Eternal Analytics
Solutions Pvt. Ltd.

1. Course Outline

Module 1: Python Overview

- In this module, you learn about:
- Enter statements into the Python Console
- Identify and access documentation

Module 2: Working with Numbers and Strings

- In this module, you learn about:
- Define an object and a type
- Assign objects to variables
- Employ arithmetic operators
- Use string operations and methods
- Index and slice strings
- Make decisions using the if statement

Module 3: Collections

- In this module, you learn about:
- Learn about lists, tuples, dictionaries and sets
- Create and modify list operators and methods
- Index and slice lists and tuples
- Create and process dictionaries using functions and methods
- Perform set arithmetic
- Test for membership in a collection
- Iterate using for and while loops
- Apply list comprehensions

Module 4: Functions

- In this module, you learn about:

- Create functions
- Call functions using positional and keyword argument passing
- Handle unlimited numbers of keyword or positional arguments
- Return values from functions
- Know the 4 levels of scope
- Create and call lambda functions

Module 5: Object-Oriented Programming

- In this module, you learn about:
- Define classes
- Add attributes using the constructor method
- Add additional methods to objects
- Access class attributes
- Leverage inheritance

Module 6: Modules

- In this module, you learn about:
- Import additional modules
- Access attributes from another namespace
- Inspect the current namespace
- Test the __name__ attributes
- Access modules from the standard library
- Navigate package contents

Module 7: Managing Exceptions and Files

- In this module, you learn about:
- Handle exceptions raised by Python
- Raise exceptions
- Open, close, read and write to files
- Iterate through a file
- Leverage the context manager to open and close files
- Define the 3 standard streams

Module 8: Accessing Relational Databases with Python

- In this module, you learn about:

- Describe a relational database
- Describe the steps to access a database from a Python program
- Create a database connection
- Interact with the database through a cursor
- Execute SQL statements using a cursor