

Mastering Tricentis Tosca Test Automation

Duration: 5 days / 40 hours

Prerequisites: Knowledge of Test Automation

Day 1 – Foundations of Tosca and Installation

Topics Covered:

- Introduction to Tosca & Model-Based Test Automation
- Tosca Architecture and Components
- Installing and Launching Tosca Commander
- Creating and Managing Workspaces
- Tosca Project Structure (Modules, TestCases, ExecutionLists)
- Scanning Applications using Tosca XScan
- Standard vs Business Modules
- Creating Basic Test Cases
- Understanding and Using ActionModes

Labs:

- Install Tosca Commander and configure a new workspace
 - Scan desktop/web applications using XScan
 - Build and execute a basic test case
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Day 2 – TestCase Design & Reusability

Topics Covered:

- TestCase Design (TCD) Concepts
- Creating Templates, Attributes, Classes
- Connecting TestSheets with TestCases
- Tosca Data Service (TDS) Overview
- Managing and Linking External Test Data
- Business Components and Reusability
- Using Test Configuration Parameters (TCPs)
- Tosca Buffers and Dynamic Data Handling
- Test Step Repetition, Loops, and Conditional Logic

Labs:

- Design data-driven test cases using TCD and TDS
 - Reuse modules and create reusable test steps
 - Implement loops and buffers in execution logic
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Day 3 – Advanced Automation Logic & API Testing

Topics Covered:

- Tosca API Testing Fundamentals
- Creating API TestCases and Parsing Responses
- Verifying JSON/XML Content
- Implementing Conditional Logic (If, Else, While)
- Error Handling and Exception Management
- Test Events and Post-Execution Cleanup
- Exploratory Testing Features
- Creating Variants for Advanced Coverage
- Tosca Best Practices for Design and Debugging

Labs:

- Build and validate API test cases
- Apply conditions and error handling
- Design test variants for different data conditions

Day 4 – Tosca BI, Database Testing, and CI/CD Integration

Topics Covered:

- Tosca BI Overview and Use Cases
- Validating Data Pipelines and ETL Jobs
- Query-Based Validation in Tosca BI
- Connecting to and Validating SQL Databases
- Integrating Tosca with Jenkins
- Tosca Command Line Execution (CLI)
- Risk-Based Testing and Execution Optimization
- Using Tosca Utilities and Managing Reports

Labs:

- Create Tosca BI test cases for data warehouse validation
- Perform database checks using SQL validation modules
- Schedule test cases via Jenkins or CLI

Day 5 – Real-Time Project, Best Practices, and Wrap-Up

Topics Covered:

- Real-Time End-to-End Automation Scenario Walkthrough
- Capstone Project: Scanning, TCD, Reusability, Execution
- Debugging and Optimizing Test Flows
- Applying Design Patterns in Tosca
- Maintenance Strategies for Large Test Suites
- Final Q&A, Use Case Discussions, and Feedback

Labs:

- Build a complete end-to-end automated test suite

- Present project outcomes and troubleshoot issues
- Discuss challenges and best practices in real projects