RESTful API Project

Course: INFO U762 – 01F

Semester: Spring 2024

Instructor: Dr. Grover Walters

Date: April 3, 2024

David C. Miller

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Introduction

I started looking at the provided public API list. I did not want to deal with Authentication, so I copied the list to a spreadsheet and identified the ~700 that did not need Authentication. I started narrowing these down looking for three that would work together to tell a story. I started to focus on travel, currency, weather, and food, as possibilities. After reviewing the types of data that I have access to, I decided to build a travel advisory API for the City of Los Angeles, USA. This type of API, could be added to the City’s homepage and could be modified to support other cities.

My next task was to dig into the specific APIs for each type of data that I could collect. For weather, I started with the National Weather Service (NWS) API, provided by National Oceanic and Atmospheric Administration (NOAA) (API Web Service, n.d.). The NWS API site had extensive documentation on how to pull data based on various input values. Based on my use case of provided Weather related data for Los Angeles, I chose the input value for station ID. Another part of the website provided me with a map of weather station IDs and I confirmed that Los Angeles was KCQT. The Request URL that I used is:

**https://api.weather.gov/stations/KCQT/observations/latest?require\_qc=false**

I moved this information to my Weather Rest API Jupyter Notebook at and confirmed that I would be able to pull the data correctly. Out of the data required, I decided that the two values of particular interest would be the “current weather”, which appears in the ‘testDescription’ value and “current temperature” value, which appears in the ‘temperature’ value. Since the temperature value is provided in Celsius I will need to convert that to Fahrenheit so that I can provide both values to visitors. With this information in hand, I began writing my Python to access this data and pull out the two values that I wanted to use in my application.

Sadly, I was unable to parse the JSON correctly with the NWS API. After spending at least five hours trying to complete this, I decided to move on to the Currency API and ask for help with the parsing of the JSON on the NWS API. After reviewing the list of Currency API’s I decided to try the ExchangeRate-API.com API. I was able to retrieve the JSON output and it appears to be in a relatively flat format. Next I will build my query to isolate one of the exchange rates for my application.