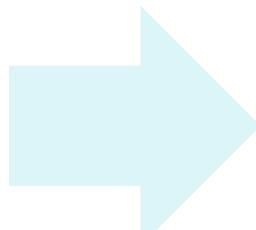
Topic 6
banana, smoothie, ripe, milk, yogurt, honey, chunk, vanilla

Topic 7
apple, cinnamon, cored, ground, cider, sugar, crisp, brown

Topic 8
chicken, breast, boneless, skinless, cut, wing, broth, piece

Topic 9
peanut, butter, cooky, sugar, creamy, confectioner, softened, melted

Topic 10
vanilla, extract, sugar, white, milk, cocoa, egg, confectioner



1. Main dish
2. Breakfast
3. Dessert
4. Drinks

3

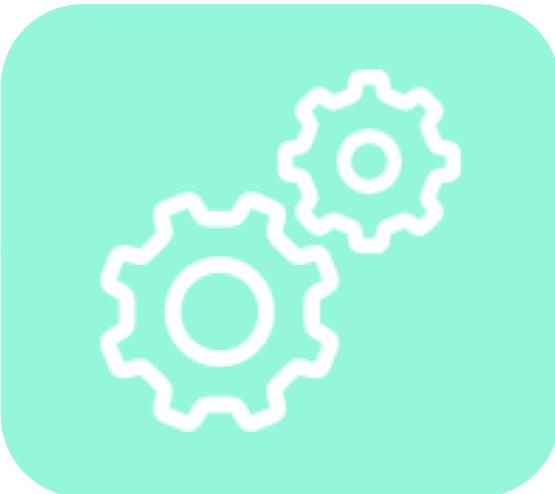
CUISINE PREDICTIONS: NN



30K+ RECIPE DATASET



kaggle™



TRAIN/TESSED
MODEL

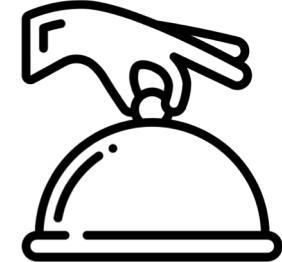
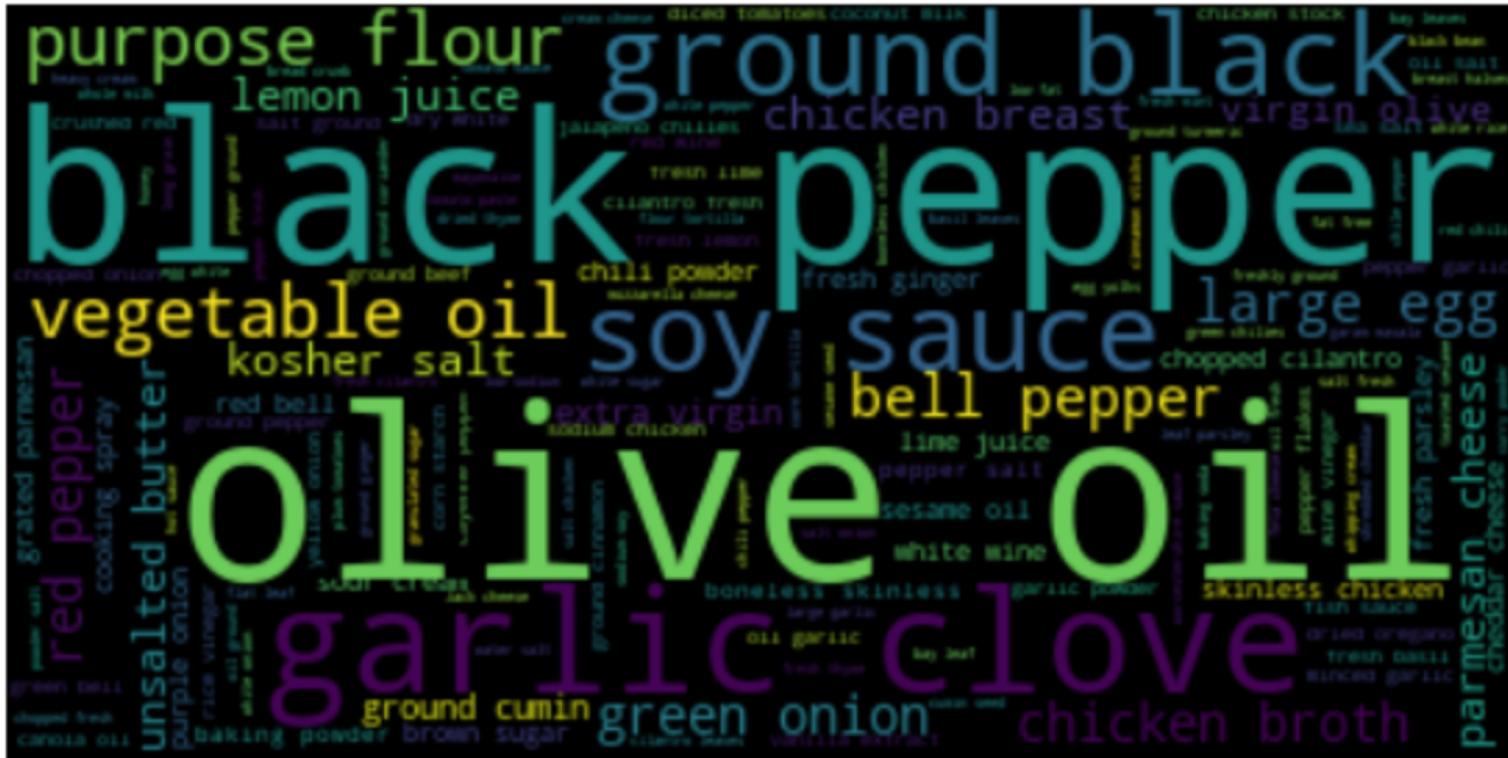
ACC: 80%



