

Programming with APIs in Python

Learn to access write programs to access or host APIs

An enormous amount of data is available behind APIs, and this course shows you both how to access it as well as build your own. You will learn how to use popular libraries to deal with APIs with a minimum amount of work.

Length: 2, 3, or 4 day workshop

Language Prerequisites: a solid grounding in Python, including an understanding of lists, dictionaries, iterators, and functions.

Technical Prerequisites: Workshop participants are required to have Python installed and be able to use virtual environments to manage third party libraries. Participants can use their preferred development environment.

Topics (2-Days)

- Serialization and deserialization of data using XML, JSON, CSV, and YAML formats
- Using Python's requests library to access an API
- Scraping web pages and processing them with Beautiful Soup when a site doesn't provide an API
- Authentication using both headers and JSON Web Tokens (JWT)
- REST interfaces
- GraphQL interfaces
- Introduction to SQL using SQLite and SQLAlchemy to access databases

Topics (Optional "Hosting" 1-Day Add-on)

- Using concurrency to speed up your API access
- Building an API using the FastAPI library

Topics (Optional "Django API" 1-Day Add-on)

- Introduction to the Django web framework
- Writing web views and accessing databases in Django
- Using Ninja to add APIs to your Django project