7 Years ANNIVERSARY

NEXT
IT CAREER
Moving minds to right place

Since 2017

APACHE JMeter™

JMETER
Certification Training

Best Training and Placements Institute

Address 1: Flat number 211, 2nd floor, Aditya Enclave, Annapurna Block, Ameerpet, Hyderabad, Telangana 500016

+91 - 7995138210
+91 - 7013123485

Address 2: 2nd floor, Amrutha Arcade, SAP St, behind Mythri Bar & Restaurant, 1st Left, Srinivasa Nagar, Sanjeeva Reddy Nagar, Hyderabad, Telangana 500038

contact@nextitcareer.com

About Next IT Career

Next IT Career Best Software Coaching Center in Hyderabad Corporate training is a function of human resource management that aims to provide the organization's employees with the knowledge and skills required to be successful. In turn, the growth of employees also contributes to the success of the business.
In recent years, Its also seen as a long-term strategic assignment rather than a cost center for the organization. The majority of companies have embraced 'continual learning' in it to promote employee growth both professionally and personally and acquire a highly skilled workforce as a result.

Corporate Training

Classroom Training

Online Training

NEXT IT CAREER
Moving minds to right place

Why Choose Us?

Training by Certified Instructors

Mock Interviews

Weekly Assignments

Project Training

Interview cracking tips

Resume Preparation

Course Syllabus

Module 1 – PERFORMANCE TESTING

JMeter – Core2Advanced - Day Wise Topics

Basics Day1

- Basics of computer
- Keyboard short cuts
- Remove System & Browser history
- Introduction to Software Development & Software Testing
- Software Development Life Cycle (SDLC) & Phases
- Software Testing Life cycle (STLC) & Phases
- Types of Software Testing
- Functional Testing & Non-Functional Testing
- Tools Used in Functional & Non-Functional Testing
- Introduction to Performance Testing & JMeter
- Manual, Automation, Performance & Security Testing
- SDLC Methodologies
  1. Water Fall model
  2. V-Model
  3. Agile Model – Jira Board & Confluence Real Time Explanation
- Terms used in Software Testing: - Defect, Bug, Bottlenecks
- Vulnerabilities
- Defect/Bug Life Cycle
  1. Defect life cycle phases
  2. What is priority?
  i) P1, P2, P3, P4
  3. What is Severity?
  i) S1, S2, S3, S4

Day2: Basics of Performance Testing

- Performance Testing technical definition
- Performance testing V/S engineering?
- Why Performance Testing Need for Performance Testing
- Symptoms of Application Slowness

- Examples of Loss occurred by many Brands due to poor
- Application performance • Objectives of Performance Testing
- Why performance testing?
- Purpose of Performance Testing
- Which application should we performance test?
- Need for Performance Testing Tools
- Real Users & Virtual Users (or V-Users)
- What Performance Testing Tools Do?
- When Performance Testing can be Done?
- Tools used in performance testing?
- Why to Learn JMeter?
- RFI & RFP
- HTTP Request response Structure
- What is POD? And what is DC?
- Horizontal VS Vertical scaling
- Load Balancer • Performance Testing Terminologies
- Performance Testing Pre-Requisites
- Types of Performance Tests
- Bench mark vs Base line testing

Module 2

Note: All the below concepts will be explained with real time documents

Day3

- Proof of concept (POC)
- Statement of work (SOW)
- Performance testing environment setup

Day4

- Non-Functional Requirements (NFR)
- Competitor tool
- General
- Architectural
- Business
- Entry & Exit Criteria

Day5

- Test Strategy
- Test Plan
- MODULE - 2

Day6

- JMeter Introduction, History, Versions, Protocols Supported & Its Features
- Which application should we performance test?
- Why performance tools came into picture?
- Understanding JMeter is Not a Browser
- How a Performance Testing Tool like JMeter Works?
- Need of Java Installation for JMeter
- Java (JDK & JRE) Installation
- Commands to Verify JDK & JRE Installation
- Which Java is Best to Use for JMeter?
- Java Environment/ System Variable (or Home Path) Setup
- How to Change Java in Use if multiple versions of Java is Installed in System?
- Pre-requisites to use JMeter • JMeter Download & Launching on Windows OS
- JMeter 2 Launching Modes • Importance of Launching JMeter from CLI or Non-GUI
- JMeter Directory Structure
- JMeter Application GUI/IDE Walkthrough
- JMeter Terminology
- Some other Points related to JMeter
- JMeter Download & Launching on MAC OS
- JMeter Download & Launching on Linux/ Unix/ Ubuntu OS

