ISTQB Certified Tester Model-Based Testing (CT-MBT) Course

Course Duration: 40 Hrs. **Course Code: CT-MBT**

Course Overview

The **ISTQB Certified Tester Model-Based Testing (CT-MBT)** course is designed for testing professionals who want to apply model-based approaches to improve test design, coverage, and efficiency. This course introduces the principles of Model-Based Testing (MBT), where test cases are derived from models representing the expected behavior of a system. Participants will learn how MBT supports early defect detection, automation, and systematic testing while preparing for the ISTQB CT-MBT certification exam.

What You'll Learn?

By completing this course, you will be able to:

- Understand the fundamentals and benefits of Model-Based Testing
- Identify suitable models for different testing contexts
- Create and use test models for functional testing
- Derive test cases systematically from models
- Apply MBT in agile, iterative, and traditional environments
- Understand the relationship between MBT and test automation
- Prepare effectively for the ISTQB CT-MBT certification

Target Audience

This course is ideal for:

- Test Analysts and Technical Testers
- Test Automation Engineers

- QA Engineers and Test Consultants
- Software Developers involved in testing
- Testing professionals seeking specialization in MBT

Pre-Requisites

Participants should have:

- ISTQB Certified Tester Foundation Level (CTFL) certification
- Practical experience in software testing
- Basic knowledge of test design techniques
- Familiarity with modeling concepts is helpful but not mandatory

Course Content

Module 1: Introduction to Model-Based Testing

- Fundamentals and objectives of MBT
- Benefits and challenges of MBT
- MBT within the testing process

Module 2: MBT in the Software Development Lifecycle

- MBT in agile, iterative, and sequential models
- Roles and responsibilities in MBT
- When and where to apply MBT

Module 3: Test Modeling Techniques

- Behavioral and structural models
- State transition and decision table models
- Data and workflow modeling

Module 4: Test Case Generation from Models

- Coverage criteria for MBT
- Manual and automated test generation
- Managing test suites derived from models

Module 5: MBT Tools and Automation Support

- Overview of MBT tools
- Integration with test automation frameworks
- Maintaining models and tests

Module 6: Practical Application and Best Practices

- Applying MBT in real projects
- Common pitfalls and success factors
- Measuring effectiveness of MBT