For my final project, I've decided to write the beginnings of a road trip application I'd like to make (one day it'll have road trip games and hotel/air bnb price and booking info and stuff).

My program allows for a user to search for tourist attractions in a given state and view reviews and ratings and descriptive information on the attraction. It will also return to the user places surrounding the attraction, based on their input (they will be allowed to choose the types of places they'd like to see from a provided list). They can choose to either view a map of all of the attractions, or view a map of directions to that attraction from user provided input denoting a "start" zip code.

It will start take 2 user inputs to reveal a list of tourist attractions in a given city: Input 1 will be a state query which will reveal to the user a list of cities in that state that they can view tourist attraction information. The list of cities and corresponding tourist attractions will come from this wikipedia page, which I plan to scrape and crawl based on user input:
https://en.wikipedia.org/wiki/Category:Tourist_attractions_in_the_United_States_by_city

Each link in the "subcategories" section provides me with a list of cities that there is tourist attraction information on. Once I collect use input from the city, i will then navigate to that wiki page, crawl it, and scrape the "Pages in category "Tourist attractions in ***CITY*** section for all of the attractions.

The user can then choose an attraction and view a wikipedia description about it. They can also do a search on google for specific places within a given distance of the attraction. The user will be allowed to choose from various "types" of places (https://developers.google.com/places/web-service/supported_types), which is a parameter I can feed into the google places api: https://developers.google.com/places/web-service/details. The user will also be able to see google (and possibly yelp) reviews on the attraction and the surrounding places.

The program will be able to display visual data to the user by utilizing the plotly api:

- The user can view a map of all of the "places" surrounding their current attraction based on distance
- The user can view a bar chart of the average ratings of the "places" surrounding their current location
- The user van view a bar bart of the average ratings of the attractions in the specified city
- The user can view surrounding places on a map based on rating

I plan to store to following information in tables:

- Surrounding Places: Name, Location Information, Average Rating
- Tourist Attractions: Name, Location Information, Average Rating, Date of Origin (if possible)

I believe this meets the project requirements, however, if I have time, I would also like to include the ability for the user to “map” directions. This could be done by the user collecting tourist places and getting a map or route between all of those chosen places. I’d also like to include the ability to get a map/directions from the attraction to one of the surrounding places. I also might be exploring other “interesting” graphs etc I can produce from my data in place of my original ideas. Data research doesn’t come intuitively to me so I’m still wrapping my mind around what to do with it.

I will likely be using interactive command lines within python for data presentation, but if I get the time, I will attempt to explore using flask.