

KOENIG SOLUTIONS • COURSE OUTLINE

ISTQB Certified Tester Foundation Level 4.0

Learn the fundamentals of software testing, from test design techniques to test management, static testing and test tools.

3 Days

DURATION

6

MODULES

59

TOPICS

COURSE OVERVIEW

This course covers the fundamentals of testing, including its objectives, principles, activities and roles, and examines how testing fits within the software development lifecycle through different test levels and types. It then addresses static testing, covering reviews and feedback processes, before moving into test analysis and design, including black-box, white-box, experience-based and collaboration-based techniques. The course also covers managing test activities such as test planning, risk management, monitoring and defect management, and concludes with an introduction to test tools and the benefits and risks of test automation.

WHO THIS COURSE IS FOR

Test Analysts

Test Engineers

Test Managers

QA Engineers

Software Testers

Business Analysts

PREREQUISITES

- Basic Understanding of Software Testing

LEARNING OBJECTIVES

- Explain the objectives, principles and activities of testing
- Describe the role of testing within the software development lifecycle
- Identify different test levels and types, including regression testing
- Apply static testing techniques such as reviews and feedback processes
- Apply black-box, white-box and experience-based test design techniques
- Plan test activities, including estimation and prioritisation
- Analyse project and product risks to guide testing
- Describe the benefits and risks of test automation tools

6 Modules, 59 Topics

DAY 1 Foundations and Software Lifecycle

01

Fundamentals of Testing

WHAT IS TESTING?

Test Objectives · Difference between Testing and Debugging

WHY IS TESTING NECESSARY?

Contribution of Testing to Success · Role in Quality Assurance · Errors, Defects, Failures, and Root Causes
Testing Principles

TEST ACTIVITIES, TESTWARE AND ROLES

Test Activities and Process · Testware and Traceability · Roles in Testing

ESSENTIAL SKILLS AND GOOD PRACTICES

Generic Skills Required for Testing · Whole Team Approach · Independence in Testing

02

Testing Throughout the Software Development Lifecycle

TESTING IN THE SDLC CONTEXT

Software Development Lifecycle Models · DevOps and Testing · Shift Left Approach · Retrospectives and Process Improvement

TEST LEVELS AND TYPES

Unit, Integration, System, Acceptance Testing · Functional vs Non-functional Testing · Confirmation Testing and Regression Testing
Maintenance Testing

03

Static Testing

STATIC TESTING BASICS

Types of Work Products · Value of Static Testing · Static vs Dynamic Testing

FEEDBACK AND REVIEW PROCESS

Stakeholder Feedback · Review Process Activities · Roles and Responsibilities in Reviews · Review Types · Success Factors for Reviews

04

Test Analysis and Design

TEST TECHNIQUES OVERVIEW

Classification of Test Techniques

BLACK-BOX TEST TECHNIQUES

Equivalence Partitioning · Boundary Value Analysis ·
Decision Table Testing · State Transition Testing

WHITE-BOX TEST TECHNIQUES

Statement Testing and Coverage · Branch Testing and
Coverage · Value of White-box Testing

EXPERIENCE-BASED TEST TECHNIQUES

Error Guessing · Exploratory Testing · Checklist-
Based Testing

COLLABORATION-BASED TEST APPROACHES

Collaborative User Story Writing · Acceptance Criteria ·
Acceptance Test-Driven Development (ATDD)

05

Managing the Test Activities

TEST PLANNING

- Purpose and Content of a Test Plan
- Tester's Role in Iteration and Release Planning
- Entry and Exit Criteria
- Estimation Techniques
- Test Case Prioritization
- Test Pyramid
- Testing Quadrants

RISK MANAGEMENT

- Risk Attributes
- Project and Product Risks
- Product Risk Analysis and Control

TEST MONITORING, CONTROL AND COMPLETION

- Metrics in Testing
- **Test Reports:** Purpose, Content, Audience
- Communicating Test Status
- Configuration Management
- Defect Management

06

Test Tools

TOPICS

Tool Support for Testing · Benefits and Risks of Test Automation

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

ABOUT KOENIG

Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

FLEXIBLE DELIVERY

Learn the Way That Suits You

Classroom Training

Live Online Classes (ILO)

Fly-Me-A-Trainer (FMAT)

Flexi (Self-Paced)

1-on-1 Training

Ready to Get Started?

Talk to a learning advisor about schedules, group training and customised delivery.

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