PREDICT CUISINES
ON OUR DATASET

CUISINE PREDICTIONS: NN

Ingredients



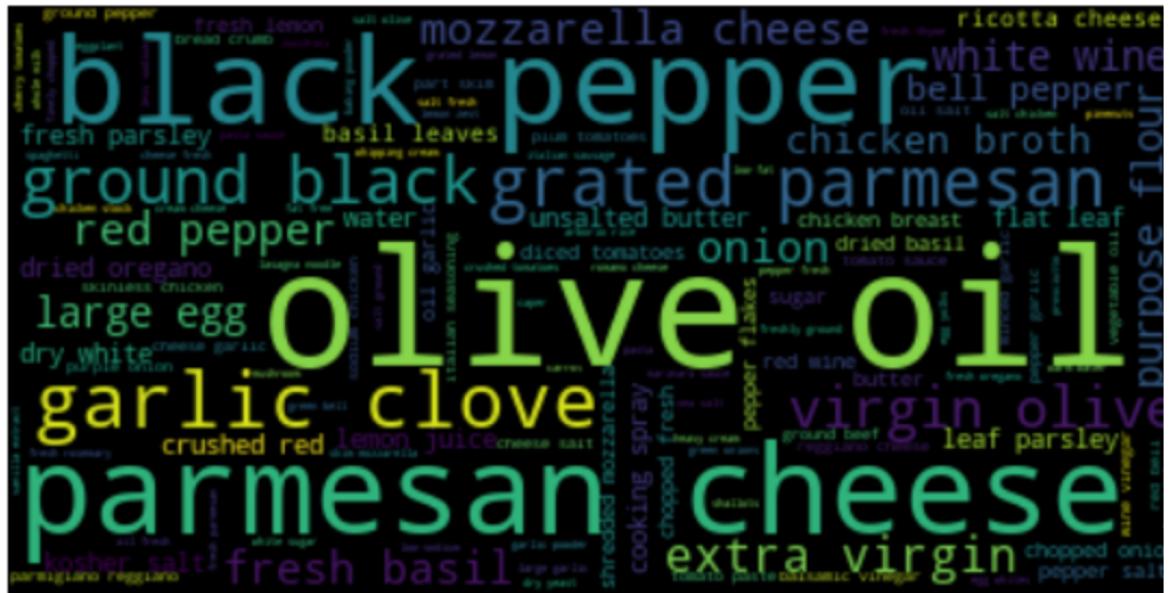
1. Greek
 2. Italian
 3. Spanish
 4. Mexican
 5. Chinese
 6. Etc.

