

PYTHON

- **Introduction To Python**

- Installation and Working with Python
- Understanding Python variables
- Python basic Operators
- Understanding python blocks

- **Python Data Types**

- Declaring and using Numeric data types: int, float, complex
- Using string data type and string operations
- Defining list and list slicing
- Use of Tuple data type

- **Python Program Flow Control**

- Conditional blocks using if, else and elif
- Simple for loops in python
- For loop using ranges, string, list and dictionaries
- Use of while loops in python
- Loop manipulation using pass, continue, break and else
- Programming using Python conditional and loops block

- **Python Functions, Modules And Packages**

- Organizing python codes using functions
- Organizing python projects into modules
- Importing own module as well as external modules
- Understanding Packages
- Powerful Lamda function in python
- Programming using functions, modules and external packages

- **Python String, List And Dictionary Manipulations**

- Building blocks of python programs
- Understanding string in build methods
- List manipulation using in build methods
- Dictionary manipulation
- Programming using string, list and dictionary in build functions

- **Python File Operation**

- Reading config files in python
- Writing log files in python
- Understanding read functions, read(), readline() and readlines()
- Understanding write functions, write() and writelines()
- Manipulating file pointer using seek
- Programming using file operations

- **Python Object Oriented Programming - Oops**

- Concept of class, object and instances
- Constructor, class attributes and destructors
- Real time use of class in live projects
- Inheritance , overlapping and overloading operators
- Adding and retrieving dynamic attributes of classes
- Programming using Oops support

- **Python Regular Expression**

- Powerful pattern matching and searching
- Power of pattern searching using regex in python
- Real time parsing of networking or system data using regex
- Password, email, url validation using regular expression
- Pattern finding programs using regular expression

- **Python Exception Handling**

- Avoiding code break using exception handling
- Safe guarding file operation using exception handling
- Handling and helping developer with error code
- Programming using Exception handling

- **Python Database Interaction**

- SQL Database connection using python
- Creating and searching tables
- Reading and storing config information on database
- Programming using database connections

- **Python Multithreading**

- Understanding threads
- Forking threads
- Synchronizing the threads
- Programming using multithreading

- **Contacting User Through Emails Using Python**

- Installing smtp python module
- Sending email
- Reading from file and sending emails to all users addressing them directly for marketing

- **Python CGI Introduction**

- Writing python program for CGI applications
- Creating menus and accessing files Server client program