Skillsfuture @ Python Programming

Objective:

This course will introduce the concept of structured programming for "Python". It will help participants to understand programming and develop working programs using "Python". Participants will be given intensive hands-on practices to design, write, debug, test and implement Python programs.

Who should Attend?

This course is targeted at an individual who has a keen interest in programming with no programming background. Participants must be Computer literate and has some basic knowledge and usage of Windows Operating System and Editor.

Equipment:

Require 01 x Windows-based desktop/notebook computer with a IDLE Python shell installed.

Course Outline

Introduction to Python

- The Origin of Python Language
- Install and Working with Python IDLE
- Understanding Python variables
- Python basic Operators
- Understanding Python blocks

Data types in Python

- Declaring and using Numeric data types
- Using string data type and string operators
- Defining list and list slicing
- Use of Tuple data type

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

Functions, Modules & Packages

- Organizing python codes using functions
- Organizing python projects into modules
- Importing modules
- Understanding Packages
- Programming using functions, modules and external packages

String, Array, List and Dictionary

- Building blocks of python programs
- Understanding string
- Array, List and Dictionary manipulation
- Programming using string,Array list and dictionary

File operation

- Reading and writing files
- Handling of files (text files, CSV or spreadsheets)
- Programming using file operations

Regular Expression and Exception Handling

- Powerful pattern matching and searching
- Avoiding code break using exception handling
- Programming using Exception handling

Object Oriented Programming–Oops

- Concept of class, object and instances
- Constructor, class, attributes and destructors
- Inheritance, overlapping and overloading operators
- Programming using Oops

Programming Exercises & Assignment

- End of Chapter / Lesson Exercises
- Mini Project