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## A Steps towards the bright future

**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.

### Features of Python Language

Python is beginner-friendly

Python is Easy to Learn



Python is super flexible

Python is highly versatile

Free and Open-Source



## 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



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### A Steps towards the bright future

- 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, [Naukri.com](http://Naukri.com) 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

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