

### Course Objectives

To provide an understanding of test analysis, design and implementation that goes beyond the ISTQB Foundation level. It provides a portfolio of methods for designing tests for a variety software types within any type of software application. Emphasis will be made on domain testing. Spreadsheets, templates and utilities will be provided to help students to devise tests that are both effective and efficient, giving best value for the testing being done in the time that is given.

### Who Will Benefit

This 3-day course is appropriate for testers, developers, business analysts, quality assurance, domain testers, users and anyone wishing to gain the ISTQB Advanced Level Test Analyst Qualification.

### Prerequisites

Delegates wishing to take the ISTQB Advanced Test Analyst Certificate must hold the ISTQB/ISEB Foundation certificate and have completed our Core Module <sup>1</sup>. If you wish to sit the course without taking the exam, there are no prerequisites.

### Skills Gained

- Ability to evaluate requirements to determine domain validity
- Identify and choose appropriate test design techniques for different applications
- Understand the differences between test conditions, test cases, test procedures and test scripts and identify when to produce them or not.
- Produce good quality test design specifications using the most effective test design techniques
- Apply suitable techniques to test quality characteristics such as performance, reliability, accessibility and usability.

### Course Content

#### Test Techniques

##### Specification Based

This section will explain and demonstrate how to use and apply the following test design techniques:

- Equivalence Partitioning
- Boundary Value Analysis
- Decision Tables

<sup>1</sup> The ISTQB Advanced Level qualification is divided into three streams: Test Manager, Test Analyst and Technical Test Analyst. The course material has taken out the concepts that relate to all three streams into a separate 2-day "Core" module. The Core module must be completed by anyone wanting to attain the ISTQB Advanced Level Test Analyst Certificate.

- State Transition Testing
- Classification Tree Method
- Pairwise Testing and
- Use Cases

#### Defect and Experienced Based

This session describes the principles and reasons for defect based techniques and differentiates their use from specification based and structure-based techniques. This section also explains using examples the importance of defect taxonomies and their uses.

The following defect and experienced-based techniques will be described and used to generate tests:

- Error Guessing
- Checklist-based
- Exploratory Testing
- Attacks

Candidates will analyse various systems in order to determine which specification-based and defect-based techniques best fit the application being tested.

#### Test of Software Characteristics

Testing the system's functionality is an important aspect for every tester, focusing on what the system does. Another vital area for every tester is to test the software's characteristics – how well it behaves.

Analysis of suitable techniques is provided to test the following quality characteristics for the test analyst:

- Accuracy
- Suitability
- Interoperability
- Functional Security
- Usability and
- Accessibility

Other characteristics are explained and the reasons why they need technical testers to design and execute them:

- Technical Security
- Reliability
- Efficiency
- Performance, load, stress & scalability testing
- Maintainability
- Portability

### Exam

This course will provide the delegate with the necessary knowledge and skills to sit the ISTQB Advanced Test Analyst Certificate multiple choice exam. Delegates will be given the opportunity to sit the examination at the end of the course.