



PYTHON



- *Leading It Training Institute, Pune*

Introduction to Python

- ❖ What is Python and history of Python?
- ❖ Unique features of Python
- ❖ Python-2 and Python-3 differences
- ❖ Install Python and Environment Setup
- ❖ First Python Program
- ❖ Python Identifiers, Keywords and Indentation
- ❖ Comments and document interlude in Python
- ❖ Command line arguments
- ❖ Getting User Input

Python Data Types

- ❖ What are variables?
- ❖ Python Core objects and Functions
- ❖ Number and Math's
- ❖ Week 1 Assignments

List, Ranges & Tuples in Python

- ❖ Introduction
- ❖ Lists in Python
- ❖ More About Lists
- ❖ Understanding Iterators
- ❖ Generators , Comprehensions and Lambda
- ❖ Expressions Introduction
- ❖ Generators and Yield
- ❖ Next and Ranges
- ❖ Understanding and using Ranges
- ❖ More About Ranges
- ❖ Ordered Sets with tuples

Python Dictionaries and Sets

- ❖ Introduction to the section
- ❖ Python Dictionaries
- ❖ More on Dictionaries
- ❖ Sets
- ❖ Python Sets Examples

Input and Output in Python Reading and writing text files

- ❖ writing Text Files
- ❖ Appending to Files and Challenge
- ❖ Writing Binary Files Manually
- ❖ Using Pickle to Write Binary Files

Python built in function

- ❖ Python user defined functions
- ❖ Python packages functions
- ❖ Defining and calling Function
- ❖ The anonymous Functions
- ❖ Loops and statement in Python
- ❖ Python Modules & Packages

Python Object Oriented

- ❖ Overview of OOP
- ❖ Creating Classes and Objects
- ❖ Accessing attributes
- ❖ Built-In Class Attributes
- ❖ Destroying Objects

Python Exceptions Handling

- ❖ What is Exception?
- ❖ Handling an exception
- ❖ `try....except...else`
- ❖ `try-finally` clause
- ❖ Argument of an Exception
- ❖ Python Standard Exceptions
- ❖ Raising an exceptions
- ❖ User-Defined Exceptions

Python Regular Expressions

- ❖ What are regular expressions?
- ❖ The match Function
- ❖ The search Function
- ❖ Matching vs searching
- ❖ Search and Replace
- ❖ Extended Regular Expressions
- ❖ Wildcard

Python Multithreaded Programming

- ❖ What is multithreading?
- ❖ Starting a New Thread
- ❖ The Threading Module
- ❖ Synchronizing Threads
- ❖ Multithreaded Priority Queue
- ❖ Python Spreadsheet Interfaces
- ❖ Python XML interfaces

Using Databases in Python

- ❖ Python MySQL Database Access
- ❖ Install the MySQLdb and other Packages
- ❖ Create Database Connection
- ❖ CREATE, INSERT, READ, UPDATE and DELETE
- ❖ Operation DML and DDL Operation with Databases
- ❖ Performing Transactions
- ❖ Handling Database Errors
- ❖ Web Scraping in Python

Python For Data Analysis

- ❖ Introduction to numpy
- ❖ Creating arrays
- ❖ Using arrays and Scalars
- ❖ Indexing Arrays
- ❖ Array Transposition
- ❖ Universal Array Function
- ❖ Array Processing
- ❖ Array Input and Output

Pandas

- ❖ What is pandas?
- ❖ Where it is used?
- ❖ Series in pandas
- ❖ Index objects
- ❖ Reindex
- ❖ Drop Entry
- ❖ Selecting Entries
- ❖ Data Alignment
- ❖ Rank and Sort
- ❖ Summary Statics
- ❖ Missing Data
- ❖ Index Hierarchy

Matplotlib

- ❖ Python For Data Visualization
- ❖ Welcome to the Data Visualization
- ❖ Section Introduction to Matplotlib

Django

- ❖ Django Web Framework in Python
Introduction
- ❖ to Django and Full Stack Web
Development



Thank You

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