

# Python (Core & Advance)

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Python is a general-purpose interpreted, interactive, object-oriented, and high-level programming language. It was created by Guido van Rossum during 1985-1990. Like Perl, Python source code is also available under the GNU General Public License (GPL). Python's elegant syntax and dynamic typing together make it an ideal language for scripting and rapid application development in many areas and platforms. Python supports modules and packages that encourage program modularity and code reuse. The Python interpreter and the extensive standard library are accessible in source or in binary form without charge for all key platforms and can be freely distributed.

Innovitt Global offers training in advanced Python concepts and its implementation in live projects. Our course content covers the requirements of current IT industry to provide students with the best opportunity to learn. We have best professional trainers for Python training in Lucknow who are experts with hands on ongoing Python, which gives Innovitt Global a competitive advantage over the other training institutes or company.

# Python Course Syllabus

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**Duration 01-02 Months**

## **Introduction**

- Concepts of Programming
- History of Python
- Key Features of Python
- Python Implementation
- Modes to Run Python

## **Data Types**

- None (Null) & Bool
- Numeric(int/float/complex)
- String Operations
- String Formatting
- Next & Ranges

## **Set**

- Introduction Set
- Accessing Set
- SetOperations
- Useful Function & Methods

## **Functions**

- Functions & Its Types
- Defining & Calling Function
- Function Argument Type
- Global & Local Variables
- Anonymous Functions

## **Working With Python**

- Keywords & Identifiers
- Basic Syntax & Semantics
- PIndentation & Comment
- Operator in Python
- Variable & Data Types

## **List**

- Introduction to List
- Accessing List
- list Operations
- Useful Function & Methods

## **Dictionarie**

- Introduction to Dictionarie
- Accessing Dictionarie
- Dictionarie Operations
- Useful Function & Methods

## **Modules**

- Python Modules & Packages
- Creating Modules
- Importing Module
- Introduction to PIP
- Standard Library Modules

## **Control Flow**

- Selection & Looping
- If, Elif & Else Statements
- Nesting of If-Else
- For, While & Else Loop
- Break, Continue & Pass

## **Tuple**

- Introduction to Tuple
- Accessing Tuple
- Tuple Operations
- Useful Function & Methods

## **Input-Output**

- Printing on Screen
- Reading Data From Keyboard
- Opening & Closing a File
- Reading & Writing a File
- Appending & Challenging

## **Object Oriented**

- Overview of OOPs
- Creating Classes & Objects
- Constructor Method
- Inheritance & Polymorphism
- Overriding & Overriding

# Python Course Syllabus

**Duration 03-06 Months**

## Miscellaneous

- What is Exception Handling?
- Try, Except & Finally Clause
- User Defined Exceptions
- What is Multithreading?
- Threading Module
- Synchronizing Threads
- Regular Expressions
- Matching & Searching Function

## HTML-5

- Introduction to HTML
- Title/Link/Styles/Script/Meta
- Formatting Tags
- List (OL/UL)
- Tables & Div
- Images & Hyperlink
- Form / Iframe

## Django

- Introduction to Web Technology
- Starting with Django 2.0+
- Difference Between App & Project
- MVT Design Pattern
- Migrations & URL Routing
- How to Configure Template
- Django Admin Customization

## GUI Application (TKinter)

- Introduction to TKinter
- Tk Provides Widgets & Window
- Putting & Making Icons as Buttons
- Geometry Managers (Place, Grid & Pack)
- Menu-Bar Creation
- Alert & Message Box
- GUI Project using Tkinter
- Creating .exe Installer

## CSS & Bootstrap

- Introduction
- Selectors, Properties & Cursor
- Lists Tables & Box Model
- Floats & Positioning
- Bootstrap Framework
- Media Responsiveness
- Grid & Components

## Assignments

- Implementing HTML Form in ASP
- Alert & Notification Using JS
- Working with Image & Media
- Implementing Responsiveness
- Performing CRUD Operations in SQL
- Slicing PSD to HTML
- Creating UI, Links & Navigation

## My-SQL

- Introduction to MySQL
- Basic SQL Query Syntax
- DDL & DML Operation
- Conditional Statement
- Operators & Clause
- Key Constraints & Joins
- Overview of NoSQL
- Integrating Python with NoSQL

## JavaScript

- Introduction JS
- Variable Declaration
- Operators
- Control Statements
- Understanding Arrays
- Function Declaration
- Built In Functions

## Live Project

- Debugging & Execution App
- Configuring Django Servers
- Publishing & Deploying to Server
- Admin Panel (Creating Superuser)
- Server
- Authentication in Django Project Helps to Registration Redux Module