

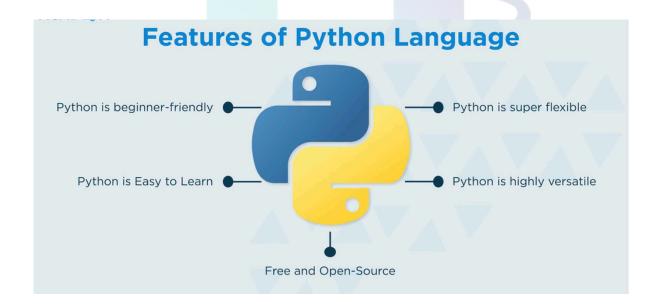


**Learnomate Technologies** is the Information technology company which provide training on different IT Technologies.

Out of that **Python** is the one of the technology.

Course structure design in such a way that student will learn from Basic concepts to advance.

**Python** is an interpreted, object-oriented programming language. Python is a high-level programming language. It is a dynamically typed language. It's high-level built-in data structures, combined with dynamic typing and dynamic binding. It is very useful for Rapid Application Development.









# **COURSE OVERVIEW**

# **Module 1: 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 Maths

#### **Module 2: Control Statements**

- if-else
- if-elif-else
- while loop
- for loop
- break
- continue
- assert
- pass
- return









# Module 3: 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

# **Module 4: Python Dictionaries and Sets**

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

# Module 5: 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

# Module 6: 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









# Module 7: Python Object Oriented

- Overview of OOP
- The self variable
- Constructor
- Types Of Variables
- Namespaces
- · Creating Classes and Objects
- Inheritance
- Types of Methods
  - Instance Methods
  - Static Methods
  - Class Methods
- Accessing attributes
- Built-In Class Attributes
- Destroying Objects
- Abstract classes and Interfaces
- Abstract Methods and Abstract class
- Interface in Python
- Abstract classes and Interfaces

# **Module 8: Exceptions**

- Errors in Python
- Compile-Time Errors
- Runtime Errors
- Logical Errors
- 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

# **Module 9: Python Regular Expressions**

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

# Module 10: Python Multithreaded Programming

- What is multithreading?
- Difference between a Process and Thread
- Concurrent Programming and GIL
- Uses of Thread
- Starting a New Thread
- The Threading Module
- Thread Synchronization
  - Locks
  - Semaphore
- Deadlock of Threads
- Avoiding Deadlocks
- Daemon Threads







# Module 11: Using Databases in Python

- Python MySQL Database Access
- Install the MySQLdb and other Packages
- Create Database Connection
- CREATE, INSERT, READ Operation
- DML and DDL Oepration with Databases

# Module 12: Data Science Using Python

# • Numpy:

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

#### • Pandas:

- -What are pandas?
- -Where it is used?
- -Series in pandas
- -Index objects
- -Reindex
- -Drop Entry
- -Selecting Entries
- -Data Alignment
- -Rank and Sort
- -Summary Statics
- -Index Hierarchy
- -Matplotlib: Data Visualization
- -Python for Data Visualization
- -Welcome to the Data Visualization Section
- -Introduction to Matplotlib







# Module 13: Graphical User Interface

- GUI in Python
- Button Widget
- Label Widget
- Text Widget

# TRAINING HIGHLIGHTS

- Recording Access shared to students on Learnomate App
- Professional Resume building by Industrial working mentors
- Placement assistance/Job requirement notification support/HR contacts
- Training Certificate: Receive a recognized certificate upon course completion
- LinkedIn, <u>Naukri.com</u> Profile: Enhance your online presence with professionally curated profiles.
- Flexible Learning Options: Choose between offline and online training to suit your schedule.
- Interview Preparation, Mock Interviews: Nail your interviews with our tailored preparation and mock interview sessions
- Real-time Scenarios Explained: Learn through practical examples to master real-world applications.
- ? Doubt Sessions: Clarify your doubts through dedicated doubt-clearing sessions.







# **CONTACT DETAILS**

If you required any further information, please fill free to contact us.

# Learnomate Technologies Pvt. Ltd

### • Main Branch:

(Sai Luxuria, Office No 15, 3rd Floor, Bhumkar Chowk, Wakad, Pune, Maharashtra, 411057 India)

#### **Contact Details:**

Call/WhatsApp: +91 7757062955

+91 7822917585

Email: info@learnomate.org

------

#### Kalewadi Branch.

Office no.216, Solitaire business hub, 2nd floor, Kaspate Wasti, Wakad, Pune, Maharashtra 411057

#### **Contact Details:**

Call/WhatsApp: +91 8983069523

Email: info@learnomate.org

\_\_\_\_\_

# Hyderabad Branch

4th Floor, GKB Opticals Building, opposite to westsides himayat nagar, Hyderabad, Telangana 500029

#### **Contact Details:**

Call/WhatsApp: +91 75585 04681 / +91 7558237682

Email: hyd@learnomate.org / info@learnomate.org









# THANK YOU

# **FOLLOW US**

- https://www.youtube.com/@learnomate
  - https://www.linkedin.com/company/learnom atetechnologies/
  - https://www.facebook.com/learnomate
- https://www.instagram.com/learnomate/



