Restaurant API service

Presented by 4d4442

Motivation

"Food is a really big thing."

We all want to eat food at restaurant that get good feedback including nationality and type of food that you like. This thing can help you finding them easier with some essential details shown.
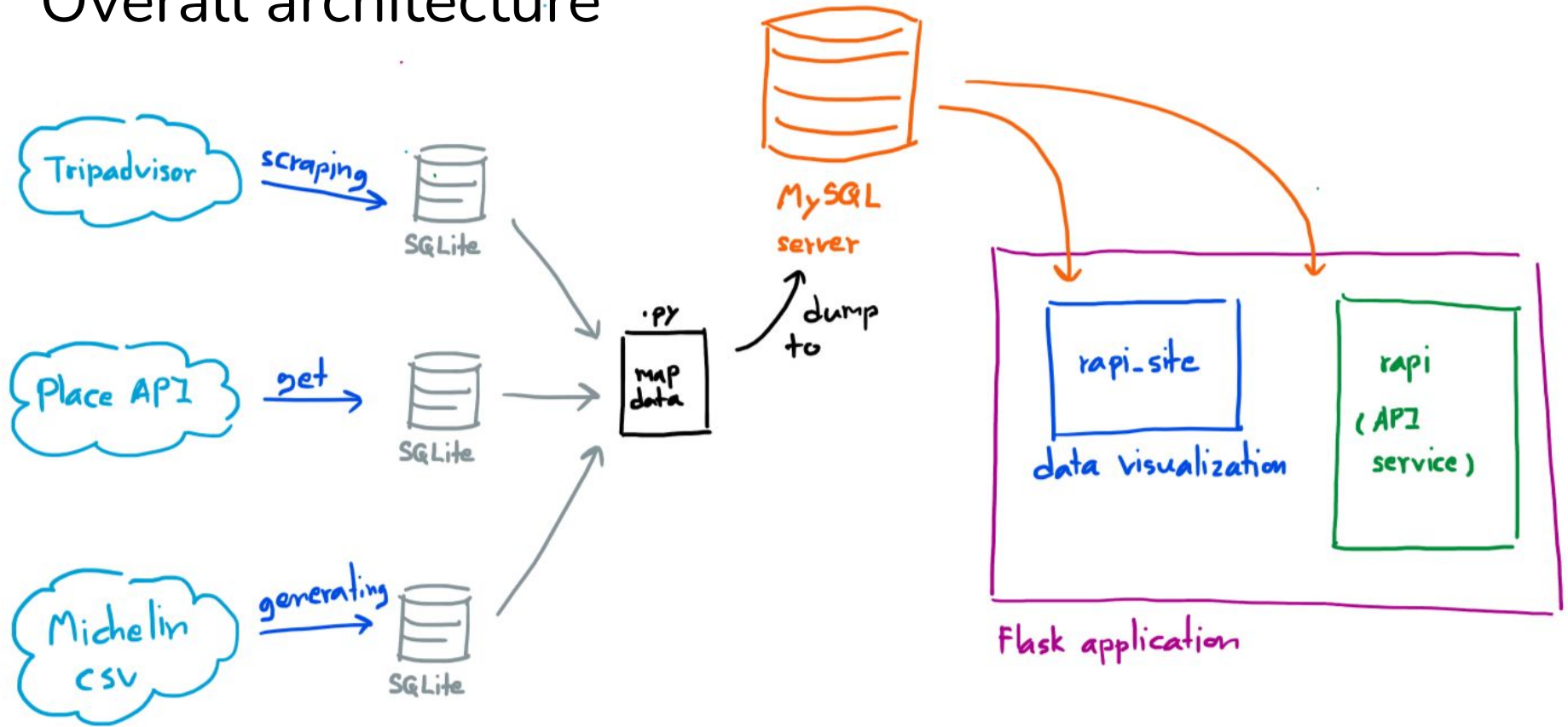
Data sources

- Google Place Search | Places API for finding restaurant info from google map

- Tripadvisor.com https://www.tripadvisor.com/Restaurants

- Michelin Restaurants

  https://www.kaggle.com/jackywang529/michelin-restaurants (2019)

