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Assignment: CS417 Project 2 Report

Describing what I accomplished:

I have created a RESTful web service that allows a client to input his/her address and get a list of nearby restaurants. The information for each restaurant includes its name, address, and rating.

Implementation Details

I used Flask and Python (Version: 3.8.8) to create the web service.

I extract the value for address parameter from the request. If address parameter is missing, I return a json response with status code 400 stating "address parameter is missing". Then using my api key for geocod.io and the address as parameters, I make a get request to the geocod.io web service. If the status code of the response to this request is not 200, then I return a json response with status code 500 stating "error using service geocod.io" to the client. I use the latitude and longitude from the json response from geocod.io and my api key for yelp to make a request to yelp web service as specified. I make a similar check for 200 status code as before and return error message if needed. I traverse through the array of json objects in this response, read their values, and create my own list of dictionaries, where each dictionary has information for one restaurant. Then I create a json response using this list and return to client with 200 response code.

Note: If the address parameter is present but if it is some invalid address format like:

- "" (empty address)
- "dvhfvyfydcjdsh"
- Etc ..

Then the web service would detect that geocodio's response was not 200 and will return status code 500 error to the client with a message "error using service geocodio."

Any issues I encountered:

Initially I had a little difficulty with using Postman, however after watching a few tutorials, I was able to test my code with it. Apart from this I didn't have any issues.

A short description on the libraries/packages used:

- Installed Flask using pip
- requests

- OrderedDict [I used this to try and get exact response format for each restaurant]

These were basically all the import statements I used:

from flask import Flask, request, json, Response
import requests
from collections import OrderedDict

Starting the web service:

For the project, the source code is just a single python file called "food.py."

To run it, just navigate to the folder containing this file and type 'python food.py'

The service will start.

A short description of where you placed your Geocod.io / Yelp API key within your code:

I stored these values in the variable 'apiKey.'

Line 20: I set the variable's value to my geocod.io api key.

Line 44: I set the variable's value to my Yelp api key.