Advanced Level Test Automation Engineer

The Advanced Level Test Automation Engineer qualification is aimed at people who have already achieved an advanced point in their careers in software testing and wish to develop further their expertise in automation testing. The modules offered at the Advanced Level cover a wide range of testing topics.

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.