Day7

- Core Concepts of Performance Testing
- Servers & Its Types (web, App, DB)
- Protocol & Its Examples
- Performance Testing Life Cycle in JMeter
- Test Scenarios, Test Cases, Test Suite, Transactions, Recording, Enhancement, & Debugging
- Web protocol types
- URL Structure
- HTTP(s) Protocol: - Request, Response, Headers, Request Methods, & Response Codes

Day8

- Transaction (or User Action)
- Hits, Requests, Transactions, & Their Counts in Per Unit Time
- Cache, Cookies & User Session
- Server-Side & Client Side (or UI) Performance Testing
- Client-Server Application Architecture (1-Tier, 2-Tier, 3-Tier & N-Tier)
- Application Layers & Its Types (PL, BLL & DML)
- Web Server, App Server & DB Server & Their Functionality
- Web server, app server and DB server setup
- Thin Client & Thick (or Fat) Client Applications
- 2-Tier and 3-Tier Difference
- Why Application becomes Slow?
- Importance of Knowing the Application Architecture in Performance Testing

Day9

- Terminologies in JMeter with respect to Performance Testing
- JMeter's 12 Major Elements (Or Components)
- Recording in JMeter, & Port & Proxy Server Setup
- Understanding Transaction, Request, Response, Headers, Request Methods
- Response Codes, Protocol, URL, Port, Path, etc. in JMeter
- Different Views of Response in JMeter
- Transaction Controller, Transactions & Respective Requests, & Their view in View Results Tree
- Saving Recording Logs to a File & Use of Brushes
- Irrelevant Requests & Embedded Resources & Why to Filter Them?
- Port & Proxy Server Setup & Recording from Different Browsers
- How to Filter Irrelevant Requests & Embedded Resources?
- "Recording" Template of JMeter & Its Use
- What to Keep & Not to Keep?
- HTTP & HTTP(s)
- JMeter Certificate Installation in Different Browsers, Certificate Re-Generation, Domain Based Certificate Generation, & Steps for Certificate Re-Installation
- Use of Recording Controller in JMeter & Its uniqueness
- Use of Transaction Controller in JMeter & Its uniqueness

Day10

- JMeter 3rd Launching Mode, i.e. Proxy Mode
- Property Display (Non-Test) Element • HTTP(s) Test Script Recorder Element, Its Attributes, & Its Best Practices Settings
- Best Practices for Recording in JMeter
- Why to record in Incognito mode Or with Cookies & Cache cleared in normal mode of Browser?
- Set of Approaches when Recording is Not Happening in JMeter
- Walk-through of JMeter's Directory: - Various Files & Folders
- How to Open a JMX file by Double Clicking It?
- JMeter's Properties Files
- Undo, Redo, & Backup Features in JMeter
- Increasing View Results Tree's Line Limitation
- Increasing JMeter Certificate's Expiry Time
- JMeter Plugin Manager, Plugin Installation & Uninstallation by 2 Ways
- Scenarios Identification & Documentation for Performance Testing of a Web Application (HTTP(s) Protocol)

Day11

- End to End Recording & Script Enhancement with Best Practices for above Scenario (Product Booking)
- Dynamic Values, Their Types, Importance & Functioning, & How & Why They Occur?
- Authorization/ Authentication Tokens (or Values) Examples
- JMeter Script Enhancement with Best Practices (continued)
- Where Dynamic Values May Occur in the Script?
- How to Identify Dynamic Values?
- Why & How to Handle Dynamic Values?
- Correlation & Parameterization
- Use of Regular Expression Extractor
- Use of Debug Sampler

Day12

- JMeter Script Enhancement with Best Practices (continued)
- Correlation & Parameterization (continued)

Day13

- JMeter Script Enhancement with Best Practices (continued)
- Correlation & Parameterization (continued)
- Redirection Concept (301, 302, 303, 304), etc.

