Python2

Advanced Python

Advanced Python

Python2 - Version: 2.2

🕐 3 days Course

Description:

This three-day instructor-led course provides students with advanced python techniques like lambda functions, decorators, generators the course extends the Object-Oriented programming in python and focuses on memory management, efficiency multi task programming

Python is now the most popular dynamic programming language and one the most popular programming languages, just behind Java and C++. The course helps better understand python as dynamic, easy to use, powerful with relatively short development time

Intended audience:

This course is intended for programmers who are willing to master the Python language.

Prerequisites:

Have attended or studied the Introduction to Python course, or possess equivalent knowledge and skills

Objectives:

Topics:

Base types overview

- Python data types
- Python primitives
- Python Sequences
    - º List
    - º String
    - º Tuple
    - º Dictionary
    - º Set

Advanced techniques

- lambda functions
- Filter and map
- is and id
- decorators
- Iterators and generators
- Garbage collector

Files

- Open File
- Reading file data
- Writing to file
- File Position
- File Attributes

Environment

- sys module
- Command-line arguments

- Standard data streams
- Redirections
- Exiting the program
- os module
- Environment variables
- Working with directories
- Process Information

Exception handling

- Built-in Python Exceptions
- Try and Except
- Finally
- Raise
- Custom Exceptions

Interop

- Interop with Base Functions
- Working with Complex Types
- Sending Parameters by Reference and Pointers
- Sending and Receiving Structs
- Unmanaged Memory

Processes

- Creating and Managing Processes
- InerProcess Communication
- Synchronization
- Process Pool

Threads

- Creating and Managing Threads
- Synchronization
- GIL

Run Processes

- Run Executables from Python
- Receive and Process Outputs
- Popen

Sockets

- What are Sockets?
- TCP UDP Protocols
- Send and Receive Data
- Lab: Creating Server and Client Sides