

JMETER Performance Testing and Load Runner

Duration: 5 days / 40 hours

Prerequisites: Knowledge of Performance Testing

Chapter 1: Performance Testing Fundamentals

- What Is Performance Testing
- Types of Performance Testing
- Common Performance Problem
- Performance Testing Metrics: Parameters Monitored
- Performance Test Tools
- Introduction to Client & Server architecture
- API Request & API Response
- HTTP Methods
- HTTP Request Headers
- HTTP Response Headers
- Response Codes & Description

CHAPTER 2: INTRODUCTION TO JMETER, JMETER TEST PLAN & JMETER TEST ELEMENTS

- Jmeter to the Rescue
- Advantages of Jmeter
- How does JMeter work?
- Jmeter Installation
- JMeter Test Plan
- What are the Elements in Jmeter

CHAPTER 3: BUILDING A TEST PLAN

- Adding Virtual Users
- Adding ramp-up time
- Adding loop count/thread-life-time
- Adding HTTP requests samplers
- Adding Listeners to view/generate test results
- Analyze the load test results

CHAPTER 4: WORKING WITH JMETER LISTENERS

- Introduction to Listeners & its practical usage
- View Results Tree
- View Results in Table
- Summary Report
- Aggregate Report
- Save Responses to file
- Assertion Results

CHAPTER 5: UNDERSTANDING THE JMETER CONFIG ELEMENTS

- Introduction to Configuration elements
- Practical usage of different types of Config elements
- HTTP header manager
- HTTP cookie manager
- HTTP request defaults
- User Defined Variables
- Counter
- FTP request defaults
- Random variable
- JDBC Connection Configuration

CHAPTER 6: ADDING THE JMETER LOGIC CONTROLLERS

- Introduction to JMeter logic controllers
- Once only controller
- Simple Controller
- Transaction Controller
- Random Controller
- Random Order Controller
- Loop Controller
- Run-time Controller
- Throughput Controller
- Interleave Controller
- Recording Controller
- If Controller
- Module Controller

CHAPTER 7: CONFIGURING THE JMETER PRE-PROCESSORS

- What is a Pre-Processor & the usage in JMeter
- Introduction to JMeter Pre-Processor elements
- HTML link parser
- Sample Timeout
- User Parameters
- JDBC Pre-Processor

CHAPTER 8: CONFIGURING JMETER POST-PROCESSORS

- What is a Post-Processor & the usage in JMeter
- Introduction to JMeter Post-Processor elements
- JSON Extractor
- Result status action handler

CHAPTER 9: DEBUGGING

- Debugging JMeter tests:
- View Results Tree [RegExp Tester]
- View Results Tree [JSON Path Tester]
- View Results Tree [XPath Tester]
- Debug Sampler

CHAPTER 10: Integrated Load Testing and Analysis

- Introduction to LoadRunner Tool
- Installation of LoadRunner Tool
- Usage of LoadRunner's Controller tool
- Usage of LoadRunner's Analysis tool
- Integrate JMeter scripts into LoadRunner Controller.
- Perform integrated analysis using LoadRunner's analysis tools

Chapter 11: Resource Monitoring

- Basic server monitoring
- Setting up Perfmon Server
- Monitoring the server with a JMeter plugin
- Installing the plugins
- Adding monitor listeners to the test plan

Chapter 12: Distributed Testing

- Remote testing with JMeter
- Configuring JMeter slave nodes
- Configuring one slave per machine
- Configuring the master node to be tested against one slave per machine
- Configuring multiple slave nodes on a single box
- Configuring the master node to be tested against multiple slave nodes on a single box
- Executing the test plan