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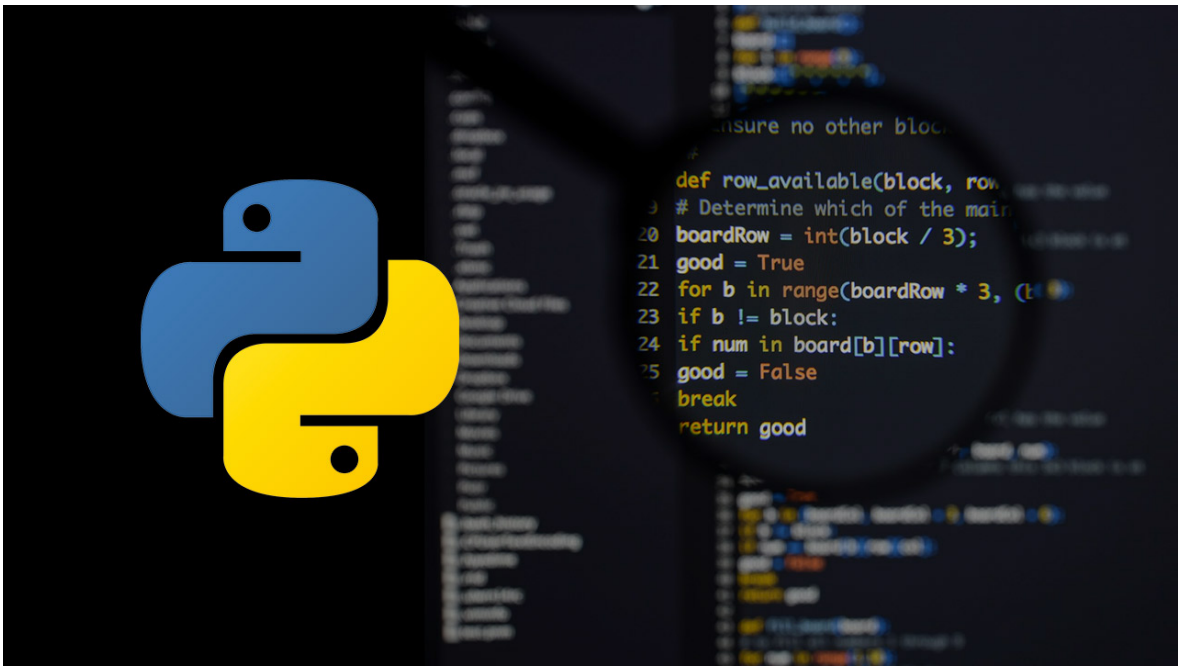
Learning Style: Virtual Classroom

Technology:

Difficulty: Beginner

Course Duration: 1 Day

Python Primer for Data Scientists | Quickstart to Python Basics (TTPS4871)



About this course:

Python Primer for Data Scientists – A Professional Introduction is a course for one-day that leads business analysts and data analysts (as well as everyone who is interested in data science) to the programming language of Python, as it is often used on online notebooks in data science. This course aims to provide students with a basic knowledge of the core concepts that can serve as an information platform to follow up with more real-world experience and in-depth training.

The course starts with a brief overview of Python, with both web notebook-based

and script-based Python demonstrations, and then dives into Python's essentials necessary for a data scientist. The course's tail end discusses a rapid integration of this expertise with the main libraries of the Data science like Pandas, NumPy, Matplotlib, and SciKit.

The normal pay of a programmer of Python is **$128,750** per year.

Course Objective:

Students will be led throughout the course through a progressively advanced topics series, where every topic comprises of demo, lecture, lab review and hands-on lab exercises. This "skills-centric," course is designed to educate students at an introductory level in core data science skills of Python, combined with best practices by the most recent, effective techniques.

Functioning within in a hands-on, engaging environment of learning, directed by our masters, students will explore:

- The way to work in web notebooks with Python interactively.
- The necessities of Python scripting
- Important concepts required to come into the world of Data Science via Python

Audience:

This intro-level program is designed for data analysts and business analysts (or every individual in the data science realm) who are already functioning easily in Excel or other environments of spreadsheets utilizing numerical data. No prior experience of programming is needed, and now the only resource needed for the course is a browser.

Prerequisite:

Take Before: Applicants must have abilities of at least equal to the below course(s) or should have joined as a pre-requisite:

- Understanding Data Science | A Technical Overview – a day (useful but not compulsory)
- Functioning with Excel

Course Outline:

Module 1: An Overview of Python

- Why Python?
- Python in the Shell
- Python in Web Notebooks (iPython, Jupyter, Zeppelin)
- Demo: Python, Notebooks, and Data Science

Module 2: 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
- Alternate loop exits

Module 4: Sequences, Arrays, Dictionaries and Sets

- About sequences
- Lists and list methods
- Tuples
- Indexing and slicing
- Iterating through a sequence
- Sequence functions, keywords, and operators
- List comprehensions
- Generator Expressions
- Nested sequences
- Working with Dictionaries
- Working with Sets

Module 5: Working with files

- File overview
- Opening a text file
- Reading a text file
- Writing to a text file
- Reading and writing raw (binary) data

Module 6: Functions

- Defining functions
- Parameters
- Global and local scope
- Nested functions
- Returning values

Module 7: Essential Demos

- Sorting
- Exceptions
- Importing Modules
- Classes
- Regular Expressions

Module 8: The standard library

- Math functions
- The string module

Module 9: Dates and times

- Working with dates and times
- Translating timestamps
- Parsing dates from text
- Formatting dates
- Calendar data

Module 10: Python and Data Science

- Data Science Essentials
- Pandas Overview
- NumPy Overview
- SciKit Overview
- MatPlotLib Overview
- Working with Python in Data Science