Certified Software Test Professional - Associate Level Training

This course is essential to every software professional involved in software testing: test engineers and test analysts interested in performing effective planning, designing, and monitoring all test activities. User acceptance testing teams responsible for verifying system performance and functionality, development teams interested in performing effective unit and integration testing, development and test managers interested in gaining better control over the different test activities and the quality of the software product. This course offers a systematic approach to effective software test planning and test case design.

Outline

- **Module 1: Concepts and Terminology**
  - Purpose of Software Testing
  - Testing defined
  - Testing concepts and test design methodology
  - Requirements
  - Scenarios and scenario-based development and testing
  - Test cases
  - Test scripts/procedures
  - Strategies for Software Testing
  - Black box/Glass box/Gray box testing
- **Module 2: Best Software Testing Practices**
  - Testing without requirements or with poor requirements
  - Coping with fast pace incremental and highly iterative development processes
  - Quality requirements: the unspoken of and the untestable
  - Pre-designed tests Vs ad hoc testing
  - Systematic Negative Testing (no guessing)
  - Tracking your test execution progress for effective status reporting
  - Getting the most out of your Regression Testing
  - Understanding the Test process: Test Planning, Test Design, and Test Execution
  - Different Test Automation tools
  - Static Testing
- **Module 3: Testing levels**
  - Unit testing

- Integration testing
- System testing
- Major areas of systems testing
- Usability and GUI testing
- GUI navigation diagrams
- User acceptance
- **Module 4: Test Case Design Techniques for Unit, system and user acceptance testing**
- Strategies for generating test cases
- Requirements-Based Test Design Techniques
  - Equivalence Class Partitioning
  - Boundary Value Analysis
  - Cause-Effect Diagram
  - Decision Tables
- Code-Based Test
  - Statement/decision/condition coverage
  - Path coverage
  - Program complexity and basis path coverage
- **Module 5: System and User Acceptance Test Planning**
- Why plan
- Developing a test strategy
- Test documentation
  - Components of a test plan
  - A test plan template
  - Creating a systems test plan
  - Identification of the test plan
  - Systems test environment
  - Systems test objectives and scope
  - Systems test approach
  - Systems test staffing and responsibilities
  - Hardware/software/network requirements
  - Testing tools

- Systems test deliverables
- Systems test tasks
- **Module 6: Systems Test Design**

o Test design basics

o Test design activities

o Deliverables of the test design phase

o Major areas of system testing

o Business requirement testing

o Preparing the Test Design Specification

- Defining test conditions
- Testing for missing business requirements
- Defining test cases
- Identifying data needed to execute tests
- Defining baseline data
- Determining expected results
- Defining test cycles