Pain points

- Google Place API limits the number of requests

- Tripadvisor API **doesn't allow** access for the purpose of data analysis and academic research
  - So we needed to scrape the data instead

- Wongnai has CAPTCHA that prevents web scraping
  - Therefore, we decided to use the restaurant data mainly from Tripadvisor.com

Overall architecture

Data mapping

(webscraping)
Tripadvisor
- open_time
- close_time
- tripadvisor_rating
- adress
- cuisine

District
- use python library "geopy"
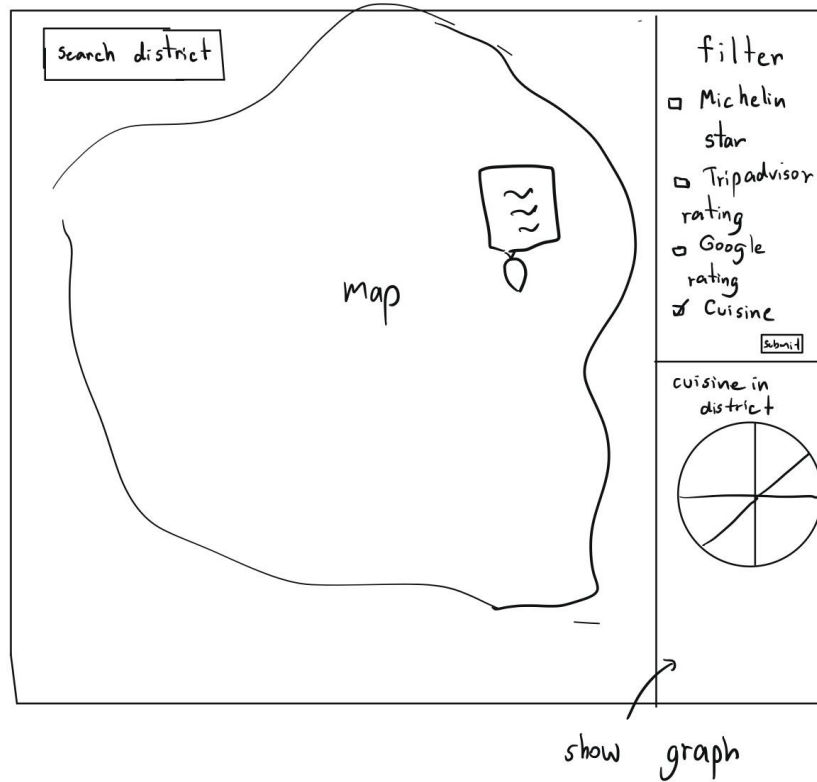
map
Tripadvisor and api
- lat
- lon

(data set)
Michelin (csv)
- has 3 tables
  ↳ check if the restaurant's name from Tripadvisor matches or not

Data visualization

Data sharing

GET	**/restaurants/**	Returns an array of restaurant object.
GET	**/restaurants/{restaurantId}**	Returns complete details of the specified restaurant.
GET	**/restaurants/michelin**	Returns a restaurant which receives Michelin Star.
GET	**/restaurants/rating/google /{restaurantId}**	Returns rating of the specified restaurant from Wongnai.
GET	**/restaurants/rating/tripadvisor /{restaurantId}**	Returns rating of the specified restaurant from Tripadvisor.

Data sharing

GET	`/districts/`	Returns an array of district object.
GET	`/districts/{districtId}/restaurants/`	Returns all restaurants with the specified district.
GET	`/cuisines/`	Returns an array of cuisine object.
GET	`/cuisines/{cuisineId}`	Returns the specified cuisine.
GET	`/cuisines/{cuisineId}/restaurants/`	Returns the array of restaurants with the specified cuisine.

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Presented by 4d4442 (Demo part)

Contents

- API endpoints demonstration (at http://localhost:5000/rapi/ui/)

- Web application demonstration (at http://localhost:5000/rapi-site/)

  - Filtering the restaurants

  - Tripadvisor and Google ratings graphs

  - Restaurants' cuisines graph