Performance Testing with LoadRunner

Web Application and their Evolution
- SDLC
- HTTP Response codes, Request Response Cycle
- 2 tier, 3 tier, n-tier Architecture
- Traditional and New 3 tier Architecture

Introduction to Performance Testing
- What is Performance Testing
- Importance of Performance Testing
- Testing Life Cycle and Performance Testing Life Cycle
- Goals of Performance Testing
- Laws of Performance Testing
- Few basic definitions in Performance testing terminology
- Some basic Maths and their significance in Performance
- Web communication protocols
- RFI and RFP
- Requirements Gathering
- Test Plan and its components
- What is a performance bottleneck?
- Prerequisites for Performance testing
- Types of Performance tests (Load, Stress, Soak/Endurance, Volume, Scalability, Configuration, Capacity testing)
- What is Bench mark and Base line testing
- Load testing Architecture
- Performance testing Methodologies
- Introduction to various Performance testing tools and their components
- Sniffer tools

LoadRunner
- Introduction to LoadRunner
- LoadRunner Features and its Components
- LR and WebTours Installation
- Performance Center

Virtual User Generator
- Modes of Recording
- Recording a script with best practices and Industry Standards
- Recording options and their significance
- Correlation and Parameterization
- Run time settings
- Transactions and Sub transactions
- Pacing, Think time etc
- Enhancing and debugging a script
- LR Variables Vs C Variables
- Custom requests
- Some frequent script issues and Resolutions
- Correlation functions and other frequently used functions

Scripting
- 10 scripts to be covered with Java, .Net applications with all correlation functions
- web_custom_request and challenges
- Naming conventions and Scripting standards
- Mandatory hands on training on scripting, test executions and preparing Report.

Controller
- Introduction to Controller
- Test environment setup
- Basic Schedule Vs Real World Schedule
- Manual Scenario vs Goal oriented Scenario
- Schedule by Scenario Vs Schedule by Group
- Anatomy of a Controller and Default graphs
- Scenario Run time settings
- Test Executions
- Server Monitoring
- Trouble shooting and knowledge base
- Controller Vs Performance Center

Analysis
- Intro to LR Analysis component
- Step by step approach to Analysis
- Adding and Merging Graphs

- Correlating Client side and Server side metrics
- LR Analysis tips and tricks
- Raw data/Graph data

Monitoring

- Metrics to monitor at each layer
- Pulling AWR Report and Analysis
- Perfmon for small applications
- Different tools for Monitoring
- Java Melody tool, JVisualVM