

# Python







# About Us?

We are a group of individuals who have worked in the field of the IT industry in various segments. We provide training in software development, software testing, web development, and digital marketing. Our style of training combines high-quality theoretical education with extensive practical exposure to live projects along with extensive placement assistance.

# Why we?

- we have more than 9+ years of experienced trainers.
- We deliver live interactive training to students
- 100% Placement Assurance
- we provide mock interviews, soft skills interview sessions from industry experts.
- Industry ready syllabus.

## Modules We Cover



### COURSE DURATION & ELIGIBILITY

### **Duration:**

Weekday Batches - 4 Months, Weekend batches - 4 to 5 Months Eligibility:

Bsc, BCS, BCA, BE, B.Tech, MSc, MCS, MCA, M.Tech (No Previous Programming Knowledge Required)

## Python Course Syllabus

#### 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 the variables?
- Python Core objects and Functions
- Number and Maths
- Assignments

#### **Control Statements**

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

#### List, Ranges & Tuples in Python

- IntroductionLists in Python
- More about Lists
- Understanding Iterators
- Generators, Comprehensions and Lambda Expressions
- Generators and YieldNext and Ranges
- Understanding and using Ranges
- More About Ranges
- Ordered Sets with tuples

#### **Python Dictionaries and Sets**

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

#### **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

#### 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

#### **Python Object Oriented**

- Overview of OOP
- The self variable
- ConstructorTypes 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 classInterface in Python
- Abstract classes and Interfaces

#### **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

## Python Course Syllabus

#### **Python Regular Expressions**

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

#### 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

#### **Using Databases in Python**

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

#### **Data Science Using Python**

- Numpy:
- Introduction to numpy
- Creating arrays
- Indexing Arrays
- Array Transposition
- Universal Array Function
- Array Processing
- Array Input and Output
- Matplotlib: Data Visualization
- Python for Data Visualization
- Welcome to the Data Visualization Section
- Matplotlib
- Pandas

#### **Front End Technologies**

- HTML, CSS, Jquery, Bootstrap, Javascript
- GUI in Python
- Button Widget
- Label Widget
- Text Widget
- Rest Api

#### Django Web Framework in Python

- Django overview
- Creating a project
- Apps life cycle
- Admin interface
- Creating views
- URL Mapping
- Template system
- ModelsForm details
- Testing
- Page redirection
- Sending Emails
- Deploying Django framework
- Form processing
- File uploading
- Cookie handling
- Sessions, caching and comments
- RSS,AJAX
- Sending Emails
- GitHub , Bigbucket

#### **Overview of Flask**

- Introduction to Flask
- Project Structure in Flask

#### **Real Time Project with Django**



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