Advanced Tester Certification—Test Automation Engineer

- Develop a plan to integrate automated testing into the testing process.
- Evaluate tools and technology for automation customized for your projects.
- Create an approach and methodology for building a test automation architecture (TAA).
- Design and develop test automation solutions that meet the business needs.
- Learn approaches to enable the transition of testing from a manual to an automated approach.
- Discover how to create automated test reporting and metrics
- Understand how to manage and optimize testing assets to facilitate maintainability

This course provides participants with the knowledge and skills necessary to implement automation for software projects. The course focuses on the concepts, methods, tools, and processes for automating dynamic functional tests and the relationship of those tests to test management, configuration management, defect management, software development and quality assurance processes.

Methods described are generally applicable across a variety of software lifecycle approaches (e.g., agile, sequential, incremental, iterative), types of software systems (e.g., embedded, distributed, mobile) and test types (functional and non-functional testing).

Real-world practical exercises reinforce learning objectives, strengthen the understanding and application of topics in the course and prepares participants for the exam.

Course Pre-Work
Prior to attending class, please download and review the following document:Advanced Level Test Automation Engineer Syllabus [1].

Who Should Attend
- Professionals in roles such as software developer, tester, test analysts, test engineer, test consultant, test lead or manager and anyone desiring to secure advanced automation skills and/or complete the ISTQB Advanced Test Automation Engineer certification.
- This course may also be appropriate for anyone who wants a deeper understanding of software test automation, such as project managers, quality managers, software development managers, business analysts, IT directors, and management consultants.
- This certification is aimed at professionals who are working within a tool supported software testing environment. It is also for professionals who are planning to start working within a tool supported software testing environment in the future, or are working within companies that plan to do so.

ISTQB® Certification & Exam
The International Software Testing Qualifications Board (ISTQB) is the world's most widely-recognized certification of software testing skills and knowledge. Founded in 2002, the ISTQB is is a not-for-profit association that has issued more than 750,000 certifications in 129 countries around the globe. In order to be eligible to take any of the Certified Tester—Advanced Level (CTAL) exams, potential examinees must submit proof of Certified Tester—Foundation Level (CTFL) certification.

For private and team training, the ISTQB Certified Tester—Advanced Level (CTAL) exam fee can be included in the course price upon request.

To learn more about Advanced Tester Certification, or to schedule a personal certification planning consultation with one of our Training Advocates, contact our Client Support team[2].

Course Outline

Introduction and Objectives for Test Automation
1.1 Purpose of Test Automation
1.2 Success Factors in Test Automation

Preparing for Test Automation
2.1 SUT Factors Influencing Test Automation
2.2 Tool Evaluation and Selection
2.3 Design for Testability and Automation

The Generic Test Automation Architecture
3.1 Introduction to gTAA
3.2 TAA Design
3.3 TAS Development

Deployment Risks and Contingencies
4.1 Selection of Test Automation Approach and Planning of Deployment/Rollout
4.2 Risk Assessment and Mitigation Strategies
4.3 Test Automation Maintenance

Test Automation Reporting and Metrics
5.1 Selection of TAS Metrics
5.2 Implementation of Measurement
5.3 Logging of the TAS and the SUT
5.4 Test Automation Reporting

Transitioning Manual Testing to an Automated Environment
6.1 Criteria for Automation
6.2 Identify Steps Needed to Implement Automation within Regression Testing
6.3 Factors to Consider when Implementing Automation within New Feature Testing
6.4 Factors to Consider when Implementing Automation of Confirmation Testing

Verifying the TAS
7.1 Verifying Automated Test Environment Components
7.2 Verifying the Automated Test Suite

Continuous Improvement
8.1 Options for Improving Test Automation
8.2 Planning the Implementation of Test Automation Improvement