

CUSTOMIZED COURSE OUTLINE
(ISTQB- CERTIFIED TESTER FOUNDATION LEVEL COURSE &
USER ACCEPTANCE TESTING COURSE
(With Exam Preparation and Practical Exercises)
Duration: 40 hrs (5 Days * 8 hrs Per day)

Table of Contents

1. Fundamentals of Testing

- 1.1. What is Testing?
 - 1.1.1. Test Objectives
 - 1.1.2. Testing and Debugging
- 1.2. Why is Testing Necessary?
 - 1.2.1. Testing's Contributions to Success
 - 1.2.2. Testing and Quality Assurance (QA)
 - 1.2.3. Errors, Defects, Failures, and Root Causes
- 1.3. Testing Principles
- 1.4. Test Activities, Testware and Test Roles
 - 1.4.1. Test Activities and Tasks
 - 1.4.2. Test Process in Context
 - 1.4.3. Testware
 - 1.4.4. Traceability between the Test Basis and Testware
 - 1.4.5. Roles in Testing
- 1.5. Essential Skills and Good Practices in Testing
 - 1.5.1. Generic Skills Required for Testing
 - 1.5.2. Whole Team Approach
 - 1.5.3. Independence of Testing

2. Testing Throughout the Software Development Lifecycle

- 2.1. Testing in the Context of a Software Development Lifecycle
 - 2.1.1. Impact of the Software Development Lifecycle on Testing
 - 2.1.2. Software Development Lifecycle and Good Testing Practices
 - 2.1.3. Testing as a Driver for Software Development
 - 2.1.4. DevOps and Testing
 - 2.1.5. Shift-Left Approach
 - 2.1.6. Retrospectives and Process Improvement
- 2.2. Test Levels and Test Types
 - 2.2.1. Test Levels
 - 2.2.2. Test Types
 - 2.2.3. Confirmation Testing and Regression Testing
- 2.3. Maintenance Testing

3. Static Testing

3.1. Static Testing Basics

- 3.1.1. Work Products Examinable by Static Testing
- 3.1.2. Value of Static Testing
- 3.1.3. Differences between Static Testing and Dynamic Testing

3.2. Feedback and Review Process

- 3.2.1. Benefits of Early and Frequent Stakeholder Feedback
- 3.2.2. Review Process Activities
- 3.2.3. Roles and Responsibilities in Reviews
- 3.2.4. Review Types
- 3.2.5. Success Factors for Reviews

4. Test Analysis and Design

4.1. Test Techniques Overview

4.2. Black-Box Test Techniques

- 4.2.1. Equivalence Partitioning
- 4.2.2. Boundary Value Analysis
- 4.2.3. Decision Table Testing
- 4.2.4. State Transition Testing

4.3. White-Box Test Techniques

- 4.3.1. Statement Testing and Statement Coverage
- 4.3.2. Branch Testing and Branch Coverage
- 4.3.3. The Value of White-box Testing

4.4. Experience-based Test Techniques

- 4.4.1. Error Guessing
- 4.4.2. Exploratory Testing
- 4.4.3. Checklist-Based Testing

4.5. Collaboration-based Test Approaches

- 4.5.1. Collaborative User Story Writing
- 4.5.2. Acceptance Criteria
- 4.5.3. Acceptance Test-driven Development (ATDD)

5. Managing the Test Activities

5.1. Test Planning

- 5.1.1. Purpose and Content of a Test Plan
- 5.1.2. Tester's Contribution to Iteration and Release Planning
- 5.1.3. Entry Criteria and Exit Criteria
- 5.1.4. Estimation Techniques
- 5.1.5. Test Case Prioritization
- 5.1.6. Test Pyramid
- 5.1.7. Testing Quadrants

5.2. Risk Management

5.2.1. Risk Definition and Risk Attributes

5.2.2. Project Risks and Product Risks

5.2.3. Product Risk Analysis

5.2.4. Product Risk Control

5.3. Test Monitoring, Test Control and Test Completion

5.3.1. Metrics used in Testing

5.3.2. Purpose, Content and Audience for Test Reports

5.3.3. Communicating the Status of Testing

5.4. Configuration Management

5.5. Defect Management

6. Test Tools

6.1. Tool Support for Testing

6.2. Benefits and Risks of Test Automation

7. Introduction and Foundations of User Acceptance Testing

7.1. Fundamental Relationships

7.1.1. Business Goals, Business Needs and Requirements

7.1.2. Requirements / User Stories, Acceptance Criteria and Acceptance Tests

7.1.3. The Importance of the Quality of the Requirements

7.2. Business Analysis and Acceptance Testing

7.2.1. Relationship between Business Analysis and Testing Activities

7.2.2. Collaboration between Business Analysts and Testers

7.2.3. How Acceptance Testing Can Drive the Development Process: ATDD and BDD

8. Acceptance Criteria, Acceptance Tests and Experience-Based Practices

8.1. Writing Acceptance Criteria

8.2. Designing Acceptance Tests

8.2.1. Test Techniques for Acceptance Testing

8.2.2. Using the Gherkin Language to Write Test Cases

8.3. Experience-based Approaches for Acceptance Testing

8.3.1. Exploratory Testing

8.3.2. Beta Testing

9. Business Process and Business Rules Modelling

9.1. Modelling Business Processes and Rules

9.2. Deriving Acceptance Tests from Business Process/Rule Models

9.3. Business Process Modelling for Acceptance Testing

9.3.1. Good Practices for Business Process Modelling for Acceptance Testing

9.3.2. Using Business Process Models for ATDD

10. Acceptance Testing for Non-Functional Requirements

- 10.1. Non-functional Characteristics and Quality in Use
 - 10.1.1. Non-functional Quality Characteristics and Sub-characteristics
 - 10.1.2. Quality in Use
- 10.2. Usability and User Experience
 - 10.2.1. UX Requirements Analysis
 - 10.2.2. Usability Testing
- 10.3. Performance Efficiency
 - 10.3.1. High-level Performance Acceptance Tests
 - 10.3.2. Acceptance Criteria for Performance Acceptance Tests
- 10.4. Security

11. Collaborative Acceptance Testing

- 11.1. Collaboration
- 11.2. Activities
 - 11.2.1. Defect Analysis
 - 11.2.2. Reporting
 - 11.2.3. QA Activities for Acceptance Testing
- 11.3. Tool Support

12. More into Acceptance Test Plans and Templates

- 12.1. Designing an Acceptance Test Plan
- 12.2. Prerequisites for Conducting UAT
- 12.3. Expanding the Acceptance Criteria
- 12.4. Checklist of Common Problems to Test
- 12.5. Equivalence Classes and Boundary Values
- 12.6. GUI Features that Always Need to be Tested
- 12.7. Constructing Use Cases: One- and Two-column Use Case Formats
- 12.8. User Acceptance Test Plan, Test Scenarios, Test Report Templates for Reference
- 12.9. Practical Exercises

13. Test Cases in Detail

- 13.1. Identification of Test Scenarios and Test Cases
- 13.2. Differentiating Test Cases and Test Data
- 13.3. Positive and Negative Test Cases
- 13.4. Capturing Results and Checking Correctness
- 13.5. Documentation, Training
- 13.6. User's Defect Tracking and Metrics
- 13.7. Practical Exercises