

1. How do web APIs work? Why are they useful?

I am old enough that I remember using EDI... which was a communication protocol used to convey orders, etc.. amongst mainframe based applications. It was very rigid and we had to pay third party intermediaries to carry the messages.

Web API is much more flexible. The service is accessible via the HTTP protocol and the request is definable from the provider of the API. Typically follows the format of URL?parameters

2. Look up 3 different public web APIs online and describe 3 endpoints from each. In your description include the URI/endpoint, the HTTP verb methods that can be sent, and a description of what happens when each verb method is sent.

- Weather API

- <https://weatherapi-com.p.rapidapi.com/future.json>

- Only supports GET – Weather for a specific location and day

- q: String of one of the following:

- City Name

- Zip

- Latitude and Longitude

- IP Address

- dt: Date between 14 days and 300 days into the future in the format of yyyy-MM-dd

- Alpha Advantage – API to get stock data

- <https://alpha-vantage.p.rapidapi.com/query>

- Only Supports GET – Gets stock information

- function: TIME_SERIES_INTRADAY,
TIME_SERIES_DAILY_ADJUSTED, TIME_SERIES_DAILY, GLOBAL_QUOTE

- Symbol – stock ticker symbol

- Real Estate API - realty-mole-property-api.p.rapidapi.com

- Only Supports GET – Real Estate information for a specific address

- Property Valuation

- requires address

- address:

3. What does REST stand for and what are some of the key concepts that identify it?

From <https://restfulapi.net/>

REpresentational **State** Transfer

- Identification of resources – interface must uniquely identify the resources involved in the interaction
- Manipulation of resources through representations – uniform presentation in the server response
- Self Descriptive Messages - should carry enough information to describe how to process the message
- Hyper Media as the engine of application state - Need only the initial URL of the application.

3. What is Maven and why do we use it? What problems does it help solve?

Maven is a build tool. It keeps track of all of the dependencies so that we don't have to. It organizes the builds so that we don't have to keep track of all the dependencies each time

4. Why do we use Swagger? What can you do with Swagger?

It creates self documentation of the APIs available by the service.

5. What is your favorite thing you learned this week?

All about the free APIs available out there.