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Python Syllabus

Python Training in Bangalore. Python, that's used by thousands of people to do things from testing microchips at Intel, to powering Instagram, to building video games with the PyGame library. It is the fourth most popular language according to an IEEE survey, behind old classics Java, C, and C++? So in celebration of our two new Python. Learning Python is very important in this era. You want to learn Python in a Real Time Manner with Practical Examples; you are in

 a right Track!

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Course Modules

SECTION I

Overview

- ➢ Why do we need Python? Program structure

Environment Setup

- ➢ Python Installation
- ➢ Execution Types

What is an interpreter?

- ➢ Interpreters vs Compilers
- ➢ Using the Python Interpreter
- ➢ Interactive Mode
- ➢ Running python files
- ➢ Working with Python shell
- ➢ Integrated Development Environments
- ➢ (IDES)Interactive Mode Programming
- ➢ Script Mode Programming
- ➢ Basic Concepts

Types of Operator

- ➢ Python Arithmetic Operators
- ➢ Python Comparison Operators   Python Assignment Operators
- ➢ Python Bitwise Operators
- ➢ Python Logical Operators
- ➢ Python Membership Operators (in, not in)
- ➢ Python Identity Operators (is, is not)
- ➢ Python Operators Precedence

Data Types

- ➢ Variables
- ➢ Assigning Values to Variables
- ➢ Multiple Assignment

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- Python Numbers

Python Strings

- Accessing Values in Strings
- String Special Operators
- String Formatting Operator
- Triple Quotes
- Built-in String Operations

Python Lists

- Accessing Values in Lists
- Updating Lists
- Delete List Elements
- Basic List Operations
- Indexing, Slicing, and Matrixes
- Built-in List Functions & Methods

Python Tuples

- Accessing Values in Tuples
- Updating Tuples
- Delete Tuple Elements
- Basic Tuples Operations
- Indexing, Slicing, and Matrixes
- No Enclosing Delimiters
- Built-in Tuple Functions

Loops and Decision Making

- if statements
- if...else statements
- nested if statements while loop
- for loop
- nested loops
- Loop Control Statements break statement
- continue statement pass statement

SECTION 2

Functions

- Defining a Function
- Syntax
- Calling a Function

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- Pass by reference vs value
- Function Arguments Required arguments Keyword arguments Default arguments
- Variable-length arguments
- The Return Statement
- Scope of Variables
- Global vs. Local variables

Basic OOPs Concept

- Creating class in Python
- Documented String
- Private Identifier
- Constructor
- Inheritance
- Polymorphism

Python Modules and Packages

- Framework vs Packages
- Folium Introduction
- Why are modules used?Creating modules
- The import Statement
- The from...import Statement
- The from...import * Statement
- Locating Modules
- The PYTHONPATH Variable
- Namespaces and Scoping
- The dir( ) Function
- The globals() and locals() Functions
- The reload() Function
- Packages in Python
- **Decorator, Iterator and Generator**

Anonymous Function

- **Lambda**
- **Map**
- **Filter**
- **Reduce**

SECTION 3

File Manipulation

- **Opening Text File**
- **Working with a File on Python**
- **The open function**
- **File modes**
- **The file object attributes close() method**
- **write() method read() method Files: Input**

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- ➢ **Files: Output**
- ➢ **Reading files**
- ➢ **Renaming & deleting files**
- ➢ **Writing into a file remove() method**

Python GUI

- ➢ **Basic Operations using Tkinter**
- ➢ **Buttons and Textbox**
- ➢ **Menu Bar**
- ➢ **Message Box and Radio Button**
- ➢ **Checkbox and Event Creating**
- ➢ **Creating Application in GUI**

SQL and Python

- ➢ **Overview of NoSQL**
- ➢ **Integrating Python with NoSQL**

Project Demonstration Tkinter with SQL Other Concepts

- ➢ **Errors and Exception Handling**
- ➢ **Standard exceptions Assertions in Python The assert Statement What is Exception?**
- ➢ **Handling an exception**
- ➢ **Syntax**
- ➢ **The except Clause with No Exceptions**
- ➢ **The except Clause with Multiple Exceptions**
- ➢ **The try-finally Clause**
- ➢ **Argument of an Exception**
- ➢ **Example with Tkinter Application**
- ➢ **Regular Expression**
- ➢ **Powerful Utilities**
- ➢ **Multithreading**
- ➢ **List Comprehensive**
- ➢ **Shallow and Deep Copy**
- ➢ **Unit testing**
- ➢ **Advanced Concept – Overviews**

Networking Overview

- ➢ **Sending and Receiving Email by Python**
- ➢ **Basics of Pandas and Numpy**
- ➢ **How to use Anaconda**
- ➢ **How to create dashboard**
- ➢ **Overview of Django**