Day14

- JMeter Script Enhancement with Best Practices (continued)
- Correlation & Parameterization (continued)
- E.g. of Extracting a Value with Left Boundary but No Right Boundary
- Extracting Value from Response Header
- Use of Dummy Sampler
- Regular Expression Extractor's Attribute: - Default Value, Field to Check & Apply To
- HTTP Cookie Manager
- HTTP Cache Manager
- HTTP Protocol is Stateless Protocol
- How we make JMeter behave like a Real Browser? Ans: - 5 Settings
- Correlating Recording Log & Replay Log for a Request in case of any Failure

Day15

- JMeter Script Enhancement with Best Practices (continued)
- Test Data Preparation & Use of CSV Data Set Config Element with my SQL
- Making Script more Realistic, Modular, Dynamic & Re-Usable
- Correlation & Parameterization (continued)
- Regular Expression Extractor's Attribute: - Match No.

Day16

- JMeter Script Enhancement with Best Practices (continued)
- Correlation & Parameterization (continued)
- Test Data Preparation (continued
- __Random() function
- __RandomDate() function
- __RandomString() function

Day17

- JMeter Script Enhancement with Best Practices (continued)
- Adding Response Assertion with Best Practices
- Response Assertion & Its Attributes

Day18

- JMeter Script Enhancement with Best Practices (continued)
- Adding Response Assertion with Best Practices (continued)
- Response Assertion & Its Attributes (continued)
- Think Time, Custom Think Time & Pacing in JMeter
- Use of User Defined Variable Element

Day19

- JMeter Script Enhancement with Best Practices (continued)
- Think Time, Custom Think Time & Pacing in JMeter (continued)
- Error Handling using Result Status Action Handler element in JMeter
- Test Script Stabilization
- Thread Group's Attributes: - Users, Ramp Up, Ramp Down, Loop Count
- Duration, Delay, etc
- Deleting Or Disabling All Listeners & Unnecessary Elements
- Validate option
- Start No Pauses option

Day20

- End to End Recording & Script Enhancement with Best Practices for
- Another Scenario (User Registration)

Day21

- • End to End Recording & Script Enhancement with Best Practices for another Scenario (User Registration) (continued
- __Random() function
- __RandomString() function
- End to End Recording & Script Enhancement with Best Practices for 3rd
- Scenario (Login)
- Use of Aggregate Report Listeners

- Time Stamp (or Epoch Time) & Its Handling in JMeter
- __time() & __time Shift() function
- How to Generate a Never Repeating Random Number Or a Unique Number Or a Unique String in JMeter?

Day22

- Regular Expression in JMeter
- Meta Characters in Regular Expression
- Writing a Regular Expression
- What is (.+?) & Why we Use It?
- Regular Expression Extractor & Its Attributes

Day23

- Regular Expression in JMeter (continued)
- Regular Expression Extractor & Its Attributes (continued)
- Dynamic Values Extraction in JMeter with Realtime Use Cases Examples
- The General Expression
- E.g. of Multiple Values Extraction by Ignoring Middle Values
- E.g. of Escape Character
- E.g. of Extracting a Value in Newline
- E.g. of Extracting a Value with Left Boundary but No Right Boundary

Day24

- Realtime Use Cases Examples of Dynamic Values Extraction in JMeter • (continued)
- E.g. of Extracting a Value with both Varying Left & Right Boundary
- E.g. of Extracting the Single Value in Response with No Left & No Right
- Boundary
- E.g. of Extracting Complete Response
- E.g. of Extracting Response (Status) Code
- E.g. of Extracting Response Message
- E.g. of Extracting a Value from Response Header
- E.g. of Extracting Complete Headers
- E.g. of Picking Value Sequentially (Or in a Pattern) by Each User
- E.g. of Capturing Last Dynamic Value
- __V() function

Day25

- CSV Data Set Config & Random CSV Data Set Config
- Boundary, JSON, XPath & CSS Extractors
- Duration, Size & other Assertions

Module 3

Day26

- Test Execution with Best Practices Or Best Practices for Load Testing in
- JMeter: - Settings in Script, in “user. Properties” file & Heap Size
- JMeter Heap Size (or Java Memory)
- How & Why to Increase JMeter’s Heap Size?
- Understanding Impacts of Heap Size in functioning of JMeter
- Up to how much Memory can be increased?
- Factors affecting User Load generation by JMeter from a Single System
- How much User Load can JMeter generate from a Single System & How to find that value?
- Use of J-Visual VM to find memory consumption by JMeter

