

# **PCAT – Certified Associate Tester with Python**

**Prerequisites: PCEP + PCAP (equivalent skills)**

**Formal: NO**

## **Module 1: Software Testing Essentials**

- Software Testing Concepts and Terminology
- Levels of Testing
- Software Testing Definitions
- Testing Principles
- Start and End of the Testing Process
- The Test Pyramid
- Code Coverage

## **Module 2: Test Automation and Code Refracting**

- The Goal and Importance of Test Automation
- The Code Refracting Loop
- Code Refracting

## **Module 3: Assertions, Context Managers, Decorators and Methods**

- The Assertion Statement
- Context Managers
- Function Decorators
- Class Decorators
- Different Types of Python Methods

## **Module 4: Foundations of Unit Testing**

- Anatomy of a Unit Test
- xUnit Architecture
- Running Tests
- Good Practices
- Specialized Assertions
- Unit Tests as a source Documentation
- AAA Pattern used in Practice
- Using the Unit test Module

## **Module 5: Advanced Unit Testing Techniques**

- Unit Test Preparation
- Unit Test Parameterization
- Marking Tests for Special Conditions
- Selective Test Execution
- Using Test Doubles
- Mocking with Patch

- Handling Exception in Unit Tests

## **Module 6: Test-Driven and Behaviour-Driven Development**

- Test Driven Development Fundamentals
- Implementing the Red Green Refractor Phases
- Behaviour Driven Development Fundamentals