

Hands-on course , 3  
day(s)  
Ref : TQB

### Participants

This formation is addressed to professionals of the software test: IT test manager, senior IT developer...

### Pre-requisites

To have taken the ISTQB® Foundation Level training and to be certified ISTQB Foundation level.

### Next sessions

# ISTQB Advanced Level, Technical Test Analyst, Certification

## OBJECTIVES

*This three-day course covers four main areas — risk management, techniques for performing effective and efficient functional testing, approaches to testing the technical non-functional characteristics and attributes of software systems and examination of tools and basic automation concepts.*

### 1) The Technical Test Analyst's Tasks in Risk-Based Testing

#### 2) Structure-Based Testing

#### 3) Analytical Techniques

#### 4) Quality Characteristics for Technical Testing

### 5) Reviews

### 6) Test Tools and Automation

### 7) Certification

## Certification

*This course is followed by official ISTQB certification exam.*

## 1) The Technical Test Analyst's Tasks in Risk-Based Testing

- General introduction of risk analysis and testing.
- Risk Identification.
- Risk Assessment.
- Risk Mitigation.

### Exercise

*Review question, exam preparation.*

## 2) Structure-Based Testing

- General introduction of structure-based testing.
- Condition Testing.
- Decision Condition Testing.
- Modified Condition/Decision Coverage (MC/DC) Testing.
- Multiple Condition Testing.
- Path Testing.
- API Testing.
- Selecting a Structure-Based Technique.

### Exercise

*Review question, exam preparation.*

## 3) Analytical Techniques

- General introduction of analytical techniques.
- Static Analysis.
- Control Flow Analysis. Data Flow Analysis.
- Using Static Analysis for Improving Maintainability. Call Graphs.
- Dynamic Analysis.
- Overview. Detecting Memory Leaks.
- Detecting Wild Pointers. Analysis of Performance.

### Exercise

*Review question, exam preparation.*

## 4) Quality Characteristics for Technical Testing

- General introduction.
- General Planning Issues.
- Security Testing.
- Reliability Testing.
- Performance Testing.
- Resource Utilization.
- Maintainability Testing.
- Portability Testing.

### Exercise

*Review question, exam preparation.*

## 5) Reviews

- General introduction of review.
- Using Checklists in Reviews.

- Architectural Reviews.
- Code Reviews.

**Exercise**

*Review question, exam preparation.*

## 6) Test Tools and Automation

- Integration and Information Interchange Between Tools.
- Defining the Test Automation Project.
- Selecting the Automation Approach.
- Modeling Business Processes for Automation.
- Specific Test Tools.
- Fault Seeding/Fault Injection Tools.
- Performance Testing Tools. Tools for Web-Based Testing.
- Tools to Support Model-Based Testing. Component Testing and Build Tools.

**Exercise**

*Review question, exam preparation.*

## 7) Certification

- Revision on the main themes approached in formation.
- Practice test to involve itself.
- Installation of the examination: 2 hours, the last day on 3PM, by the GASQ selected by the ISTQB.