Day27

- Test Execution & JTL file Generation from Non-GUI Mode
- Summarizer of Non-GUI Mode in Detail
- HTML Report Generation from Non-GUI Mode with Best Practices
- HTML Report with Transactions & Requests
- Understanding JMeter HTML Report
- HTML Report with Transactions, Requests & Embedded Resources

Day28

- HTML Report with only Transactions
- HTML Report with only Needed Transactions & Requests
- Understanding Execution Commands with Best Practices
- Importance or Beauty of JTL file
- Use of View Results in Table Listeners
- Ignoring Embedded Resources Failures while Running the Test in JMeter

- Response Time Values in Seconds in HTML Report
- Decreasing the Summarizer Interval Time
- Disabling Embedded Resources Renaming as of Parent Request
- 70%, 80% & 90% in HTML Report & in Aggregate Report Listener

Day29

- Stopping Test Execution in Non-GUI Mode
- Test Execution, JTL file Generation & HTML Report Generation from GUI Mode
- Use of Simple Data Writer Listener
- Saving Complete Request & Response of a Test while Test Execution to a File (JTL or XML)
- Saving Request & Response for Only Failed Requests of a Test while Test
- Execution to a File (JTL or XML)
- Test Execution Commands for Proxy Mode
- Understanding JMeter HTML Report (continued)
- APDEX in JMeter HTML Report
- 90% or 95% or 99% Response Time in Detail
- Why 90% Response Time is Used in Performance Testing?
- Graphs in JMeter HTML Report

Day30

- HTTP Response Codes (or Status Codes)
- Types of Performance Testing
- Concurrent Users & Simultaneous Users
- Test Run, Analysis & Reporting
- Baseline, Bottlenecks & Benchmark
- Why Application becomes Slow?
- Importance of Knowing the Application Architecture in Performance Testing
- Latency, Bandwidth, Throughput, Response Time, Connect Time, Service Time, Queue Time, Standard Deviation
- Parameterizing Important Parameters Using __P() function & Why to Use this function?
- Passing Arguments from CLI in Non-GUI Execution
- Assigning Values from JMeter's "user. Properties" File to Variables declared using __P() function & Using them in Non-GUI Test
- Creating Own Custom Properties File & Passing That Properties File from CLI in Non-GUI Execution
- Running 2 or More JMeter Test Scripts (or JMX Files) Sequentially in One Go in Non-GUI & GUI mode

Day31

- Absolute & Relative Path Concept in JMeter
- Debugging of Script in JMeter: - 4 helpful options
- Log Viewer, Types of Log Level, & Example
- JMeter & Distributed Load Testing using Load Generators (LGs) (Master & Slave Concept Or Remote Testing)
- Pre-Requisite Configuration (Or Requirements) to Do this Setup
- Making Communication Set-up b/w Master & Slave JMeters – 2 Ways
- Distributed Test Execution from GUI & Non-GUI Modes
- Limitations of Distributed Load Testing in JMeter
- Errors Related to Distributed Load Testing in JMeter
- Alternate Way of Distributed Load Testing in JMeter

Day32

- JMeter & InfluxDB - Grafana Integration (with InfluxDB v1.x)
- Jmeter & Promotheous – Grafana Integration (with Promotheous)

Day33

- JMeter & Jenkins Integration
- Running a JMeter Job in Jenkins
- Running a JMeter Job with Arguments in Jenkins & HTML Report Generation
- Running a JMeter Job with Integration of Jenkins Performance Plugin
- Running a Parametrized JMeter Job with Arguments in Jenkins

Day34

- Test Suite Creation in JMeter OR Merging & Running Two or More Scenarios/Thread Groups in JMeter
- Understanding Simple Way to Create Test Suite
- Workload Modelling or User Load Distribution across different Scenarios
- Test Suite Execution & Its HTML Report Generation
- Use of Module Controller & Test Fragment to Create Test Suite
- Use of Include Controller to Create Test Suite

