

# Python Training Course

## Syllabus

**Course Duration: 60Hrs**  
**Syllabus**

- Introduction
  - History
  - Features
  - Setting up path
  - Working with Python
  - Basic Syntax
  - Variable and Data Types
  - Operator
- Conditional Statements
  - If
  - If-else
  - Nested if-else
- Looping
  - For
  - While
  - Nested Loops.
- Control Statements
  - Break
  - Continue
  - Pass
- String Manipulation
  - Accessing Strings
  - Basic Operations
  - String slices
- Lists
  - Introduction
  - Accessing list
  - Operations
  - Working with lists
  - Function and Methods
- Tuple
  - Introduction
  - Accessing tuples
  - Operations
  - Working
  - Functions and Methods

- Dictionaries
  - Introduction
  - Accessing values in dictionaries
  - Working with dictionaries
  - Properties
  - Functions
- Functions
  - Describe or summarise a set of data
  - The mean, median, mode, Kurtosis and skewness
  - Computing Standard deviation and Variance
  - Covariance, Correlation and Causation
- Modules
  - Importing module
  - Math module
  - Random module
  - Packages
  - Composition
- Input-Output
  - Printing on screen
  - Reading data from keyboard
  - Opening and closing file
  - Reading and writing files
  - Functions
- Exception Handling
  - Exception
  - Exception Handling
  - Except clause
  - Try? finally clause
  - User Defined Exceptions
- Functions& Modules
  - Create your own functions
  - Functions Parameters
  - Variable Arguments
  - Scope of a Function
  - Function Documentation
  - Lambda Functions& map
  - n Exercise with functions
  - Create a Module
  - Standard Modules
- File Handling
  - File handling Modes
  - Reading Files
  - Writing& Appending to Files
  - Handling File Exceptions

- The with statement
- Functions & Modules
  - New Style Classes
  - Creating Classes
  - Instance Methods
  - Inheritance
  - Polymorphism
  - Exception Classes & Custom Exceptions
- Generators and iterators
  - Iterators
  - Generators
  - The Functions any and all
  - With Statement
- Data Structures
  - List Comprehensions
  - Nested List Comprehensions
  - Dictionary Comprehensions
  - Functions
  - Default Parameters
  - Variable Arguments
  - Specialized Sorts
- Collections
  - namedtuple()
  - deque
  - Chain Map
  - Counter
  - OrderedDict
  - default dict
  - UserDict
  - UserList
  - User string
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- ADVANCE PYTHON(Writing GUIs in Python (Tkinter))
  - Introduction
  - Components and Events
  - An Example GUI
  - The root Component
  - Adding a Button
  - Entry Widgets
  - Text Widgets
  - Check buttons
- Python SQL Database Access

- Introduction
- A Daytime Server
- Clients and Servers
- The Client Program
- The Server Program
- Date and Time
  - Sleep
  - Program execution time
  - more methods on date/time
- Few more topics in-detailed
  - Filter
  - Map
  - Reduce
  - Decorators
  - Frozen set
  - Collections
- Regular expression
  - Split
  - Working with special characters, date, emails
  - Quantifiers
  - Match and find all
  - character sequence and substitute
  - Search method
- Threads ESSENTIAL
  - Class and threads
  - Multi-threading
  - Synchronization
  - Treads Life cycle
  - use cases
- Accessing API ESSENTIAL
  - Introduction
  - Facebook Messenger
  - Open weather
  - Treads Life cycle

**ALL THE BEST**