

Training: Python Academy  
SQLAlchemy

## TRAINING TERMS

2025-08-01 | 1 day | Kraków / Virtual Classroom  
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.