



## Python Essentials – Part 2 (Intermediate)

### Syllabus



#### 1. Modules, packages, and PIP

Importing and using Python modules; using some of the most useful Python standard library modules; constructing and using Python packages; PIP (Python Installation Package) and how to use it to install and uninstall ready-to-use packages from PyPI.

#### 2. Strings, String and List Methods, Exceptions

Characters, strings and coding standards; Strings vs. lists – similarities and differences; Lists methods; String methods; Python's way of handling runtime errors; Controlling the flow of errors using try and except; Hierarchy of exceptions.

#### 3. Object-Oriented Programming

Basic concepts of object-oriented programming (OOP); The differences between the procedural and object approaches (motivations and profits); Classes, objects, properties, and methods; Designing reusable classes and creating objects; Inheritance and polymorphism; Exceptions as objects.

#### 4. Miscellaneous

Generators, iterators and closures; Working with file-system, directory tree and files; Selected Python Standard Library modules (os, datetime, time, and calendar.)