



Dear Student,

Based upon your enquiry we are pleased to send you the course curriculum for JMeter

Given below is the brief description for the course you are looking for: -

#### **Introduction to Performance Testing**

Key Points to understand performance Tetsing

what is Load Testing

what is Ramp-up period

what is Business Process

What is Thread

What is sampler

Introductions to performance Testing tools

Introductions to performance Requirements

What is performance testing Life Cycle

How to create performance Testing Test Plan

What is performance testing Bench Mark Criteria

How to Identify Bottlenecks

Generating different reports and Analysis

#### **Imeter Introduction**

**Jmeter Introduction** 

How to install JMeter installation

How to configure classpath

How to Launch Jmeter Interface

Overview of Jmeter Features

What is Jmeter Test Elements

How to createTest Plan to test websites

Different settings aplicable in Jmeter

Different Results of Test Plan

Saving and Loading Elements

How to removing and addding Test Elements





#### **How To Use Jmeter for HTTP Proxy Server Testing**

How to Recording steps on a website
Implementing HTTP Proxy server
How to configure the browser for recording the test script
Firefox Mozilla configuration for recording test
Chrome configuration for recording script
How to Configuring IE
Recording and Playback on sample site

## what is Thread Group

Elements of Test Plan discription
Introduction to Thread Group
Explanation of Thread group - control panel
What is single Thread Group test
what is multiple Thread Group test
Thread Group setup
what is tearDown Thread Group
Thread Group and Test Plan interaction
How to create Custom Thread Groups
External plugins for Jmeter configuration
What is Stepping Thread Group
What is Ultimate thread group

#### **Explanation of Samplers**

What is HTTP Request

What is FTP Request

What is JUnit Sampler

What is TCP Sampler

What is OS Process Sampler

What is JDBC Sampler

What is Test Action

What is SOAP/XML-RPC Sampler

What is Webservices Sampler





## **Explanation of Logic Controllers**

What is Once Only Controller

What is Random Controller

What is Random Order Controller

What is Loop Controller

What is Interleave Controller

What is Recording Controller

What is Simple Controller

what is Throughput Controller

How to create Runtime Controller

what is IF Controller

what is While Controller

wjat is Switch Controller

**Explantiom of Module Controller** 

Explantion of Include Controller

Explantion of For Each Controller

**Explantion Transaction Controller** 

#### **Detail Explanation Pre and Post Processors**

What is Pre and Post Processors

What is HTML link Parser

What is HTTP URL rewriting modifier

How to add USer Parameters

Where to use Regular Expression Extractor

What is XPath Extractor

How to manage Result status handler

How to to Debug Post Processor

What is Assertion results listener

How configure HTTP Cookie Manager

#### How to use Timers in Jmeter

What is Constant Timer





What is Gaussian Random Timer

What is Uniform Random Timer

What is Poisson Random Timer

What is Synchronizing Timer

What is Constant Throughput Timer

#### How to use Assertions in Jmeter

**Detail Explanation of Assertions** 

What is the Duration Assertion

What would be the Size of Assertion

What is XML Assertion

What is XML Schema Assertion

What is HTML Assertion

What is Response Assertion

What is XPath Assertion

how to Compare Assertion

#### **How to Configuration Jmeter Test Elements**

Introduction to Config Elements

What is Counter in Jmeter

**Explanation of Random Variable** 

How to create FTP Request Defaults

Setup Login Config Element

What is HTTP Request Defaults

What is Java request Defaults

How to create user defined Variables - UDV

Explanation of CSV Data Set Config

**Explanation of HTTP Authorization Manager** 

What is HTTP Cookie Manager

#### **Explanation of Jmeter Listeners**

Listeners Introduction

What is Aggregate Report

What is Aggregate Graph





How to view Results Tree

How to view Results in Table

What is Summary Report

What is Simple Data Writer

What is Graph Results

How to Save Responses to file

How to Generate summary result

What is Response time graph

What do you mean by Monitor results

Introduction to Spline Visualizer

What is Mailer Visualizer

What is Distribution Graph (Alpha)

**Explanation of Assertion Results** 

How to compare assertion results

#### What is Jmeter Functions

threadNum

what is intSum

What is longSum

What is doubleSum

What is StringFromFile

Understanding javaScript

Introduction to BeanShell

what is machineIP

What is machineName

What is TestPlanName

What is log function

What is Random function

what do you understand by RandomString

what is property function

What is setProperty

What is time function

What is samplerName

What is FileToString





## Custom Functions / User defined Functions

#### **Introduction to Bean Shell Scripting**

Introduction to BeanShell Scripting
How to Set up BeanShell
Introduction to Eclipse IDE
Introduction to BeanShell Scripting Syntax
what is BeanShell Samplers
what is BeanShell Pre-processor
what is BeanShell post-processor
what is BeanShell Assertion
What is BeanShell Timer
What is BeanShell Listener

