

Hands-on Python Essentials Primer for Data Scientists (TTPS4809)

Modality: Virtual Classroom

Duration: 2 Days

The course of Python Essentials Primer is a kick-off for data scientists, end-users, and data analysts who want to become familiar with the use of Python to help their activities towards developmental.

About this course:

Python Essentials a beyond-level and introductory hands-on, practical training course of Python that drives the understudy from the fundamentals of running and writing scripts of Python to further developed features, for example, file operations and starting to utilize the broad use of the modules of Python. Additional emphasis is set on features one of a kind to Python that is basic to data scientists and data analysts, for example, array slices, tuples, and output formatting. This useful course furnishes an investigation of working with the main language of programming, not only a scholastic introduction of grammar and syntax. Understudies will have a strong base to further learn Python in automation, network administration, Data Science, or web development.

Course Objective:

All through the course, understudies will be driven through a progressively innovative topic series, where every subject comprises lecture, comprehensive hands-on lab exercises, group discussion, and lab review. This course is "abilities drove", intended to prepare participants in core skills of web advancement and Python beyond an intermediate level, coupling the most powerful, current, procedures with best practices.

Working inside a hands-on, engaging learning condition, directed by our master Python expert, understudies will figure out how to:

- Get acquainted with the work-saving modules of the standard library.
- Use data types of python suitably
- Scripts of Python on Unix/Windows
- Make the scripts of working Python following best procedures
- Module search path
- Sequence keywords, functions, and operators
- Write and Read files
- Comprehend the features of Python, for example, iterators and comprehensions
- Realize when to utilize assortments, for example, dictionaries, lists, and sets
- Advantages and Disadvantages of Python

Audience:

This course is proper for advanced data analysts, users, system administrators, data scientists, and web site administrators who need to figure out how to utilize Python to help their work.

Prerequisites:

This course is not subject to any prerequisites.

Course Outline:

Module 1: An Overview of Python

- What is python?
- Advantages/Disadvantages of Python
- Getting help with pydoc

Module 2: The Python Environment

- Starting Python
- Using the interpreter
- Running a Python script
- Python scripts on Unix/Windows
- Editors, IDEs, and Notebooks
- Session: Getting Started
- Using variables
- Builtin functions
- Strings
- Numbers
- Converting among types
- Writing to the screen
- Command line parameters

Module 3: Flow Control

- About flow control
- White space
- Conditional expressions
- Relational and Boolean operators
- While loops

Module 4: Sequences

- About sequences
- Lists and list methods
- Tuples
- Indexing and slicing
- Iterating through a sequence
- Sequence functions, keywords, and operators
- List comprehensions
- Nested sequences

Module 5: Working with files

- File overview
- Opening a text file
- Reading a text file
- Writing to a text file

Module 6: Dictionaries and Sets

- About dictionaries
- Creating dictionaries
- Iterating through a dictionary
- About sets
- Creating sets
- Working with sets

Module 7: Functions

- About functions
- Function parameters
- Returning values

Module 8: Using Modules

- The import statement
- Module search path
- Zipped libraries
- Creating Modules
- Function and Module aliases

Module 9: Using the Standard Library

- Paths, directories, and filenames
- Math functions
- Random numbers
- Dates and times