



55285: Advanced Python

Duration: 2 Days

Method: Instructor-Led Training (ILT) | Live Online Training

Course Description

In this course, participants will learn advanced Python techniques. This course is taught using the latest version of Python; however, differences between the latest version of Python and older versions are noted.

Target Audience

This course is intended for:

- Persons who are already familiar with Python programming.

Prerequisites

To attend this course, candidates must have:

- Completed the *55284: Introduction to Python* course or have similar knowledge and skills such as:
 - Working with strings.
 - Working with lists, tuples and dictionaries.
 - Loops and conditionals.
 - Writing user-defined functions.

NOTE: Some exposure to HTML, XML, JSON, and SQL would be useful for this class.

Course Objectives

Upon successful completion of this course, attendees will be able to:

- After completing this course, students will be able to:
- Work with the Collections module.
- Understand mapping and filtering and lambda functions.
- Perform advanced sorting.
- Work with regular expressions in Python.
- Work with databases, CSV files, JSON, and XML.
- Write object-oriented code in Python.
- Test and debug your Python code.



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Course Topics

Module 1: Advanced Python Concepts

- Lambda Functions
- Advanced List Comprehensions
- Collections Module
- Mapping and Filtering
- Mutable and Immutable Built-in Objects
- Sorting
- Unpacking Sequences in Function Calls

Module 2: Working with Data

- Relational Databases
- CSV
- Getting Data from the Web
- JSON

Module 3: Testing and Debugging

- Testing for Performance
- The unittest Module

Module 4: Classes and Objects

- Attributes
- Behaviours
- Classes vs. Objects
- Attributes and Methods
- Private Attributes
- Properties
- Documenting Classes
- Inheritance
- Static Methods
- Class Attributes and Methods
- Abstract Classes and Methods
- Understanding Decorators

LABS INCLUDED

