



Get Cooking

Team Details

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Overview

A **data-driven** recipe recommendation system **that uses web-scraped** recipe data (including but not limited to data **such as** ingredients, health facts, etc.) and **user preferences**.



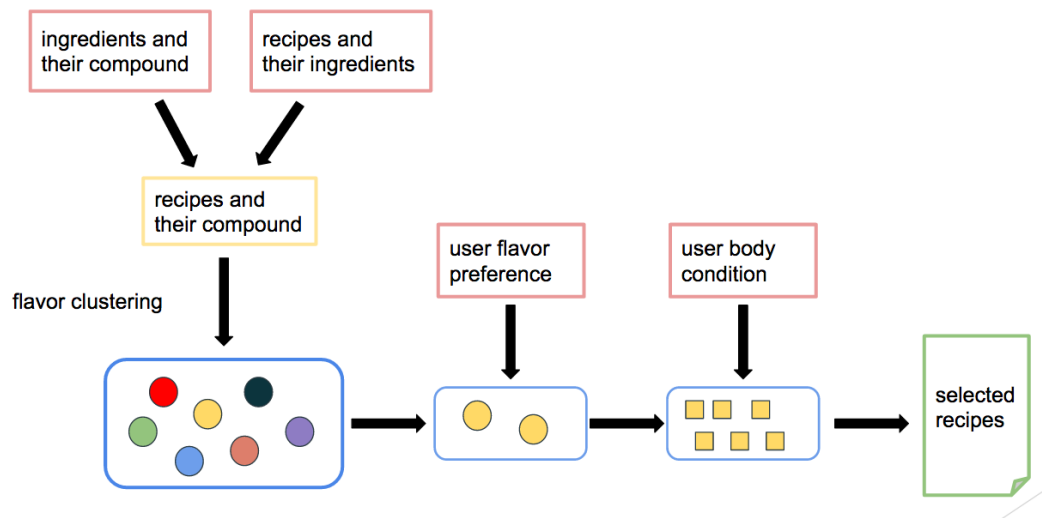
The dataset can be found here:

<https://www.kaggle.com/datasets/shuyangli94/food-com-recipes-and-user-interactions>

Goals

1. Create a search algorithm that utilizes similarity scoring to rank recipes according to the greatest similarity to the search query.
2. To provide recipes when the user has limited items in the kitchen, or cannot decide what to cook for his/meal.
3. Recommend recipes based on the dish name
4. Recommend recipes based on the ingredients the user has with him/her.

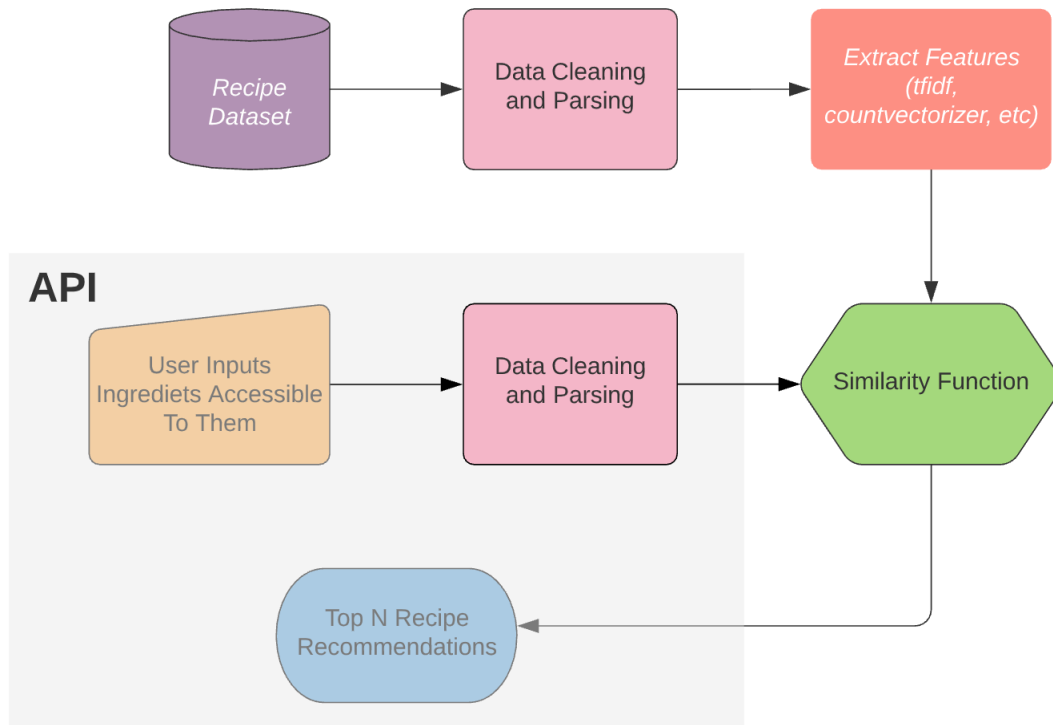
Architecture



Process Outline

1. Data Preprocessing
2. Exploratory Data Analysis
3. Study of approaches (Clustering and Associative rule mining) for recommendation
4. Design of a pipeline and system to implement this approach and discussion on the system's capabilities
5. Deploy the Model on AWS or Google Cloud Computing Platform
6. Build a web application to demonstrate the prediction and recommendation results.

Flowchart



Specifications

- Understand the dataset (explore)
- Create an api endpoints/application (client) to call the api and pass in the required parameters
- Pass the input parameters to the model which would use the recipe dataset and recommend you the recipes based on the input
- Model would pass in the recipes fetch and suggest to user
- Probably add in link to youtube or food.com article as well
- Tokenize the application

APIs:

- To fetch recipes based on ingredients
- To fetch recipes on recipe names

User inputs:

- Cuisine
- Food name

Output:

- Recipes
- Articles/ videos related
- Restaurants nearby offering it

Timelines

Week 1	Researching datasets Pre-processing Testing pretrained models Building apis Dockerizing using AWS Lambda
Week 2	Streamlit Hosting on cloud GCP/AWS Dask Implementation
Week 3	Testing Working on functionalities of UI Documentation

References

- <https://towardsdatascience.com/building-a-recipe-recommendation-system-297c229dda7b>
- <https://github.com/ajemerson/recipe-recommendation-system>
- <https://www.kaggle.com/datasets/shuyangli94/food-com-recipes-and-user-interactions>