

Workshop: Load Testing

Target audience:

Software engineers, quality assurance professionals, System testers/designers/tuners, and project leaders who are involved in system testing can benefit from this course. A working knowledge of system testing and quality assurance fundamentals is assumed, but no specific technical background (e.g., UNIX, TCP/IP) is required.

Abstract:

Load & performance currently belong to the top ten on the list of most critical aspects of the credibility for a company, either towards the internal productivity or in the external visibility of the company via websites. But what does Load & Performance mean for the different parties during the life-cycle the application and how effective can we measure them?

The most nagging questions: “How well will our servers cope with high volume of users? Did the design of our back-end architecture meet the “real world” expectations? How do our end-users and customers use our systems?” A well planned and controlled Load & Performance test can provide better answers instead of guessing the probable outcome of these questions

How can Load & Performance testing fit into the Development stage as early as possible and also can it be used in pre-, per, post- production providing a profound proof to managers about the status of the situation? For example, just by extending the amount of simulated users during the load test beyond the expected numbers (called Stress Test), it can really put a controlled stress upon the whole systems, including back-end, network... and provide numbers which can be measured against the business goals and expectations.

This tutorial will get you acquainted with the used terminology and aspects of Load & Performance testing. It will explain to you the different process stages needed to setup a successful load test. During the session you will gain a better know-how of the information requested at meetings to design and architecture the load test with the use of the right measurements, showing the ways of implementation & testing aspects and finally adapting the correct interpretation and correlation of the outcome in a way that you can adequately present the results and reports in meetings.

Tips regarding load test automations, improving the setup of the stage for a load test as well as an insight on script modifications will be provided during the sessions.

A part of the tutorial will consist of a case study including hands-on, which allows you to put your skills into action and learn by doing.

2 Days Workshop Outline:

Fundamentals:

- Terminology / lingo
- Use of a methodology to support the performance testing process
- Understanding how performance testing fits the development process
- Identify performance goals versus business goals and transfer them to objectives and measurable goals for the Performance test
- Gain an understanding of the infrastructure and architecture required for the setting up the stage for the Load & Performance test.
- Using the correct metrics and understanding what scalability and extrapolation means and provide the ability to identify its need.

Understanding

- What types of tests and measurements are needed?
- Setting up the test infrastructure/architecture
- Selecting the right user scenario and the transactions to be simulated including transforming them into a testable test script with the use of variables for the used data What Types of performance tests/models to be run by understanding and Defining Workload models
- Analyze factors affecting the load definition
- Understanding the key measurements: Response times, throughput, page timers versus server busy timers, resource usage, etc. and use extrapolation.
- Automatic tools – how can they help (tips & tricks), tuning and debugging