

## Certified Cloud Tester - Advanced Level (CCTAL)™

### Course Outline & Module Information



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#### What Modules are covered?

##### Module 1 - Functional Testing of Cloud Applications

- 1) SaaS
- 2) Pros and Cons
- 3) Layers of Cloud Testing
- 4) Views of Testing
- 5) Identifying Functions to Test
- 6) How Functions are Implemented
- 7) Service Implementation
- 8) Prioritizing Functions
- 9) Testing Workflows
- 10) Taking the Organizational View vs. Product View
- 11) Methods
- 12) The Relationship Between Process and Data
- 13) Structured Testing
- 14) Physical Items
- 15) Physical Test Metrics
- 16) Functions
- 17) Metrics
- 18) Time Budgeter
- 19) METS iPhone App
- 20) Agile Testing
- 21) The Basis for Test Conditions
- 22) Business Process Testing
- 23) Classification Trees Using CTE-XL
- 24) Evaluating Tests
- 25) Characteristics of Good Incident Reports
- 26) Incident Reporting and Tracking - Things You Need to Know
- 27) Sample Incident Categories
- 28) Sample Incident Priorities
- 29) How Can This Data be Used?
- 30) Regression Testing

##### Module 2 - The Role of Test Automation

- 1) How Automation Can Help in Cloud Testing
- 2) The Risks
- 3) Which Functions and Tests Can be Automated?
- 4) Tool Options

##### Module 3 - Testing Cloud Security

- 1) How Important is Security?
- 2) Cloud Security Advantages
- 3) Security Relevant Cloud Components
- 4) Cloud Security Risks
- 5) Key Security Questions
- 6) The Nature of Security Tests
- 7) Compliance
- 8) What are Your Compliance Requirements?
- 9) Compliance Issues
- 10) Data Security Risks
- 11) Volume-based Encryption
- 12) Application Level Encryption
- 13) File-based Encryption
- 14) Policy and Key Management
- 15) The Role of SLAs
- 16) On-premises Key Management
- 17) Auditing
- 18) The Threat
- 19) The "Hardware Roof of Trust"
- 20) Governance
- 21) A Process for Cloud Security Testing
- 22) Putting it Together
- 23) Guidelines from NIST
- 24) The Cloud Security Alliance
- 25) Further Resources

##### Module 4 - Testing Cloud Performance

- 1) Examples of Cloud Applications and Performance Concerns
- 2) How We Got Here

- 3) The Performance Impact of Cloud Computing
- 4) Service Level Agreements
- 5) Performance Through the Cloud
- 6) Profiling Workload and Capacity Levels
- 7) Designing Performance Tests
- 8) Understanding Where the Traffic Goes
- 9) Performance Test Tools
- 10) How Cloud Performance Tools Work
- 11) How Cloud-based Performance Tools Work
- 12) Steps in Designing a Cloud Performance Test

##### Module 5 - Testing Cloud Reliability and Availability

- 1) What Customers Expect
- 2) The Role of Testing
- 3) The Role of Service Level Agreements (SLAs)
- 4) Key Point About SLAs
- 5) What This Means
- 6) How to Test and Monitor Reliability and Availability
- 7) How to Measure Reliability and Availability
- 8) You Must Decide What is Important
- 9) Traditional Monitoring
- 10) The Challenge: Geo Dispersed Cloud Applications
- 11) Possible Solutions
- 12) Unified Monitoring
- 13) Example Dashboard
- 14) SLA Report

##### Module 6 - Transitioning to the Cloud

- 1) What to Consider When Transitioning Applications to the Cloud
- 2) Understanding the Business Needs and Value
- 3) Understand the Risks
- 4) The Risk Watch List
- 5) Example: Testing Risk and Return
- 6) Example: Risk Mitigation

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#### What Modules are covered in this E-Course

- 1) Module 1 - Functional Testing of Cloud Applications
- 2) Module 2 - The Role of Test Automation
- 3) Module 3 - Testing Cloud Security
- 4) Module 4 - Testing Cloud Performance
- 5) Module 5 - Testing Cloud Reliability and Availability
- 6) Module 6 - Transitioning to the Cloud