

# Agile Performance Testing LoadRunner, JMeter

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**Duration: 35 Hours**

## Prerequisites

- Knowledge of Basic Software Testing.
- Knowledge Of Java

## Topics

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### 1. Introduction

- What is Performance Testing?
- Need of Performance Testing?
- Methodology used in Performance Testing
- Life cycle of in Performance Testing

### 2. Tool Introduction

- Available Tools in market
  - Neoload
  - Load runner
  - Jmeter
  - Blazemeter
  - RationalRose

- Load Runner

### 3. Load Runner/Performance Center

- Architecture of Load Runner
- Installation
- Licensing

### 4. Scripting

- Vugen Overview
- Overview of HTTP/HTML protocol
- Demo of Sample application on HTTP/HTML & Web services
- Recording a script in HTTP/HTML & web services
- Enriching the Script via Correlation & parameterization
- Advanced Concepts of Data manipulation in Vugen
- Practice 1
- Practice 2
- Overview of RDP/Citix/ODBC/RTE protocols

### 5. Scenario Creation & Execution

- Setting up load runner scenario
  - Ramp up & Ramp down strategy
  - Group strategy
  - Step up ScenarioException Handling
- Load Test / Stress Test/Endurance Test setup
- Execution setup
- Online Monitoring
- User Defined Exception

### 6. Monitoring Profile Setup

- Infrastructure Monitoring Setup
- Setting Counters on Windows and Linux servers

- Memory
- CPU
- Disk
- Network

### 7. Analyzing the Results

- In-depth walkthrough of how to analyze the result
- Understanding of each graph types
- Bottleneck Identification

### 8. Performance Engineering Brief

- Use of Profilers
- Dynatrace & JProfiler Overview
- JDK Free Tools
- Knowledge Repository to refer

### 9. Function testing Key Concepts (.5 days)

- Need for testing
- Vmodel & testing levels.
- Test case creation
- Defect life cycle
- Defect management tools overview
- Black box testing Techniques
  - Equivalence partitioning
  - Boundary value analysis
  - Decision table testing
  - State transition testing
  - Use case testing
- White box testing techniques
  - Statement testing and coverage
  - Decision testing and coverage
  - Other structure based testing
- Exploratory testing
- Risk based testing techniques

### 10. Jmeter (free ware powerful Testing Tool)

- Jmeter overview
- Features of Jmeter
- Installation
- Recording webApplication
- Other protocols supported
- Scripts enrichment
- Prameterization
- Correlation
- Validation checks
- Execution
- Setup of Generators
- Result analysis

- Jmeter plugins
- Defect tracking
- 11. Performance Testing In Agile Way**
  - Agile Software Development
  - Agile Testing Methods
  - Roles & Skills of Tester in Agile Team
  - Tools in Agile Projects
  - Release & Iteration Planning
  - Managing an Agile Performance Testing
- 12. Security Testing Overview**
  - What is Security Testing?
  - HTTP & HTTPS basics
  - Encoding & Decoding
  - Testing Cookies
  - Testing web service security
  - Techniques
  - Injection
    - Broken Auth & Session Management
    - Cross Site Scripting
    - Insecure Direct Object reference
    - Security Misconfiguration
    - Sensitive data exposure
    - Missing Functional Level Access control
    - Cross site request forgery
    - Using Components with Known Vulnerabilities
    - Unvalidated Redirects and Forwards
  - Open source & free security testing tools