Most common ingredients across all cuisines

CUISINE PREDICTIONS: NN



italian



greek



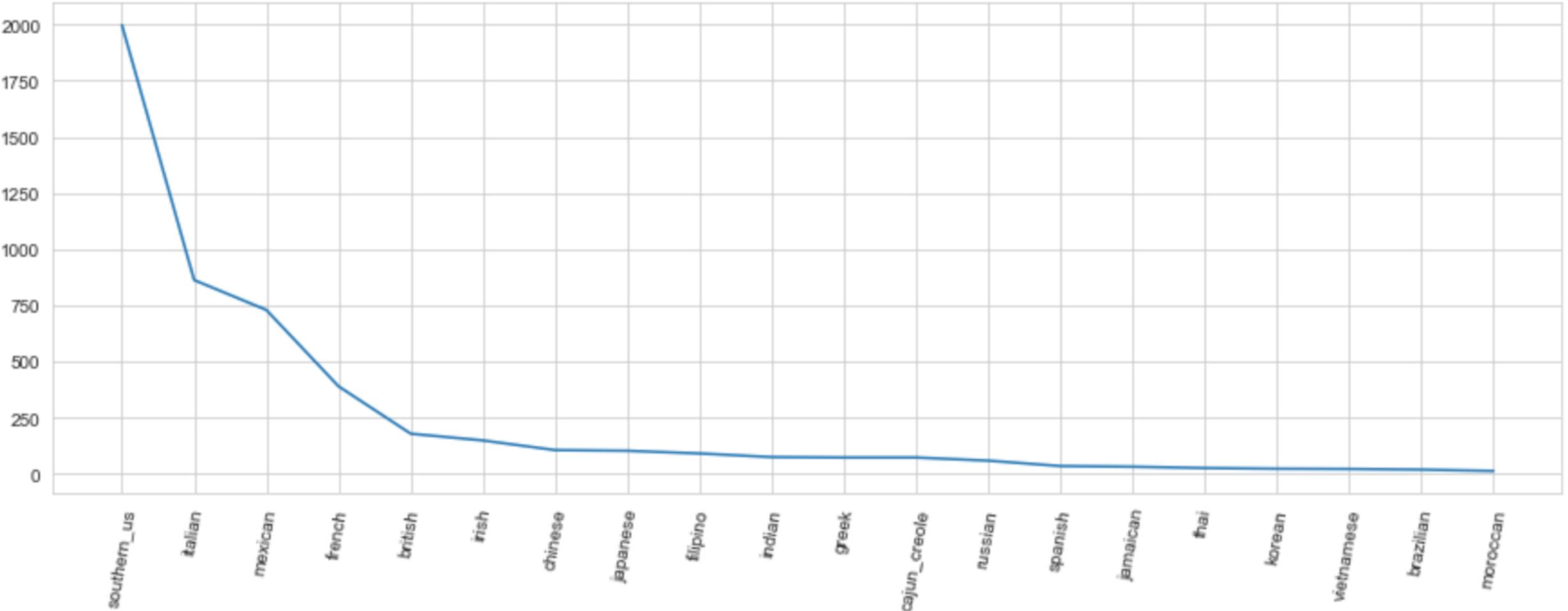
CUISINE PREDICTIONS: NN

TITLE	INGREDIENTS	CUISINE
Mexican Caviar	tomatoes, onions, olive oil, garlic.. Etc.	Mexican
Fried Mozza Puffs	oregano, flour mozzarella .. Etc.	Italian
Lamb Tagine	olive oil, lamb, plums .. Etc.	Moroccan
Spicy Pumpkin Spiced Latte	Almond milk, pumpkin puree etc.	Italian

