ISTQB Advanced Test Automation Engineer + exam

Duration: 3 Days **Course Code: ISTQB-TAE** **Version: 2.0**

Overview:

This 3-day ISTQB Advanced Test Automation Engineer course provides in-depth expertise in test automation aligned with ISTQB guidelines. This training covers key topics such as test automation architecture, tool selection and implementation, and the development of maintainable test automation solutions, following ISTQB best practices. It is designed for testers aiming to achieve the ISTQB Advanced Level certification and deepen their knowledge of automated testing strategies. Upon successful completion of the exam, participants will receive the internationally recognized CTAL-TAE certification.

Target Audience:

The Certified Tester Test Automation Engineering qualification is relevant for those working with both Agile or sequential software development lifecycles. It is intended for anyone involved in software testing and test automation, including roles such as: TestersTest analystsTest automation engineersTest consultantsTest architectsTest managersSoftware developers
This Advanced qualification is also suitable for individuals who want a basic understanding of test automation, such as project managers, quality managers, software development managers, business analysts, IT directors, and management consultants.

Objectives:

- Describe the purpose of test automation
- Understand test automation through the software development lifecycle
- Understand the Configuration of an Infrastructure to Enable Test Automation
- Learn the evaluation process for selecting the right tools and strategies
- Understand design concepts for building modular and scalable test automation solutions
- Select an approach, including a pilot, to plan test automation deployment within the software development lifecycle
- Design and develop (new or modified) test automation solutions that meet technical needs
- Consider scope and approach of test automation and maintenance of testware
- Understand how automated tests integrate within CI/CD pipelines
- Understand how to collect, analyze, and report on test automation data in order to inform stakeholders
- Verify the test automation infrastructure
- Define continuous improvement opportunities for test automation

Prerequisites:

ISTQB-CTFL, ISTQB Certified Tester Foundation Level (CTFL) + examen

Testing and Certification

The Advanced Level Test Automation Engineer exam will is comprised of 40 multiple choice questions, with a pass mark grade of 65% to be completed within 90 minutes. Participants that take the exam not in their spoken language, will receive additional 25% time, and will have 23 minutes more, or a total of 113 min.

- Module: ISTQB® Certified Tester Advanced Level Test Automation Engineering v2
- Number of questions: 40
- Exam length (minutes): 90 (+25% Non-Native Language)
- Total Points: 66
- Passing Score:43
- Exam Languages: English, German

Follow-on-Courses:

- ISTQBA-TA, ISTQB Advanced Test Analyst + examen
- ISTQBA-TM, ISTQB Advanced Test Manager + examen
- ISTQBA-TTA, ISTQB Advanced Technical Test Analyst + examen
- ISTQB-CTFL-AT, ISTQB Agile Tester extension + examen

Content:

- Introduction and Objectives for Test Automation
- Preparing for Test Automation
- Test Automation Architecture
- Implementing Test Automation
- Implementation and Deployment Strategies for Test Automation
- Test Automation Reporting and Metrics
- Verifying the Test Automation Solution
- Continuous Improvement

Chapter 1: Introduction and Objectives for Test Automation

- The tester learns about the benefits of test automation and its limitations.
- Test automation within different software development lifecycle models is covered.
- The tester learns how a system under test (SUT) architecture impacts the suitability of test tools.

Chapter 2: Preparing for Test Automation

- Design for SUT testability through observability, controllability, and a clearly defined architecture, are covered.
- A tester learns about test automation across different environments.
- Factors required to assess an appropriate test automation solution are covered.
- A tester will learn about the technical considerations needed to develop recommendations on test automation.

Chapter 3: Test Automation Architecture

- Test automation architecture and its components leading to a test automation solution are covered.
- A tester will learn about layers and their application in a test automation framework.
- Multiple approaches to using test automation tools will be covered.
- A tester will learn how design principles and design patterns can be applied to test automation.

Chapter 4: Implementing Test Automation

- How to effectively plan and deploy a test automation pilot project will be covered.
- A tester will learn about deployment risks and mitigate strategies.
- Factors that improve the maintainability of test automation code will be covered.

Chapter 5: Implementation and Deployment Strategies for Test Automation

- A tester will learn about CI/CD pipelines and automated test execution across test levels.
- Configuration management for components of test automation will be covered.
- A tester will learn about dependencies applied to API and contract testing.

Chapter 6: Test Automation Reporting and Metrics

- A tester will learn where data can be collected from a SUT and test automation for analysis and reporting.
- Data analysis from SUT reports and test automation to uncover causes of failures will be covered.
- The use of test reports and dashboards to inform stakeholders will be covered.

Chapter 7: Verification of Test Automation Solution

- The tester will learn how to examine and verify the correct operation of test automation components and environment.
- Ensuring that test scripts and test suites execute correctly will be covered.
- A tester will understand when to perform root cause analysis.
- Techniques to analyze test automation code for quality will be covered.

Chapter 8: Continuous Improvement

- Additional areas of data analysis for test case improvement will be covered.
- A tester will learn how to improve and upgrade a test automation solution and its components.
- Identifying ways to consolidate and streamline test automation will be covered.
- A tester will learn how test automation tools can assist with test support and

Further Information:

For More information, or to book your course, please call us on 0800/84.009

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www.globalknowledge.com/en-be/