

# **Python**

Python is a widely used general-purpose, high-level programming language. Its design philosophy emphasizes code readability, and its syntax allows programmers to express concepts in fewer lines of code than would be possible in languages such as C++ or Java. The language provides constructs intended to enable clear programs on both a small and large scale. Python supports multiple programming paradigms, including object-oriented, imperative and functional programming or procedural styles. It features a dynamic type system and automatic memory management and has a large and comprehensive standard library. Python interpreters are available for installation on many operating systems, allowing Python code execution on a wide variety of systems. This two day workshop aims to help participants gain practical knowledge of these.

**Topics Covered:** 

**DAY 1:** 

## Session 1

Introduction to python (Using PowerPoint Slides)

Writing Simple Programs

#### Session 2

**Discuss How Python Program runs** 

Types and Operations in python

**Numbers** 

Strings

**Lists and Tuples** 

Dictionaries

Files

Statements and Syntax

Assignments, Expressions and Print Statements

Conditional constructs

**Iterative Constructs** 



### **DAY 2:**

### Session 3

Introduction to Functions and Lambda Forms

Functions and Arguments and Scope

**List Comprehensions** 

Generators

## Session 4

**Understanding Modules in Python** 

**Module Packages** 

Package imports

Mixed usage modes

Introduction to OO Programming in python

Class coding basics

OOP and Inheritance

**New Styled Classes** 

Introduction to Exceptions

**Duration:** The duration of this workshop will be two consecutive days, with eight hour session each day in a total of sixteen hours properly divided into theory and hands on sessions.

Fees: Rs. 1200/- per head inclusive of all taxes.

