Chapter 8

Post Test Execution Phase

The phase pertaining to post test execution comprises not only multifaceted activities but is also a tedious task. It is not uncommon to find many testers who normally underestimate the complexity involved in this phase and face an uphill task later, while fine tuning the system for optimum performance. This chapter discusses points arising in the post execution phase by considering:

- Specific test execution scenarios through logs;
- Method/strategy for analysis;
- Results with standard benchmarks;
- Areas for improvement.

Apart from these, the chapter also provides guidelines for performance tuning with a view it will be of help to practitioners who are keen on execution of tests and analyses of results.

The contemporary conventional methodologies overlook the importance of the post execution phase. In the esteemed view of the author, the subject of post execution is as important a phase as any other and demands a skilled person to analyze the results.
Objectives of the Analysis Phase

The importance of the analysis phase is to ensure that the basic criteria of test executions are met. Some of the objectives of the analysis phase are to:

- Check whether all test cycles are executed and conforming according to the test plan.
- Identify script level problems and ensure the script is not a bottleneck for smooth running of the tests.
- Know request/response time of a specific user for a specific query in a normal load.
- Interpret Web server logs, application server logs, and database logs for better understanding of the test runs.
- Identify resource utilization and bottlenecks in resources, if any.
- Isolate excess queue lengths at the server end to assess bottlenecks early.
- Diagnose network traffic, its impact on performance, and find solutions, if required.
- Address code level optimization based on analysis at the end.
- Check whether performance acceptance criteria are met or not by the system.

Setting objectives for the analysis gives proper direction to the test analyst to plan and provide correct solutions on time. The above said objectives could be modified based on the project requirements.

Analysis Process

A well laid out process to validate test results can correctly flush out performance bottlenecks. A well organized analysis helps in justifying the test results and the areas for future performance enhancements. The main outputs of the execution phase are test logs and reports. These are analyzed to isolate bottlenecks based on the strategy and guidelines as shown in Figure 8.1. Test logs play a major role in the analysis. All the test logs must be captured during the execution. Having analyzed test logs, proper strategy must be defined to analyze test results to find bottlenecks and provide solutions. Following proper guidelines helps to analyze faster and arrive at a solution. Various test reports may be required for analysis. Most of the performance test tools provide a large number of test result data. These result data need to be presented properly for better analysis.
A Generic Model for Universal Data Storage and Conversion and Its Web Based Prototypical Implementation
www.igi-global.com/article/generic-model-universal-data-storage/68966?camid=4v1a