

## Jmeter Course Content (W2A)

### Performance Testing Concepts

- What is performance testing
- Performance Life Cycle
- Load Testing
- Stress Testing
- Endurance Testing
- Spike Testing
- Threads, Rampup, duration, rampdown
- Scenario, flow and script
- Work Load Modelling
- Perf Vs Prod Environment
- Test Data
- Load Generator
- Understanding Application behaviour
- Performance acceptance criteria
- Performance reporting fundamentals

### Jmeter Introduction

- Jmeter Features
- Setup and Installation

Jmeter GUI overview

Introducing various elements

Creating a basic test plan

Running a basic performance test

## **Jmeter Script Recording**

Setting up proxy server

Recording a website

Recording from other ways

Formatting/managing test plan

Script replay

## **Thread Group**

Introduction

Covering different types:

Single thread group Multiple thread group Arrival

Concurrency

Stepping

Ultimate

TearDown

## **Samplers**

Introduction

Use of different samplers

HTTP Request

FTP Request

TCP Sampler

JDBC Sampler

SOAP/XML-RPC

Debug Sampler

## **Config Elements**

Http Cookie Manager

Http Header Manager

Http Cache Manager

Http Request Default

Counter and its use

Random Variable

User Defined Variable

CSV Data Set Config

Writing data to file

## **Listeners**

Introduction to listeners View Result in Tree

View Result in Tables Summary Reports

Aggregate Report

Different Graphs reports and concepts Understanding

Performance Reporting metrics:

Average

Mean

Median 90,95,99% line Std

Deviation Response time

Latency Throughput Bytes

Connect Time

Save Response to a file Simple Data

Writer

## **Timers**

Introduction

Use of Timers

Managing load/users through timers

Constant Timer

Uniform Random Timer

Synchronizing timers

Constant Throughput timer

## **Pre and Post Processor**

Introduction to Pre/Post Processor Use  
case

User Parameter

Sample Timeout

Regular Expression Extractor

Json Extractor

Result Status Action Handler

BeanShell Pre and Post Processor (Separate detailed Session on  
this)

## **Logic Controllers**

Overview

Transaction Controller

Once only Controller

Loop Controller

Interleave Controller

Throughput controller

If controller

While Controller

For Each Controller

Module Controller

Include controller

Simple Controller

Random Controller

## **Assertions**

Introduction to assertions

Finding best content to assert

Response Assertion

Size Assertion

HTML Assertion

Duration Assertion

XML Assertion

BeanShell Assertion

## **Jmeter Functions**

Encoding Functions (base64, urlDecode, urlEncode, char, escapeHTML) Random Number

Random date and Time

String Functions (toUpper, toLower, subString, randomString, changeCase, strLen..) ChooseRandom

Is Defined

threadNumber

randomFromMultipleVar

Other function overview

## **Bean Shell Scripting**

Basic Understanding

Getting and setting variables

Understanding scope

## **DB testing**

Basic concepts

Building JDBC test plan

Running test and reading report

## **Non GUI and Distributed Mode**

Optimizing Jmeter resource usage

Running Jmeter from Command Line

Distributed Testing using Jmeter

## **Jmeter Reports and Graphs**

Generating HTML report

Analysing test result in Excel

Performance reporting key terms

## **Application resource monitoring and test result analysis**

Performance test an application

Monitoring different performance parameters

Identifying issues and bottlenecks

## **Jmeter Plugins**

Make use of plugins

Selenium integration

Various ThreadGroups

RandomCSV

Throughput Shaping timer

## **Advance Performance test plan design**

Using various elements to design advance performance test plan

Fixed load scenario

Fixed concurrent user scenario

## **Jmeter Properties**

Understanding properties files

Get familiar with various properties keys

## **Integration with Webservices API Testing**

Introduction to Webservices

WSDL

UDDI SOAP Message (Request & Response)

Test Plan for Webservice

WebService/SOAP Sampler

## **Integration with BlazeMeter**

