

# Glossary: APIs and Data Collection

Welcome! This alphabetized glossary contains many of the terms you'll find within this course. This comprehensive glossary also includes additional industry-recognized terms not used in course videos. These terms are important for you to recognize when working in the industry, participating in user groups, and participating in other certificate programs.

| Term                   | Definition   |
|------------------------|--|
| API Key                | An API key in Python is a secure access token or code used to authenticate and authorize access to an API or web service, enabling the user to make authenticated requests.                                    |
| APIs                   | APIs (Application Programming Interfaces) are a set of rules and protocols that enable different software applications to communicate and interact, facilitating the exchange of data and functionality.       |
| Audio file             | An audio file is a digital recording or representation of sound, often stored in formats like MP3, WAV, or FLAC, allowing playback and storage of audio content.   |
| Authorize              | In Python, "authorize" often means granting permission or access to a user or system to perform specific actions or access particular resources, often related to authentication and authorization mechanisms. |
| Beautiful Soup Objects | Beautiful Soup objects in Python are representations of parsed HTML or XML documents, allowing easy navigation, searching, and manipulation of the document's elements and data.                               |
| Bitcoin currency       | Bitcoin is a decentralized digital currency that operates without a central authority, allowing peer-to-peer transactions on a blockchain network.   |
| Browser                | A browser is a software application that enables users to access and interact with web content, displaying websites and web applications.  |
| Candlestick plot       | A candlestick plot in Python visually represents stock price movements over time, using rectangles to illustrate the open, close, high, and low prices for a given period.                                     |
| Client/Wrapper         | A client or wrapper in Python is a software component that simplifies interaction with external services or APIs, encapsulating communication and providing higher-level functionality for developers.         |
| CoinGecko API          | The CoinGecko API is a web service that provides cryptocurrency market data and information, allowing developers to access real-time and historical data for various cryptocurrencies.                         |
| DELETE Method          | The DELETE method in Python is an HTTP request method used to request the removal or deletion of a resource on a web server.   |
| Endpoint               | In Python, an "endpoint" refers to a specific URL or URI that a web service or API exposes to perform a particular function or access a resource.  |
| File extension         | A file extension is a suffix added to a filename to indicate the file's format or type, often used by operating systems and applications to determine how to handle the file.                                  |
| find_all               | In Python, find_all is a BeautifulSoup method used to search and extract all occurrences of a specified HTML or XML element, returning a list of matching elements.  |
| GET method             | The GET method in Python is an HTTP request method used to retrieve data from a web server by appending parameters to the URL.   |
| HTML                   | HTML (Hypertext Markup Language) is the standard language for creating and structuring content on web pages, using tags to define the structure and presentation of documents.                                 |
| HTML Anchor tags       | HTML anchor tags in Python are used to create hyperlinks within web pages, linking to other web pages or resources using the <a> element with the href attribute.  |
| HTML Tables            | HTML tables in Python are used to organize and display data in a structured grid format on a web page, constructed with <table>, <tr>, <th>, and <td> elements.  |
| HTML Tag               | An HTML tag in Python is a specific code enclosed in angle brackets used to define elements within an HTML document, specifying how content should be presented or structured.                                 |
| HTML Trees             | HTML trees in Python refer to the hierarchical structure created when parsing an HTML document, representing its elements and their relationships, typically used for manipulation or extraction of data.      |
| HTTP                   | HTTP (HyperText Transfer Protocol) is the foundation of data communication on the World Wide Web, used for transmitting and retrieving web content between clients and servers.                                |
| httplib                | A library that provides a set of functions and classes to send and handle HTTP and HTTPS requests.   |
| Identify               | In Python, "identify" usually means determining if two variables or objects refer to the same memory location, which can be checked using the is operator.   |
| Instance               | In Python, an "instance" typically refers to a specific occurrence of an object or class, created from a class blueprint, with its own unique set of data and attributes.                                      |
| JSON file              | A JSON (JavaScript Object Notation) file is a lightweight data interchange format that stores structured data in a human-readable text format, commonly used for configuration, data exchange, and web APIs.   |

| Term                           | Definition  |
|--------------------------------|---|
| Mean value                     | The mean value in Python is the average of a set of numerical values, calculated by adding all values and dividing by the total number of values.   |
| Navigable string               | In Python, a Navigable String is a BeautifulSoup object representing a string within an HTML or XML document, allowing for navigation and manipulation of the text content.   |
| Plotly                         | Plotly is a Python library for creating interactive and visually appealing web-based data visualizations and dashboards.  |
| PNG file                       | A PNG (Portable Network Graphics) file is a lossless image format in Python that is commonly used for high-quality graphics with support for transparency and compression.  |
| POST method                    | The POST method in Python is an HTTP request method used to send data to a web server, often used for submitting form data and creating or updating resources.  |
| Post request                   | A POST request in Python is an HTTP method used to send data to a web server for the purpose of creating or updating a resource, typically used in web applications and APIs.   |
| PUT method                     | The PUT method in Python is an HTTP request method used to update an existing resource on a web server by replacing or modifying it.  |
| Py-Coin-Gecko                  | Py-Coin-Gecko is a Python library that provides a convenient interface for accessing cryptocurrency data and information from the CoinGecko API.  |
| Python iterable                | A Python iterable is an object that can be looped over, typically used in for loops, and includes data structures like lists, tuples, and dictionaries.   |
| Query string                   | A query string in Python is a part of a URL that contains data or parameters to be sent to a web server, typically used in HTTP GET requests to retrieve specific information.  |
| rb mode                        | In Python, "rb" mode is used when opening a file to read it in binary mode, allowing you to read and manipulate non-text files like images or binary data.  |
| Resource                       | In Python, a "resource" typically refers to an external entity such as a file, database connection, or network object that can be managed and manipulated within a program.   |
| Rest API                       | A REST API in Python is a web-based interface that follows the principles of Representational State Transfer (REST), allowing communication and data exchange over HTTP using standard HTTP methods and data formats. |
| Service instance               | In Python, a "service instance" typically refers to an instantiated object or entity representing a service, enabling interaction with that service in a program or application.                                      |
| Timestamp                      | A timestamp is a representation of a specific moment in time, often expressed as a combination of date and time, used for record-keeping and data tracking.   |
| Transcribe                     | "Transcribe" typically means converting spoken language or audio into written text, often using automatic speech recognition (ASR) technology.  |
| Unix timestamp                 | A UNIX timestamp is a numerical value representing the number of seconds that have elapsed since January 1, 1970, 00:00:00 UTC, used for time-keeping in Unix-based systems and programming.                          |
| url (Uniform Resource Locator) | In Python, a URL (Uniform Resource Locator) is a web address that specifies the location of a resource on the internet, typically consisting of a protocol, domain, and path.   |
| urllib                         | The "urllib" library in Python is used for working with URLs and making HTTP requests, including functions for fetching web content, handling cookies, and more.  |
| Web service                    | Web services in Python are software components that allow applications to communicate over the internet by sending and receiving data in a standardized format, typically using protocols like HTTP or XML.           |
| Web scraping                   | Web scraping in Python is the process of extracting data from websites by parsing and analyzing their HTML structure, often done with libraries like BeautifulSoup or Scrapy.   |
| xlsx                           | An XLSX file is a file format used for storing spreadsheet data in Excel, containing worksheets, cells, and formulas in a structured manner.  |
| xml                            | XML (Extensible Markup Language) is a text-based format for storing and structuring data using tags, often used for data interchange and configuration files.   |



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