#### **BSF Scripting introduction in Jmeter**

what is BSF scripting and what its use in Jmeter how to Set up BSF
Understanding BSF Syntax
how to write BSF -- JavaScript
how to write BSF -- Groovy

#### **How to test Database using Jmeter**

Database Testing with JMeter
How to Set up jar files
Creating JDBC connection with Oracle
what is Select Statement
what is Update Statement
what is Insert Statement
what is Delete Statement
what is Create Statement





#### how to use Use parameterization

#### **How to Test Webservices using Jmeter**

Webservices Introduction

What do you understand by WSDL

What is UDDI

What is SOAP Message (Request & Response)

What is Test Plan for Webservice

What do you understand by WebService/SOAP Sampler

Introduction to SOAP UI Tool

Example of Freely exposed Webservice over Internet

How to Set up Xampp and MySQL DB

what is Inhouse Retail Project - Example

#### Real time end to end scripting example

How to test End to End Scenario using Jmeter

## Performance Testing for Non-GUI and Distributed Mode using Jmeter

How to perform Test Execution

how to Execute tests in Non Gui mode

How to Edit a test plan in a text/XML editor

How to evaluate Jmeter test results in Non-gui mode

What is GUI support to view reports

What is Aggregate Report - load jtl file

How to Execute tests in Distributed mode

How to Configure the nodes

How to Start the servers

How to Configuring Jmeter Properties File

Explanation of distributed execution from a GUI client

What is distributed execution from a NON-GUI

## **How to perform Report Analysis and Monitoring Resources**





what are the Statistics available from JMeter
what do you understand by Average, Median, Deviation
Understanding Throughput, 90 Percentile
How to do Server Monitoring using jmeter plugin
How to perform Resource Utilization Monitoring
Perfmon metric collector listener
what is ServerAgent batch file
Blazemeter Plugin
Memory usage & Server metrics such as CPU
Monitoring & analyzing CPU resources
Monitoring memory utilization in Jmeter
How to Drivie JMeter tests using Ant

#### **How to Test Restful Webservices using Jmeter**

What is Restful Webservices
What is SOAP - WSDL, XML SOAP Message
Introduction to REST based API
Understanding HTTP Methods- GET, POST, DELETE, PUT
Understanding MIME TYPES - JSON, XML
Understanding CRUD Operations from Jmeter
How to Send Post Request from Jmeter
How to Send JSON Payload
What is Asserting JSON Response

#### How to perofrm File download and upload using Jmeter

How to Uploading a file on server How to download file from server

## **How to Integrate Jmeter with selenium**

Selenium WebDriver with Junit scripting
Jmeter Integration with selenium

#### Memory usage





#### Explanation to JDBC MYSQL DB Connectivity

#### **Performance Testing Introduction**

Introduction to Performance Testing of Web applications

Technical Jargon -

- -Functional/Regression Testing
- -Load Testing
- -Ramp-up
- -Threads/Users
- -Business Process

**Performance Testing Tools** 

Performance Testing requirements/needs

Performance Test Life Cycle

Performance Test Planning

**Load Modelling** 

Scripting

Bench marking performance criteria

Loading the test

Reports generation and Analysis

Bottlenecks identification

#### **Imeter Introduction**

Introduction to Jmeter
JMeter installation
configuring classpath
Launching Jmeter Interface
Get to know Jmeter Features
Overview of Jmeter Test Elements
Create a basic Test Plan to test websites
Executing tests with different settings
Reading Results of Test Plan
Adding and Removing Elements
Loading and Saving Elements

#### Working with HTTP Proxy server

Recording steps on a website
Using HTTP Proxy server
Configuring the browser for recording the test
script





Configuring Firefox Mozilla
Configuring Chrome
Configuring IE
Record and Playback on sample site

## **Thread Group**

Detailed look at Elements of Test Plan
Thread Group Introduction
Thread group - control panel
Single Thread Group test
Multiple Thread Group test
setUp Thread Group
teardown Thread Group
Test plan and Thread Group interaction
Custom Thread Groups
How to add external plugins for Jmeter
Stepping Thread Group
Ultimate thread group

