

*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 Testing

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

### Jmeter 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 create Test Plan to test websites

Different settings applicable in Jmeter

Different Results of Test Plan

Saving and Loading Elements

How to removing and adding Test Elements

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

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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

### Explantion 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  
what is Switch Controller  
Explanation of Module Controller  
Explanation of Include Controller  
Explanation of For Each Controller  
Explanation 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 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

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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 Drive 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 perform 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



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- Threads/Users
- Business Process
- Performance Testing Tools
- Performance Testing requirements/needs
- Performance Test Life Cycle
- Performance Test Planning
- Load Modeling
- Scripting
- Bench marking performance criteria
- Loading the test
- Reports generation and Analysis
- Bottlenecks identification

### Jmeter 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

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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

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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

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Java request Defaults  
User Defined Variables - UDV  
CSV Data Set Config  
HTTP Authrization 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  
Comparision assertion results

## Jmeter Functions

threadNum  
\_\_intSum  
\_\_longSum  
\_\_doubleSum  
\_\_StringFromFile  
\_\_javaScript  
\_\_BeanShell  
\_\_machineIP  
\_\_machineName  
\_\_TestPlanName  
\_\_log  
\_\_Random  
\_\_RandomString

\_\_property  
\_\_P  
\_\_setProperty  
\_\_time  
\_\_samplerName  
\_\_V  
\_\_FileToString  
Custom Functions / User defined Functions

### Bean Shell Scripting

Introduction to BeanShell Scripting  
Setting up BeanShell  
Eclipse IDE  
BeanShell Scripting Syntax  
BeanShell Samplers  
BeanShell Pre-processor  
BeanShell post-processor  
BeanShell Assertion  
BeanShell Timer  
BeanShell Listener

### 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  
Using parameterization

## Testing Webservices with Jmeter

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

## Jmeter 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

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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

### Selenium Jmeter Integration

Selenium WebDriver with Junit scripting  
Integration with Jmeter

### Connecting with MYSQL Database

JDBC MYSQL DB Connectivity

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Fees: - 10000

Duration :- 2 to 2.5 Months

#### Available Discounts

- **Flat 10% Discount** if joining on the **same day** of demo or enquiry.
- **Special discount** for group joining (minimum 5 students)
- Got someone's reference??, get **flat ₹ 500 Discount** .
- **Flat 1000/- Discount** for our old students.

**Note: - maximum one discounts are applicable for a single student**

#### Trainer Profile (Manish kumar Jha)

- ➔ Work experience of 6.6 years in **Software Testing**. In addition, Quality Assurance on Domains like **Finance, Ecommerce, Health Care** and **Casino Gaming**.
- ➔ **ISTQB** foundation level certified from **BCS** board UK.
- ➔ **Equity and Derivative** Certified from **NCFM(NSE) India**.
- ➔ **Financial Market** Certified from **NCFM(NSE) India**.
- ➔ Expertise in Performance Testing using **Jmeter**, Mercury's **Load Runner** tool for the purpose of Load, Performance and Stress Testing.

#### Counselling