Visualization of the data from Food.com

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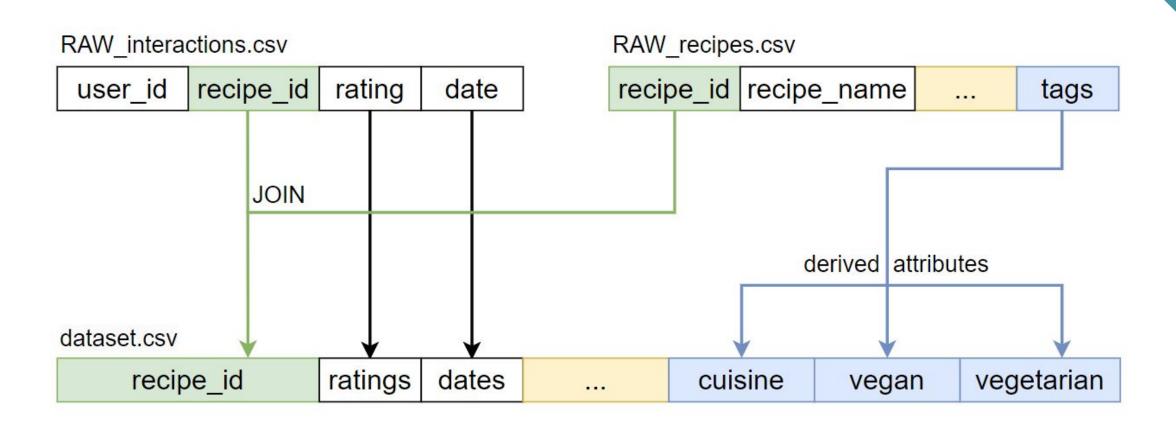Daniel Eskandar

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ORIGINAL DATABASE

- Kaggle dataset

- Scraped data from Food.com

- 180K+ recipes and 700K+ recipe reviews covering 18 years of user interactions and uploads on Food.com

- Data about ingredients, calories, types of cuisines, reviews... of each recipe

PROJECT DEVELOPMENT

- Dataset preprocessing to obtain a cleaner and more usable database

- Webpage template creation with sub-templates for each visualization

- Flask Server creation to deploy the webpage and manage the data

- Visualizations: ingredient analysis, cuisine stats, popularity analysis, cuisine similarities

- Global selection menu to allow for user interactivity and cuisine filtering

PREPROCESSING

WEBPAGE AND SELECTION MENU

- Base html file that extends templates for each visualization

- Global selection menu allows the user to dynamically change the plots and filter cuisines

- "Select All" and "Select Continent" options available for user's comfort

- Selected cuisine data is given to the templates through POST method

- Flask Server creation to deploy the webpage templates and manage the loading and sharing of data between them

Ingredient Analysis

- Lots of countries are missing & over 12k "unique" ingredients

- TOP MAP: Most popular - butter, garlic, olive oil, tomatoes, onion, soy sauce, sour cream

- TOP MAP: **Butter** ranges over **5 continents.**

- TOP MAP: **Hungary** is the only one with **sour cream.**

- BOTTOM MAP: **Scandinavians** rely too much on one ingredient

- HEATMAP: butter, onion, garlic, eggs, olive oil, tomatoes, milk, flour
  - These are the most used ingredients around the world

Cuisine Statistics

The goal is to **explore** and **compare** key distributions of cuisine properties:

- Percentage of plant-based recipes

- Average PDV of nutrients in recipes

- Calorie distribution in each cuisine's recipes

(Clicking reveals additional details, unveiling new statistics)

Popularity Analysis

o   The cuisines with most recipes:

Europe: Italian – 7410 *(total: 17344)*

North-America: American – 31179 *(total: 42888)*

Oceanian: Australia

Asian: Japanese

African: Moroccan

South African: Brazilian

In the plot we visualize the recipe commit changes each year in a normalized way

How similar are cuisines ?

- Butter: mostly used by North American and European cuisines and least in Asian cuisine.

- Olive oil: similarly used by American and Italian

- Parmesan cheese: similarly used by American and Italian cuisines and mostly by Mongolian cuisine.

- Flour: in Europe mostly used by Italy and least by Belgium. Rarely used by Cambodian cuisine.

- Sesame oil: almost only used by Asian cuisines and Austria.

THANK YOU ANY QUESTIONS?