

Advanced Level Test Automation Engineer Learning Objectives

Certified Advanced Test Automation Engineers should be able to demonstrate their skills in the following areas:

- ▣ Explain the objectives, advantages, disadvantages, and limitations of test automation.
- ▣ Identify technical success factors of a test automation project.
- ▣ Analyze a system under test to determine the appropriate automation solution.
- ▣ Analyze test automation tools for a given project and report technical findings and recommendations.
- ▣ Understand "design for testability" and "design for test automation" methods applicable to the SUT.
- ▣ Explain the structure of the Generic Test Automation Architecture.
- ▣ Analyze factors of implementation, use, and maintenance requirements for a given Test Automation Solution.
- ▣ Explain the factors to be considered when identifying reusability of components.
- ▣ Apply guidelines that support effective test tool pilot and deployment activities.
- ▣ Analyze deployment risks and identify technical issues that could lead to failure of the test automation project, and plan mitigation strategies.
- ▣ Understand which factors support and affect maintainability.
- ▣ Classify metrics that can be used to monitor the test automation strategy and effectiveness.
- ▣ Explain how a test execution report is constructed and published.
- ▣ Apply criteria for determining the suitability of tests for automation.
- ▣ Understand the factors in transitioning from manual to automation testing.
- ▣ Explain the factors to consider in implementing automated regression testing, new feature testing, and confirmation testing.
- ▣ Verify the correctness of an automated test environment including test tool setup.
- ▣ Verify the correct behaviour for a given automated test script and/or test suite.
- ▣ Analyze the technical aspects of a deployed test automation solution and provide recommendations for improvement.