ISTQB® Certified Tester Advanced Level – Test Automation Engineer (CTAL-TAE)

Designing, Developing & Optimizing Test Automation Solutions

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1. Course Information

The **ISTQB® Certified Tester Advanced Level – Test Automation Engineer (CTAL-TAE)** certification is designed for professionals who want to specialize in **designing, implementing, maintaining, and improving test automation solutions**.

This advanced-level course focuses on the correlation between test automation and key domain areas such as **test management, configuration management, defect management, software development processes, and quality assurance**. Participants will gain practical understanding of automation architectures, tool selection, automation frameworks, deployment strategies, and continuous improvement practices.

The course prepares participants for the **CTAL-TAE examination** and equips them with the capability to lead and contribute effectively to enterprise-level automation initiatives.

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2. Who Should Attend This Course

This course is ideal for:

- Test Automation Engineers
- Technical Test Analysts
- Senior Testers and QA Engineers
- Software Developers involved in automation
- DevOps and CI/CD practitioners
- Test Managers and QA Leads
- Professionals transitioning from manual to automation testing

It is suitable for those who wish to design automation frameworks, implement scalable automation strategies, and drive automation transformation initiatives.

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3. Topics Coverage (3-Day Course)

Chapter 1: Introduction and Objectives for Test Automation

- Purpose of test automation
- Success factors in test automation

Chapter 2: Preparing for Test Automation

- System Under Test (SUT) factors influencing automation
- Tool evaluation and selection

- Designing for testability and automation

Chapter 3: The Generic Test Automation Architecture (gTAA)

- Introduction to gTAA
- Test Automation Architecture (TAA) design
- Test Automation Solution (TAS) development

Chapter 4: Deployment Risks and Contingencies

- Selection of test automation approach
- Planning deployment and rollout
- Risk assessment and mitigation strategies
- Test automation maintenance

Chapter 5: Test Automation Reporting and Metrics

- Selection of TAS metrics
- Implementation of measurement
- Logging of TAS and SUT
- Automation reporting

Chapter 6: Transitioning Manual Testing to an Automated Environment

- Criteria for automation
- Implementing automation within regression testing
- Automation for new feature testing
- Automation for confirmation testing

Chapter 7: Verifying the Test Automation Solution (TAS)

- Verifying automated test environment components
- Verifying the automated test suite

Chapter 8: Continuous Improvement

- Options for improving test automation
- Planning automation improvement initiatives

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4. By the End of This Course, Participants Will Be Able To:

Upon successful completion, participants will be able to:

- Incorporate automated testing within software development and testing processes
- Assess and select appropriate tools and technologies for automation initiatives

- Design and develop enhanced or new automation solutions aligned with business requirements
- Define and implement a Test Automation Architecture (TAA)
- Transition from manual testing to automated testing systematically
- Generate automated test reports and maintain automation systems
- Identify risks associated with automation projects and apply mitigation strategies
- Define automation metrics and measure effectiveness
- Verify and validate automation frameworks and solutions
- Plan continuous improvement for long-term automation sustainability

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5. Course Duration

- **Duration:** 3 Days
- **Total Contact Hours:** 21 Hours
- **Mode:** Online / Face-to-Face (F2F)

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6. Exam Information (ISTQB® CTAL-TAE)

- **Exam Duration:** 120 minutes
- **Number of Questions:** 45 (Multiple Choice)
- **Pass Mark:** 65%
- **Certification Validity:** Lifetime
- **Certification Level:** Advanced

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7. Pre-Requisites

Candidates must hold:

- **ISTQB® Certified Tester Foundation Level (CTFL)**

Practical experience in software testing and automation is strongly recommended.

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8. Additional Information

Certification Body

- Malaysian Software Testing Board (MSTB) as an appointed local chapter for International Software Testing Qualifications Board (ISTQB®)

Training Approach

- Instructor-led, interactive sessions
- Practical automation design discussions
- Real-world case studies
- Exam preparation support

Delivery Mode

- Classroom (Face-to-Face)
- Virtual Instructor-Led Training (VILT)
- Corporate / In-house training available

Materials Provided

- Official ISTQB® CTAL-TAE training materials
- Sample exam questions
- Course completion certificate

Why Choose This Course?

✓ Advanced automation specialization
✓ Covers architecture, strategy, metrics, and governance
✓ Supports enterprise-scale automation initiatives
✓ Globally recognized certification
✓ Ideal pathway toward automation leadership roles