#### Samplers

HTTP Request
FTP Request
JUnit Sampler
TCP Sampler
OS Process Sampler
JDBC Sampler
Test Action
SOAP/XML-RPC Sampler
Webservices Sampler
Debug Sampler

## **Logic Controllers**

Once Only Controller
Random Controller
Random Order Controller
Loop Controller
Interleave Controller
Recording Controller





Simple Controller
Throughput Controller
Runtime Controller
IF Controller
While Controller
Switch Controller
Module Controller
Include Controller
For Each Controller
Transaction Controller

#### **Pre and Post Processors**

Pre and Post Processors
HTML link Parser
HTTP URL rewriting modifier
User Parameters
Regular Expression Extractor
XPath Extractor
Result status handler
Debug Post Processor
Assertion results listener
HTTP Cookie Manager

#### **Timers**

Constant Timer
Gaussian Random Timer
Uniform Random Timer
Poisson Random Timer
Synchronizing Timer
Constant Throughput Timer

#### **Assertions**

Why Assertions
Duration Assertion
Size Assertion
XML Assertion
XML Schema Assertion
HTML Assertion
Response Assertion





XPath Assertion
Compare Assertion

## **Configuration Elements**

**Config Elements Introduction** 

Counter

Random Variable

FTP Request Defaults

Login Config Element

**HTTP Request Defaults** 

Java request Defaults

User Defined Variables - UDV

**CSV Data Set Config** 

**HTTP Authorization Manager** 

**HTTP Cookie Manager** 

#### Listeners

Introduction to Listeners

**Aggregate Report** 

Aggregate Graph

View Results Tree

View Results in Table

**Summary Report** 

Simple Data Writer

**Graph Results** 

Save Responses to file

Generate summary result

Response time graph

Monitor results

Spline Visualizer

Mailer Visualizer

Distribution Graph (Alpha)

**Assertion Results** 

Comparison assertion results

#### **Jmeter Functions**

threadNum

intSum

\_\_longSum





## **BSF Scripting**

Introduction to BSF

Setting up BSF

**BSF Syntax** 

BSF -- JavaScript

BSF -- Groovy

BSF -- BeanShell





#### **Testing Database with Jmeter**

Database Testing with JMeter
Setting up jar files
JDBC with Oracle
Select Statement
Update Statement
Insert Statement
Delete Statement
Create Statement

#### **Testing Webservices with Jmeter**

Using parameterization

Introduction to Webservices
WSDL
UDDI
SOAP Message (Request & Response)
Test Plan for Webservice
WebService/SOAP Sampler
SOAP UI Tool
Freely exposed Webservice over Internet Example
Set up Xampp and MySQL DB
Inhouse Retail Project - Example

# Connecting the dots - Real time end to end scripting example

End to End Scenario

#### **Imeter in Non-GUI and Distributed Mode**

Test Execution
Executing tests in Non Gui mode
Editing a test plan in a text/XML editor
Jmeter test results in Non-gui mode
GUI support to view reports
Aggregate Report - load jtl file
Executing tests in Distributed mode
Configure the nodes





Start the servers
Configuring Jmeter Properties File
Distributed execution from a GUI client
Distributed execution from a NON-GUI

#### **Report Analysis and Monitoring Resources**

Statistics available from JMeter
Average, Median, Deviation
Throughput, 90 Percentile
Server Monitoring using jmeter plugin
Resource Utilization Monitoring
Perfmon metric collector listener
ServerAgent batch file
Blazemeter Plugin
Server metrics such as CPU & Memory usage
Monitoring and analyzing CPU resources
Monitoring memory utilization
Driving JMeter tests with Ant

#### **Testing Restful Webservices**

Restful Webservices
SOAP - WSDL, XML SOAP Message
REST based API
HTTP Methods- GET, POST, DELETE, PUT
MIME TYPES - JSON, XML
CRUD Operations from Jmeter
Sending Post Request from Jmeter
Sending JSON Payload
Asserting JSON Response

#### File download and upload

Uploading a file on server File downloading from server

## **Connecting with MYSQL Database**

JDBC MYSQL DB Connectivity





Fees: - Call at 9015041412 to know Fee

Duration: - 2 to 2.5 Months

## **Trainer Profile**

- Having 8 years of experience in Software Testing.
- 6 years dedicated experience in Performance Testing & 2 years of experience in Manual,
   Database, Security, and API Testing.
- Expertise in Performance Requirements Gathering, Test Strategy Design & Test Planning,
   Scripting, Application Monitoring and Test Report creation.

Proficient in Performance Testing Tools such as **HP Load Runner**, **Neo Load**, **Jmeter**.

