

Training: Python Academy
SQLAlchemy

TRAINING TERMS

2025-09-05 | 1 day | Warszawa / Virtual Classroom

TRAINING GOALS:

SQLAlchemy is THE object relational mapper used in the Python world. It provides a full suite of well known enterprise-level persistence patterns, designed for efficient and high-performing database access, adapted into a simple and Pythonic domain language.

This practical course will make sure you understand the concepts behind **SQLAlchemy**. We will focus on practical patterns of SQLAlchemy usage and see how its use can grow from very simple to more advanced.

CONSPECT:

- Getting known with SQLAlchemy
 - Drivers, connectors, engines, metadata, sessions, tables and mappers
- Simple SQL statements
- Simple ORM
 - Setting up an object relational mapping.
 - Experiment with object life cycle using plain SQLAlchemy or Declarative or Elixir.
- SQLAlchemy Philosophy
 - Usage patterns, documentations overview.
- Advanced statements
 - Examples of how to keep even advanced database usage reasonably simple with SQLAlchemy.
- ORM and Relations
 - Look at relations between mapped objects, and at the options both the database and SQLAlchemy offer.
- Advanced ORM
 - Experiment with non trivial mapping issues, such as inheritance, arbitrary selects and arbitrary relations. In this part we will also study the use of transactions in combination with the ORM.

REQUIREMENTS:

- Basic knowledge of **Python** and **object oriented programming** is required.
- If you don't know Python it is strongly recommended to take [Python for Programmers](#) before this course.
- Basic knowledge of **SQL** is necessary.

Difficulty level



CERTIFICATE:

The participants will obtain certificates signed by Python Academy.

TRAINER:

Authorized Python Academy Trainer.