Day35

- Scope of JMeter Elements & Variables
- Local & Global Variables
- Execution Order (or Presidency) of JMeter Elements
- 3 Ways to Take Help in JMeter for Its Elements & Functions
- JMX, JTL, CSV, XML, HTML: - Understanding Them
- Blaze Meter Organization, Plugins offered by It, & Execution in Blaze Meter Cloud
- JMeter Intro & Pro Certification
- 3rd Party Ways for Recording & Exporting to JMeter

Day36

- 3rd Party Ways of Recording & Exporting to JMeter
- Custom Script Creation using c-URL cmd & Importing to JMeter
- Custom Script Creation using HAR & Exporting to JMeter
- Capturing Traffics using Fiddler tool & Exporting to JMeter
- Recording using Blaze Meter Chrome Plugin & Exporting to JMeter
- Limitations of 3rd Party Ways for Recording

Day37

- JMeter Elements, Their Sub-Elements & Their Attributes in Detail
- Test Plan Element of JMeter
- Non-Test Elements of JMeter
- Threads & Thread Group Elements of JMeter
- Thread Group
- Setup Thread Group
- Tear Down Thread Group
  1. Stepping Thread Group
  2. Ultimate Thread Group
  3. Concurrency Thread Group

Day38

- Controller Elements of JMeter
- Recording Controller
- Transaction Controller

- Simple Controller
- Loop Controller
- Runtime Controller
- Random Controller
- Random Order Controller
- Interleave Controller
- Once Only Controller
- Parallel Controller
- Throughput Controller
- Switch Controller
- If Controller

Day39

- While Controller
- Module Controller
- Include Controller
- For each Controller
- Critical Section Controller
- Sampler Elements of JMeter
- HTTP Request
- Debug Sampler
- Dummy Sampler
- JDBC Request
- FTP Request
- WebDriver Sampler
- Access Log Sampler
- SMTP Sampler
- Mail Reader Sampler
- Flow Control Action
- Bean Shell (& JSR223) Sampler
- OS Process Sampler

Day40

- Config Elements of JMeter
- HTTP Header Manager
- HTTP Cookie Manager
- HTTP Cache Manager

- HTTP Request Defaults
- User Defined Variables
- CSV Data Set Config & Random CSV Data Set Config
- Counter Config Element
- Random Variable Config Element
- HTTP Authorization Manager
- Windows Authentication or Browser Pop Up Handling
- JDBC Connection Configuration
- FTP Request Defaults
- WebDriver Config
- Assertion Elements of JMeter
- Response Assertion
- Duration Assertion
- Size Assertion
- Bean Shell (& JSR223) Assertion

Day41

- Timer Elements of JMeter
- Constant Timer
- Uniform Random Timer
- Gaussian Random Timer
- Poisson Random Timer
- Think Time in JMeter

Day42

- Synchronizing Timer
- Big Billion Day or Black Friday or Rendezvous Scenario
- Throughput in PT
- Constant Throughput Timer
- Pacing in JMeter
- Little's Law to Calculate Pacing, Think Time, Number of V-Users, etc.
- Listeners Elements of JMeter
- Pre-Processors Elements of JMeter
- Post-Processors Elements of JMeter

Day43

- JMeter & Bean Shell (or JSR223) & Understanding It w.r.t. Java with
- Realtime Use Cases Examples
- Introduction
- Bean Shell (& JSR223) Sampler
- Bean Shell (& JSR223) Pre-Processor
- Bean Shell (& JSR223) Post-Processor
- Bean Shell (& JSR223) Assertion
- Variables, Integers, Strings
- Logging/Printing Values in JMeter Log Viewer & JMeter Console: - log.info(), print() & System.out.println()
- vars.put() & vars.get()
- Integer to String Conversion

Day44

- Saving/Writing a Correlated Value to a File
- Saving/Writing multiple Correlated Values to a File
- Overwrite & Append operations
- JSR223 Element w.r.t. to Java
- Test Data Preparation & Saving/Writing User Credentials to a File
- Test Data Preparation & Saving/Writing User Credentials to a File for only Success Transactions
- String Comparison

Day45

- Saving/Writing User Credentials for Success Or Failed Users from a Long List of Test Data to a File
- Saving/Writing Users with their Booked Order Details to a File
- Addition Or Other Mathematical Operations to a Number using JMeter Functions Or Java Code
- String to Integer Conversion & Integer to String Conversion

