

## Python 2 (build and host first API) #080212

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Teilnehmer: 08 -10

Das Training findet sich täglich vom 08:30 bis 17:00 statt.

Trainings-Dauer: 04.05.2026 bis zum 19.05.2026

Die ersten 3 Tage finden sich am Ort in Circle 6 am Zürich Flughafen statt.

Das Training in den Resttagen (bis zum 19.05.2025) findet sich nur Online statt.

13.05 & 14.05 sind Feiertage in Kanton Zürich

### Ziel Publikum:

Weiterbildende mit den ersten Erfahrungen in der Entwicklung der Python Packages und Erstellung der APIs.

### Software requirements on Students-Laptops:

- Basic operating system like Windows 7/8/10, macOS, or Linux
- Office, Browser and Internet Connection

### Software requirements on Training Server (by D2C):

- PyChar als integrierte Entwicklungsumgebung (open source full featured IDE )
- PostgreSQL DB (Installer: certified by EnterpriseDB for all supported PostgreDB Versions)
- SQLAlchemy/Alembic
- Pydantic (Python Package)
- Redis (NoSQL database)
- Java Script

## Requirements:

- Erfahrung und Kenntnisse mit Python 1 sind erforderlich
- Erfahrung mit Unix-Befehle sind auch erforderlich

## Key Learnings

Target: Build & Host Your First API

1. Python for Backend & API Development
2. API & Web Fundamentals
3. Building APIs with Python Frameworks
4. Database Integration
5. API Security & Authentication
6. API Documentation & Versioning
7. Testing & Debugging APIs
8. Performance & Reliability
9. Deployment & Hosting
10. Monitoring & Maintenance

## Final Outcome

After completing this training, participants will be able to:

- Design, build, and secure a REST API using Python
- Integrate databases and authentication
- Host a live API in a production environment
- Test, document, and maintain APIs professionally
- Apply backend best practices used in real projects

## Content: Python 2 (build and host first API – Intermediate Level) #080212

Module 1: Python Refresher for API Development

Target: Align Python skills for backend work

Module 2: Web & API Fundamentals

Target: Understand how APIs work

Module 3: Introduction to Python API Frameworks

Target: Select and set up an API framework

Module 4: Building Your First API Endpoints

Target: Create working API routes

Module 5: Data Handling & Persistence

Target: Store and manage API data

Module 6: Authentication & Authorization

Target: Secure your API

Module 7: API Documentation & Versioning

Target: Make your API usable by others

Module 8: Testing & Debugging APIs

Target: Ensure API reliability

Module 9: Performance & Error Handling

Target: Improve API robustness



Module 10: Security Best Practices for APIs

Target: Protect production APIs

Module 11: Hosting & Deployment Fundamentals

Target: Host your API online

Module 12: Monitoring & Maintenance

Target: Operate your API

Module 13: Capstone Project – Build & Host Your First API

Target: Apply everything learned

Final Outcome

Participants will be able to:

- Build a production-ready REST API with Python
- Secure and document APIs
- Integrate databases
- Test and debug APIs
- Host and maintain a live API