

TechPledge Certified Python Developer

This course is an introduction to the Python programming language for students without prior programming experience. We cover data types, control flow, object-oriented programming, and graphical user interface-driven applications. The examples and problems used in this course are drawn from diverse areas such as text processing, simple graphics creation and image manipulation, HTML and web programming, and genomics.

Course Duration:

- 26 Hr. - Basics of Python
- 26 Hr.- Advance Python {Programming

Interview Preparation:

- 4 Hr.

Course Material:

- Lectures (PDF)
- Lab Manual (PDF)
- Recorded Video

Detail Syllabus

Introduction to Python

- History of Python
- Features of Python
- Setting up path
- Working with Python
- Basic Syntax
- Variable and Data Types
- Operator

Conditional Statements

- If
- If- else
- Nested if-else

Looping in Python

- For
- While
- Nested loops

Control Statements

- Break
- Continue
- Pass

String Manipulation

- Accessing Strings
- Basic Operations
- String slices
- Function and Methods

Lists in Python

- Introduction
- Accessing list
- Operations
- Working with lists
- Function and Methods

Tuple in Python

- Introduction of tuples
- Accessing tuples
- Operations
- Working
- Functions and Methods

Dictionaries

- Introduction
- Accessing values in dictionaries
- Working with dictionaries
- Properties

Functions in Python

- Defining a function
- Calling a function
- Types of functions
- Function Arguments
- Anonymous functions
- Global and local variables

Modules in Python

- Importing module
- Math module
- Random module
- Packages
- Composition

Input-Output in Python

- Printing on screen
- Reading data from keyboard
- Opening and closing file
- Reading and writing files
- Functions

Exception Handling

- Exception
- Exception Handling
- Except clause
- Try n finally clause
- User Defined Exceptions

Advance Python

OOPs Concept

- Class and object
- Attributes
- Inheritance
- Overloading
- Overriding
- Data hiding

Regular Expressions

- Match function
- Search function
- Matching VS Searching
- Modifiers
- Patterns

CGI

- Introduction
- Architecture
- CGI environment variable
- GET and POST methods
- Cookies
- File upload

Database

- Introduction
- Connections
- Executing queries
- Transactions
- Handling error

Networking

- Socket
- Socket Module
- Methods
- Client and server
- Internet modules

Multithreading

- Thread
- Starting a thread
- Threading module
- Synchronizing threads
- Multithreaded Priority Queue