Module 5 Summary: APIs and Data Collection

Congratulations! You have completed this module. At this point, you know that:

- Simple APIs in Python are application programming interfaces that provide straightforward and easy-to-use methods for interacting with services, libraries, or data, often with minimal configuration or complexity.
    - An API lets two pieces of software talk to each other.
    - Using an API library in Python entails importing the library, calling its functions or methods to make HTTP requests, and parsing the responses to access data or services provided by the API.
    - Pandas API processes the data by communicating with the other software components.
    - An Instance forms when you create a dictionary and then use the DataFrames constructor to create a Pandas object.
    - Method “head()” will display the mentioned number of rows from the top (default 5) of DataFrames, while method “mean()” will calculate the mean and return the values
- Rest APIs allow you to communicate through the internet, taking advantage of resources like storage, access more data, AI algorithms, and so on.
    - HTTP methods transmit data over the internet.
    - An HTTP message typically includes a JSON file with instructions for operations.
    - HTTP messages containing JSON files are returned to the client as a response from web services.
    - Dealing with time series data involves using the Pandas time series function.
    - You can get data for daily candlesticks and plot the chart using Plotly with the candlestick plot.
- The HTTP (HyperText Transfer Protocol) transfers data, including web pages and resources, between a client (a web browser) and a server on the World Wide Web.
    - The HTTP protocol is commonly used for implementing various types of REST APIs.
    - An HTTP response includes information like the type of resource, length of resource, and so on
    - Uniform resource locator (URL) is the most popular way to find resources on the web.
    - URL is divided into three parts: scheme, internet address or base URL, and route