İleri Seviye (Advanced) Python Eğitimi

Eğitim Hakkında

The aim of our instructor-led Advanced Python training course is to expand and develop your knowledge of the Python language and the environment in which it executes.

The course provides hands-on training guided by an expert Python practitioner, for a number of advanced topics such as higher order Functional programming, curried functions, Abstract Base Classes and custom decorators. Networking is introduced via sockets and server sockets, as well as via RESTful services and Flask. Database access and logging are also presented.

The course includes thorough coverage of Threading, Processes, Futures and inter Threading / Process communications. The course concludes by introducing Reactive programming and the RxPy library.

Neler Öğreneceksiniz

Review Key Intermediate Python Concepts

- Generators, decorators, coroutines
- Processing pipelines
- Advanced Python Syntax
- Event streams

Packaging and Multitasking

- Packaging using Setuptools / Distribute and PyPI
- Virtualenv
- Python Database API to External Databases and Web
- Acquire Python database connection and setup
- Integration example: using Python with MySQL Database
- Integration example: MongoDB and PyMongo
- Bottle Python Web Framework
- Web application development with Django

Network Programming

- Socket Programming
- Web programming: urllib and WSGI
- Email handling

- HTML and XML Parsing

Distributed Python

- Dispy framework for parallel & distributed computations

- Asyncoro framework for communication and cooperation among distributed tasks

Eğitim İçeriği

Python Data Structures and Operations

- Integers and floats
- Strings and bytes
- Tuples and lists
- Dictionaries and ordered dictionaries
- Sets and frozen sets
- Data frame (pandas)
- Conversions

Object-Oriented Programming with Python

- Inheritance
- Polymorphism
- Static classes
- Static functions
- Decorators
- Other

Data Analysis with Pandas

- Data cleaning
- Using vectorized data in pandas
- Data wrangling
- Sorting and filtering data
- Aggregate operations
- Analyzing time series

Data Visualization

- Plotting diagrams with matplotlib
- Using matplotlib from within pandas
- Creating quality diagrams

- Visualizing data in Jupyter notebooks
- Other visualization libraries in Python

Vectorizing Data in Numpy

- Creating Numpy arrays
- Common operations on matrices
- Using ufuncs
- Views and broadcasting on Numpy arrays
- Optimizing performance by avoiding loops
- Optimizing performance with cProfile

Processing Big Data with Python

- Building and supporting distributed applications with Python
- Data storage: Working with SQL and NoSQL databases
- Distributed processing with Hadoop and Spark
- Scaling your applications

Extending Python (and vice versa) with Other Languages

- C#
- Java
- C++
- Perl
- Others

Python Multi-Threaded Programming

- Modules
- Synchronizing
- Prioritizing

Data Serialization

- Python object serialization with Pickle

UI Programming with Python

- Framework options for building GUIs in Python
- Tkinter
- Pyqt

Python for Maintenance Scripting

- Raising and catching exceptions correctly
- Organizing code into modules and packages
- Understanding symbol tables and accessing them in code
- Picking a testing framework and applying TDD in Python

Python for the Web

- Packages for web processing
- Web crawling
- Parsing HTML and XML
- Filling web forms automatically