Overview

Performance testing is crucial for the success of businesses being an important phase in the testing life cycle. It helps one know the behaviors of applications under load conditions. For example, a load condition is when a website encounters extraordinarily heavy traffic. A high performing application is one that lets the end user carry out a pre-defined task without undue perceived delay or irritation. Performance should not lie in "the eye of the beholder" or in other words, an application should be perceived objectively by all its end users.

Course Objectives

At the end of the course, successful trainees will be able to:

- Explain the importance of performance testing and its place within the software lifecycle
- Understand the fundamentals of performance testing
- Define the performance testing phases
- Estimate the time and cost required for performance testing
- Describe performance test procedures
- Mitigate typical performance test challenges

Syllabus

- What is performance?
- Difference between performance testing and performance engineering?
- **Step I:** Plan load test
- **Step II:** Create virtual user scripts
- **Step III**: Create a scenario
- Create a performance test plan
- Production system usage
- Service Level Agreements
- Transactions per hour (TPH)
- Objectives of Virtual user generator / Thread Plan
- **Create a thread group(Jmeter)**
  - JMeter Fundamentals
    - ✓ Introduction to JMeter
    - ✓ Features of JMeter
    - ✓ Executing a test script
    - ✓ Viewing & analyzing Test Results
    - ✓ Creating & using user-defined variables
  - Creating & Using Test Plans
  - Thread Groups & user threads
  - Sending Server Requests using Samplers

- Analyzing test results using Listeners
- Verifying Results using Assertions
- Pausing threads in JMeter
  - ✓ Constant Timer
  - ✓ Uniform Random Timer
- Using a Test Script Recorder
  - ✓ HTTP(S) Test Script Recorder
  - ✓ Recording Controller
  - ✓ Viewing & importing Certificates
- JMeter Functions & Variables
  - ✓ Using JMeter in-built functions
  - ✓ Using user-defined variables with functions
- Pre-processors & Post-processors
- Record login test using Blazemeter plugin
- Execution order of test elements
- Hands-on session
  - ✓ Create test scripts with samplers & listeners
  - ✓ Verify, analyze & pause results using Listeners, Assertions & Timers
  - ✓ Record script using test script recorder
  - Use Blazemeter plugin to record login test
- Types of Parameterization & setup
- Types of Correlation & setup
- Correlation rules
- Text check point
- Introduction about Analysis
- Introduction about Graphs, Settings
- How to create report (Word and HTML)

Audience

Software Testers who is about to, carry out performance testing. Any test manager who is, or is about to, manage a performance testing project.

Duration

- (6) Days
- (24) Hours: (4) Hours/Day.

Pre-requisite:

A background of basic software testing principles is required.