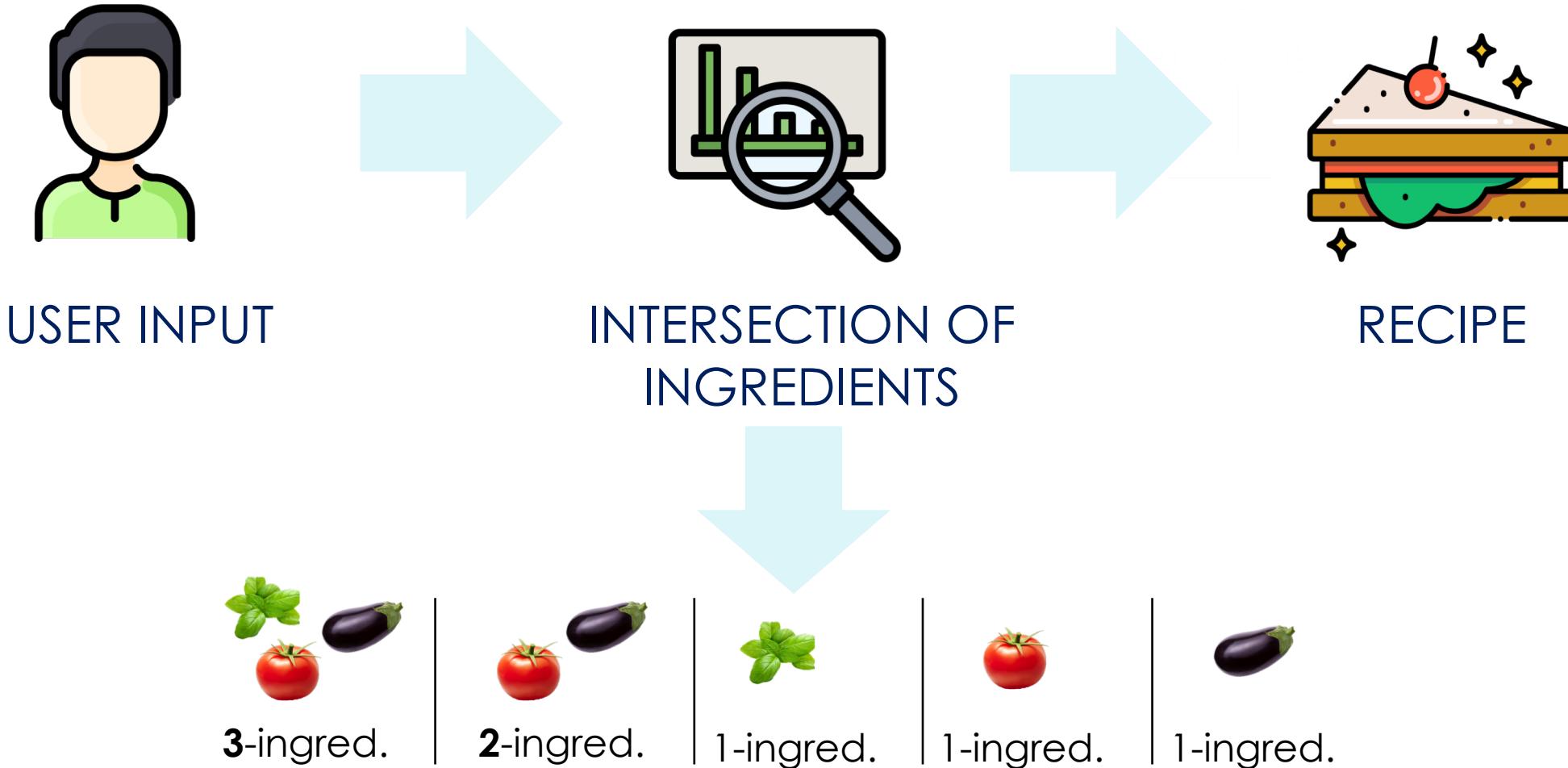
CUISINE PREDICTIONS: NN

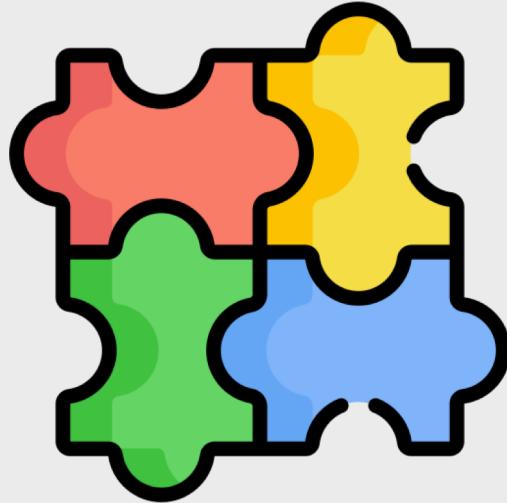


Recipe Count per Cuisine in Data



RECIPE RECOMMENDER





DEMO

NEXT STEPS



- Web scraping recipe links along with recipe information
- Expand on the user ingredient inputs; ingredient intersections
- Recommend what additional ingredients user needs.
- Expand database to include recipes from Yummly, Epicurious etc.

FUTURE APPLICATIONS



Integrate with grocery apps – retrieve shopping cart ingredients and recommend recipes based on user items.



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<https://souschef-ai.herokuapp.com/>