

Python für die Testautomatisierung (Englisch) - Präsenz-Training

This course covers the latest Python 3 language features and how to apply to test and process automation. The most recent updates to the standard library are covered (e.g. dataclasses, asyncio, multiprocessing) as well as the most popular 3rd party Python packages (parsing yaml, xml, html files, interacting with web services, GUI frameworks). A session on Python static analysis, including software metrics and unit testing to ensure your Python scripts are production ready and easy to maintain. For acceptance testing you will learn about Behavior Driven Testing (BDD), Keyword and Data driven test frameworks like Robot Framework. The course is presented by an international software consultant with over 20 years of experience in C/C++, Python and QA process automation.

Ziele - Ihr Nutzen

- Master the fundamentals of developing Python scripts
- Understand the main difference between Python 2 and 3
- Learn about modern features introduced in Python 3
- Get an overview of the Python standard library
- Practical exercises using Python based test frameworks

Teilnehmer

QA DevOps, test engineers wishing to automate test. This course is also suitable for programmers starting new projects in Python 3 or for those porting existing applications from Python 2.

Voraussetzungen

No previous knowledge of Python is assumed, although attendees should be familiar with at least one programming language. Prior knowledge of a scripting language (Perl, Unix/Linux shells) and object-oriented concepts is helpful but not mandatory.

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Inhalt

Python Language and Environment

- Python Interpreters & Extensions
- Python Version 2 & 3
- Coding Style
- Package & Virtual Environments Management
- Python Language: Keywords, Operators, Basic Data Types
- Built-in Functions
- User-Defined Functions, Classes, Modules and Packages
- Lambda functions, List Comprehensions, Generators, Decorators
- Standard Library Highlight: collections

Python 3 Standard Libraries

- Runtime features
- Application building blocks
- File system
- Text and regular expressions
- Dates and times

- Data persistence and exchange
- Data compression and archiving
- Cryptography
- Mathematics and data analysis
- Concurrency with processes
- Networking, Internet and Web Services
- GUI Frameworks

Python Test Frameworks

- Source Code Quality (Coding Standards, Defect Detection)
- Software Metrics (SLOC, McCabe, Halstead, Maintainability Index)
- Code coverage (Statement & Branch Coverage)
- Unit & Module Testing (Property-Based Testing; Mutation Testing: Fault-Injection)
- Integration, System & Acceptance Testing (Behavior Driven Testing; Keyword & Data-Driven Testing: Robot Framework)

Präsenz-Training

Preis *	Dauer
-	3 Tage

Anmeldecode: PYTH-TA

* Preis je Teilnehmer, in Euro zzgl. USt.

Präsenz-Training - Englisch**Dauer**

3 Tage

Coaching

Unsere Coaching-Angebote bieten den großen Vorteil, dass unsere Experten ihr Wissen und ihre Erfahrungen direkt in Ihren Lösungsprozess einbringen und damit unmittelbar zu Ihrem Projekterfolg beitragen.

Für Ihre Anfrage oder weiterführende Informationen stehen wir Ihnen gern zur Verfügung.