

# IT SPICE PRIVATE LIMITED

ADDRESS- PLOT NO.C2, OPPO FIRE BRIDAGE, SEC-4,  
AIROLI NAVI MUMBAI-400 708

Contact no.8779961039

## **Module 1 - Introduction to Python and Computer Programming**

- Python- a tool, not a reptile
- There is more than one Python
- Let's start our Python adventure

## **Module 2 - Data Types, Variables, Basic Input-Output Operations, Basic Operators**

- Your first program
- Python literals
- Operators - data manipulation tools
- Variables - data-shaped boxes
- How to talk to computer?

## **Module 3 - Boolean Values, Conditional Execution, Loops, Lists and List Processing, Logical and Bitwise Operations**

- Making decisions in Python
- Python's loops
- Logic and bit operations in Python
- Lists - collections of data
- Sorting simple lists - the bubble sort algorithm
- Lists - some more details
- Lists in advanced applications

## **Module 4 - Functions, Tuples, Dictionaries, and Data Processing**

- Writing functions in Python
- How functions communicate with their environment?

- Returning a result from a function
- Scopes in Python
- Let's make some fun... sorry, functions
- Tuples and dictionaries

### **Module 5 - Modules, Packages, String and List Methods, and Exceptions**

- Using modules
- Some useful modules
- What is package?
- Errors - the programmer's daily bread
- The anatomy of exception
- Some of the most useful exceptions
- Characters and strings vs. computers
- Python's nature of strings
- String methods
- Strings in action
- Four simple programs

### **Module 6 - The Object-Oriented Approach: Classes, Methods, Objects, and the Standard Objective Features; Exception Handling, and Working with Files**

- Basic concepts of object programming
- A short journey from procedural to object approach
- Properties
- Methods
- Inheritance - one of object programming foundations
- Exceptions once again
- Generators and closures
- Processing files
- Working with real files