### سرفصل آموزشی پک متخصص تست نرم افزار

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# سرفصلهای دوره آموزشی ISTQB Foundation V4.0

#### **Fundamentals of Testing**

- What is Testing?
- Why is Testing Necessary?
- Testing Principles
- Test Activities, Testware and Test Roles
- Essential Skills and Good Practices in Testing

#### **Testing Throughout the Software Development Lifecycle**

- Testing in the Context of a Software Development Lifecycle (SDLC)
- Test Levels and Test Types
- Maintenance Testing

#### **Static Testing**

- Static Testing Basics
- Feedback and Review Process



#### **Test Analysis & Design**

- Test Techniques Overview
- Black-Box Test Techniques
- White-Box Test Techniques
- Experience-based Test Techniques
- Collaboration-based Test Approaches

#### **Test Management**

- Test Planning
- Risk Management
- Test Monitoring, Test Control and Test Completion
- Configuration Management
- Defect Management

#### Test Tools

- Tool Support for Testing
- Benefits and Risks of Test Automation

#### Conclusion

Course Content Overview



# سرفصلهای دوره آموزشی Software

# performance Testing

#### Part 1: ISTQB Standard Fundamentals

**Basic Concepts** 

- Principles of Performance Testing
- Types of Performance Testing
- Testing Types in Performance Testing
- The Concept of Load Generation
- Common Failures in Performance Testing and Their Causes

Performance Measurement Fundamentals

- Typical Metrics Collected in Performance Testing
- Aggregating Results from Performance Testing
- Key Sources of Performance Metrics
- Typical Results of a Performance Test



Performance Testing in the Software Lifecycle

- Principal Performance Testing Activities
- Performance Risks for Different Architectures
- Performance Risks across the Software Development Lifecycle
- Performance Testing Activities

Performance Testing Tasks

#### Planning

- Deriving Performance Test Objectives
- The Performance Test Plan
- Communicating about Performance Testing

Analysis, Design and Implementation

- Typical Communication Protocols
- Transactions
- Identifying Operational Profiles
- Creating Load Profiles
- Analyzing Throughput and Concurrency
- Basic Structure of a Performance Test Script
- Implementing Performance Test Scripts
- Preparing for Performance Test Execution

Execution

• Analyzing Results and Reporting



#### Tools

- Tool Support
- Tool Suitability

#### Part 2: Apache JMeter

Web Service

- What is web Service?
- Rest vs SOAP

HTTP Methods and Errors

- Review All Methods in Http
- Review all Error codes in Http

**JMeter Introduction** 

• JMeter Installation

Test Plan

- Work with Test plan
- Work with Thread Group
- Use Templates
- Create your Own Templates



#### **Design Scenarios**

- Create API
- Capture UI elements
- What is HTTP manager/Cookie Manager/Cache manager) elements
- Design File Upload
- Design File Download
- Design Email (Send and Read)
- Design FTP
- Design JDBC

#### Parameterization

#### Correlation

- Defined and Random Variables
- CSV in Jmeter
- Work with extractor

#### Assertions

- Response Assertion
- Assertion Listener result
- Duration assertion
- Size Assertion
- HTML Assertion
- XML Assertion
- JSON assertion



#### Thread Group configuration

- Concurrency Thread Group
- Arrivals Thread Group
- Ultimate Thread Group

#### Controllers

• Post and Preprocessor

#### Listeners

- View Results Tree
- View Results in Table
- Assertion Results
- Summary Report
- Aggregate Report
- Aggregate Graph
- Graph Results
- Response Time Graph
- Active Threads Over Time
- Bytes Throughput Over Time
- Connect Times Over Time
- Hits per Second
- Response Codes per Second
- Response Latencies Over Time
- Response Times Over Time
- Transactions per Second



Advance Tricks

Execution and reports

Scheduled & Sequential execution



### سرفصلهای دوره آموزشی

# ISTQB

## Advanced Level-Test Analyst

#### **Fundamentals of Testing**

- What is Testing?
- Why is Testing Necessary?
- Testing Principles
- Test Activities, Testware and Test Roles
- Essential Skills and Good Practices in Testing

#### The Test Analyst's Tasks in the Test Process

- Introduction No learning objectives
- Testing in the Software Development Lifecycle
- Test Analysis
- Test Design
- Test Implementation
- Test Execution



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

- Introduction
- Risk Identification
- Risk Assessment
- Risk Mitigation
- Prioritizing the Tests
- Adjusting Testing for Future Test Cycles

#### **Test Techniques**

- Introduction
- Black-Box Test Techniques
- Equivalence Partitioning
- Boundary Value Analysis
- Decision Table Testing
- State Transition Testing
- Classification Tree Technique
- Pairwise Testing
- Use Case Testing
- Combining Techniques
- Experience-Based Test Techniques
- Error Guessing
- Checklist-Based Testing
- Exploratory Testing
- Defect-Based Test Techniques
- Applying the Most Appropriate Technique



#### **Testing Software Quality Characteristics**

- Introduction
- Quality Characteristics for Business Domain Testing
- Functional Correctness Testing
- Functional Appropriateness Testing
- Functional Completeness Testing
- Interoperability Testing
- Usability Evaluation
- Portability Testing

#### Reviews

- Introduction
- Using Checklists in Reviews
- Requirements Reviews
- User Story Reviews
- Tailoring Checklists

#### **Test Tools and Automation**

- Introduction
- Keyword-Driven Testing
- Types of Test Tools
- Test Design Tools
- Test Data Preparation Tools
- Automated Test Execution Tools

