

#### ID LRE Price on request Duration 5 days

#### Who should attend

Quality assurance and performance engineers, users of LoadRunner Enterprise who need to load test their web applications, and executives involved in any aspect of the load testing process

#### **Prerequisites**

To be successful in this course, you should have the following prerequisites or knowledge:

- Have a working knowledge of Windows, websites, and browsers
- A fundamental understanding of C programming is helpful but not mandatory

#### **Course Objectives**

On completion of this course, participants should be able to:

- Explain the LoadRunner Enterprise architecture
- Perform the following LoadRunner Enterprise admin activities:
- Manage user accounts
- Assign user privileges
- Manage multiple projects
- Oversee server resources
- Manage test executions
- · Monitor and analyze error information using various reports
- Plan effective load tests
- Create, configure, and execute load tests
- Use analysis graphs to determine whether the test achieved the set goals
- Replay and debug the script in VuGen
- Work with the VuGen Editor
- Record scripts for the web environment using the Virtual User Generator (VuGen)

#### **Course Content**

#### LoadRunner Enterprise (LRE) Essentials – Three Days

#### Module 1: Course Overview

- · Identify the contents and objectives of the course
- Define the class schedule and class logistics
- · Identify the related courses
- · Discuss the lab environment details

#### Module 2: Introduction to LoadRunner Enterprise (LRE)

- Describe the basic LRE architecture and functionality
- Provide an overview of LR Enterprise
- Explain the roles and tasks of the Performance testing team members
- · Identify the steps of the load testing process

#### Module 3: What's New in LoadRunner Enterprise (LRE)

- Discuss LoadRunner portfolio
- Describe the new features of LoadRunner Enterprise
- Discuss data and analytics
- Discuss cloud and SaaS
- Discuss security and infrastructure
- Explain integrations and ecosystem
- Discuss modernization
- Explain VuGen, Protocols
- Discuss LoadRunner Developer

#### Module 4: Using the LoadRunner Enterprise Administration

- Explain the purpose and advantages of LRE Administration
- Explore different features present under the Administration
- · Describe the privilege levels and access rights for a project

#### Module 5: Planning an Effective Load Test

- Analyze the Application Under Test (AUT)
- Gather preliminary information before load testing your system
- · Organize system information effectively
- · Use the gathered information to plan load tests

# Module 6: Working with Vuser Scripts, Managing Timeslots, and Creating Monitor Profiles

· Prepare and modify Vuser scripts



- Connect VuGen to an LRE session
- Upload Vuser scripts to LRE
- Define timeslots
- · Reserve and manage timeslots successfully
- Create monitors

## Module 7: Working with Load Tests and Associating Monitor Profile

- Create a test set
- Configure scheduling options for the test
- Set load test goals using SLAs
- Define workload settings
- Schedule performance test
- Associate Monitors profile to load test

#### Module 8: Updating Runtime Settings and Defining SLA

- · Configure load test settings
- Configuring the Monitor settings
- Create monitor profiles
- Define Service Level Agreements (SLAs)

#### Module 9: Running Load Tests

- Configure the project settings and LRE Controller options
- Explain the performance test run flow
- Monitor the flow of the performance test run
- Monitor the performance test run
- · Analyze the performance test results
- Explain the best practice to be followed in the load test run process

## Module 10: Accessing Test Runs and LRE Analysis with Performance Trends

- Collating and analyzing the load test data
- Generate reports and graphs for a test set
- · Download the load test results files
- Managing analysis template and performance trends

#### Virtual User Generator (VuGen) Essentials – Two Days

#### Module 1: Course Overview

- · Identify the contents and objectives of the course
- Define the class schedule and class logistics
- · Identify the related courses
- Discuss the lab environment details

#### Module 2: Introduction to Virtual User Generator (VuGen)

- Define Virtual User (Vuser) and VuGen
- Explore the new look and feel of the VuGen UI
- Explain how to use the step navigator and solution explorer
- Discuss the script workflow
- Create scripts using VuGen
- Record business processes with VuGen

#### Module 3: What's New in VuGen 2023 R1

- Discuss the improvements in VuGen
- Describe the protocol enhancements

#### Module 4: Recording Scripts for Web Applications

- Create VuGen scripts by recording user steps
- Save scripts
- Create a Vuser script template
- Create business process reports

#### Module 5: Replaying and Debugging the Vuser Scripts

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- Identify and configure the appropriate web run-time settings for replaying scripts
- Replay and debug the script in VuGen
- Recognize the debugging tools available in VuGen

#### Module 6: Auto Correlation After Recording

- Describe correlation
- Work with Design Studio
- Correlate dynamic values after recording a script

#### Module 7: Using Manual Correlation

- Explain the manual correlation process
- Configure the parameters for correlation
- Correlate a script manually by:
- Using the WinMerge utility
- Adding the web\_reg\_save\_param\_ex correlation function
- · Parameterizing the dynamic value in the script

#### Module 8: Inserting Transactions into the Script

- Explain the use of transactions in a script
- Add a transaction into a script during the recording
- Insert a transaction into a script after recording

#### Module 9: Parameterizing a Script

- Define parameterization
- Determine when to parameterize a script

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- · Create and modify parameter lists
- Create new parameters
- Work with parameter properties

#### Module 10: Verifying the Vuser Scripts

- · Identify the need to use verification in scripts
- Define verification for scripts
- Add text checkpoints during and after the recording of scripts

#### Module 11: Creating Actions for a Web Script

- Define an action for a web script
- Record a script with multiple actions
- · Create action blocks

#### Module 12: Using the VuGen Editor

- Work with the VuGen Editor
- Send customized output messages to the Replay Log
- Identify basic C code, including statements, variables, and functions
- Apply basic debugging techniques in VuGen

# Module 13: Using the Advanced Scripting Techniques for Vuser Scripts

- Explain the general LR functions
- Explain the protocol-specific functions

## Module 14: Using Correlation Rules to Auto Correlate during Code Generation

- Create correlation rules to auto correlate
- · Regenerate and record scripts
- Import and export correlation rules

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