Day46

- Storing All Matches Or All Values Stored in an Array Variable to a Single
- Variable, Shuffling, Removing Or Saving/Writing to a File
- Replacing or Removing a Character or Spaces from a Value

- Trimming Start & End Spaces from a Value
- Prev.get & ctx.get
- Saving Complete Response to a Variable
- Saving a Single Value in Response to a Variable
- Failing/Passing a Request based on certain Condition & Stopping User on
- Failure (E.g. of Bean Shell Assertion)

Day47

- Creating & Deleting Files & Folders: - All Files, Files with a Particular Extension, Clearing a Directory (or Folder)
- Passing a Value from One Thread Group to Another Thread Group: __setProperty(), __property() & props()
- Looping one or set of Transactions based on certain Condition (E.g. of While Controller)
- Booking an Order till a Particular Amount is Achieved in “Add to Cart” Transaction (E.g. of While Controller)
- Executing different Transactions based on certain Cases or Conditions (E.g. of Switch Controller)
- Error Handling in JMeter

Day48

- JMeter & FTP Server Testing (File Upload & Download)
- JMeter & HTTP(s) File Download Scenario
- JMeter & HTTP(s) File Upload Scenario

Day49

- JMeter & REST API Testing
- API testing using Postman
- Use of JSON Extractor
- JMeter & SOAP API Testing

Day50

- JMeter & Database (Queries) Testing

Day51

- Server-Side Matrices
- JMeter & PerfMon for Server Monitoring
- Client-Side (or UI) Matrices
- Client-Side (or UI) Performance Testing Tools

Day52

- JMeter & Selenium WebDriver Integration for Page Load Testing (or UI)
- Client Side or User Experience Testing

Day53

- JMeter & IP Spoofing (or Geo-Location Testing)
- JMeter & Network Speed Simulation to Test at Different Network Bandwidths (or Network Throttling)

Day54

- JMeter Functions

Module 4

Day55

- Web vitals using Light House
- Load balancing techniques
- Thread dump
- Heap Dump
- Garbage Collection
- Dynatrace
- AppDynamics
- Eclipse-MAT
- J Visual-VM /J-Profiler

INCLUDING TRAINING

1. Resume Preparation
2. Interview Questions
3. Mock Interviews
4. One Bank Project
5. Placement Assistance

NEXT IT CAREER
Moving minds to right place

Our Other Courses

Trending Software Testing courses

Manual Testing	Selenium Automation	Tocsa
ETL Testing	Performance Testing	API Testing
Load runner	J-meter	Neo load

Most Trending Courses

Data Science	Data Analytics	Scrum Master

Most Demand Courses

AWS DevOps	Azure DevOps	Power BI
Java Full Stack	Python Full Stack	Cyber Security

NEXT IT CAREER
Moving minds to right place

Our Recruitment Partners

TCS TATA CONSULTANCY SERVICES | genpact | accenture | NOUS INFOSYSTEMS | TestingXperts Passion For Perfection

cognizant | CGI | Capgemini | NTT | wipro

yatra | Deloitte. | EMERSON | IGT | Qualcomm

glance | Ford | EXL | Cigniti Software Quality Assured | zeta

goibibo.com | HCL | HDFC BANK | ARTECH INTELLIGENCE IS HUMAN | Caliber Deliver More. Deliver Excellence

Myntra | Infosys | IBM | aprovesign COMUNICAÇÃO VISUAL | DQ Labs Run by IITians

paytm | syngenta | Tech Mahindra | aspire SYSTEMS attention. always. | FedEx

Convertcart | expleo | Sotiotech Collaborate • Execute • Impact | AllCloud | ARTECH INTELLIGENCE IS HUMAN

Our Branches

Address 1: Flat number 211, 2nd floor, Aditya Enclave, Annapurna Block, Ameerpet, Hyderabad, Telangana 500016

Address 2: 2nd floor, Amrutha Arcade, SAP St, behind Mythri Bar & Restaurant, 1st Left, Srinivasa Nagar, Sanjeeva Reddy Nagar, Hyderabad, Telangana 500038

+91 - 7995138210
+91 - 7013123485

contact@nextitcareer.com

Our Infrastructure