

JMETER-CURRICULUM

COURSE INTRODUCTION

PERFORMANCE TESTING BASICS

- ✓ Introduction to web application performance testing
- ✓ What is Performance testing?
- ✓ Performance testing types
 - Stress testing
 - Load Testing
 - Spike Testing
 - Endurance Testing
 - Volume Testing
- ✓ Identify Performance Parameters
 - Response time
 - Throughput
 - Latency
 - Connect time
 - Memory
 - CPU Utilization



INTRODUCTION TO JMETER, JMETER TESTPLAN & TEST ELEMENTS

- JMeter basics/terminology
- JMeter Download/Installation
- Test Plan
- Thread Group
- Controllers
- Samplers
- Logic Controllers
- Listeners
- Timers
- Assertions
- Configuration Elements



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- Pre-Processor Elements
- Post-Processor Elements
- Execution Order

BUILDING A TEST PLAN

- Adding Virtual Users
- Adding ramp-up time
- Adding HTTP Requests
- Scheduler
- Adding Listener to View/Store Test Results
- Analyze the load test results

WORKING WITH HTTP PROXY SERVER & OTHER RECORDING TOOLS

- How to use JMeter templates
- Recording steps on a website using HTTP Proxy server
- Configuring the Firefox, IE browsers for recording the test script
- Record and Playback on sample site
- Badboy Software & Recording
- Blazemeter chrome plugin and recording

LISTENERS

- Introduction to Listeners
- Different types of listeners
- Aggregate Report
- Aggregate Graph
- View Results Tree
- View Results in Table
- Summary Report
- Graph Results
- Save Responses to file
- Assertion Results

ASSERTIONS

- ✓ What is Assertion
- ✓ Why Assertion



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- ✓ Types of Assertions in JMeter
 - ✓ Duration Assertion
 - ✓ Size Assertion
 - ✓ XML Assertion
 - ✓ HTML Assertion
 - ✓ Response Assertion
- Running the tests and analyzing the Assertion results

TIMERS

- ✓ What is timer?
- ✓ Use of timers in a test plan
- Introduction of various times in JMeter
 - Constant Timer
 - Gaussian Random Timer
 - Uniform Random Timer

LOGIC CONTROLLERS

Random Controller

- Loop Controller
- Recording Controller
- Simple Controller
- Throughput Controller
- Runtime Controller
- IF Controller
- While Controller
- For Each Controller

TESTING WEBSERVICES WITH JMETER

- Introduction to API's
- Test Plan for API's
- RESTful API's performance testing
- SOAP APIs Performing testing

FTP TESTING WITH JMETER

- Building a FTP Test Plan
- FTP – GET (How to test FTP download)
- FTP – POST (How to test FTP upload)
- Run the FTP Test Plan
- Analyze the FTP load tests



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- How to parameterize FTP test plan

TEST DATA PARAMETERIZATION

- ✓ What is Parameterization
- ✓ Why Parameterize
- ✓ Identifying the test data on AUT
- ✓ Using the CSV Data config in JMeter Tests
- ✓ How to read data from CSV file using JMeter

HANDLING THE DYNAMIC SERVER VALUES

- ✓ What is Correlation
- ✓ Why Correlation
- ✓ Regular Expressions
- ✓ Using Regular Expression Extractor in JMeter Tests

USING JMETER IN

GUI mode

- ✓ How to generate Graphical results
- ✓ How to generate metrics for CPU, Memory i.e., Servers Performance Monitoring

NON GUI mode

- ✓ How to view results when run in Non GUI mode
- ✓ How to get & view real time results when run in Non GUI mode
 - Using Summarizer in JMeter properties file
 - Using Console Status Logger plugin
- ✓ How to generate HTML reports from command line execution in Non GUI mode
- ✓ How to generate HTML reports using existing .jtl/.log/.csv JMeter results file

Distributed Load Testing

- How to build a distributed load tests
- How to use Throughput Controller to support distributed load tests

How to use JMeter to run scheduled & sequential execution

- Run JMeter tests for a specified duration
- Run JMeter tests in a sequential manner i.e., thread after thread



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- Run JMeter tests in a sequential/parallel manner with start-up delay between threads

How to use JMeter to set realistic performance test – PACING?

JMETER-OTHER TEST ELEMENTS

- ✓ Understanding JMeter Functions & usage
- ✓ Understanding JMeter Variables & usage
- ✓ HTTP Cache Manager
 - Run the JMeter tests with 'Clear cache each iteration' checked
 - Run the JMeter tests with 'Clear cache each iteration' un-checked
 - Max number of elements in cache
- ✓ HTTP Cookie Manager
 - Run the JMeter tests without HTTP Cookie Manager added & analyze View Results Tree
 - Run the JMeter tests with HTTP Cookie Manager added & analyze View Results Tree when
 - (i). Clear Cookies each iteration is checked
 - (ii) Clear Cookies each iteration is unchecked
- ✓ HTTP Header Manager
- ✓ How to create reusable test scripts & save them as JMeter Templates
- ✓ JMeter Plugins
 - How to install/use JMeter Plug In Manager
- ✓ Pre Processor –
 - How to use HTML Link Parser
 - How to use Sample Timeout
 - How to use User Parameters
- ✓ Post Processor
 - How to use Debug Post Processor in JMeter
 - How to use Regular Expression Extractor in Jmeter
 - How to test File Uploads using JMeter
 - How to test File Downloads using JMeter
 - How to use & test SMTP Sampler in JMeter
 - How to use & test Mail Reader Sampler in JMeter



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CASE STUDY/ASSIGNMENT

- JMeter hands on assignments against different public web application(s)

KEY FEATURES



Instructor-led Sessions



Learn from Experts



Assignments



24 x 7 Support



Real-time Case Studies



Get Certified

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