Software Performance Report

Rappid app development

Liam

Table of Contents

[Software Performance testing 2](#_Toc42763129)

[Testing types 2](#_Toc42763130)

[Various testing software 3](#_Toc42763131)

[WAPT 3](#_Toc42763132)

[AppOptics 3](#_Toc42763133)

# Software Performance testing

Software performance testing is a general practise performed to gauge how a system performs in terms of stability and responsiveness under a workload. It can also be used to measure, validate or verify attributes of the system, such as scalability, reliability and resource usage.

## Testing types

Below we will briefly go over the types of testing.

* Load testing

Load testing is the simplest test, where the system is put under a certain amount of load e.g., a set amount of online users.

* Stress testing

A stress test is a test used to push the software to its maximum limits and see if it can still operate at hose limits

* Soak testing

A soak test is to see if the system can sustain a continuous expected load, memory utilization is monitored to check for memory leaks.

* Spike testing

Spike testing is done by suddenly increasing or decreasing the load generated by a very large number of users, and observing the behaviour of the system

* Breakpoint testing

Breakpoint testing is like stress testing. An incremental load is applied over time while the system is monitored for predetermined failure conditions. Breakpoint testing is sometimes referred to as Capacity Testing because it can be said to determine the maximum capacity below which the system will perform to its required specifications or Service Level Agreements

* Configuration testing

Rather than testing for performance from a load perspective, tests are created to determine the effects of configuration changes to the system's components on the system's performance and behaviour. A common example would be experimenting with different methods of load-balancing.

* Isolation testing

Isolation testing is not unique to performance testing but involves repeating a test execution that resulted in a system problem.

* Internet testing

This is a relatively new form of performance testing when global applications such as Facebook, Google and Wikipedia, are performance tested from load generators that are placed on the actual target continent whether physical machines or cloud VMs. These tests usually requires an immense amount of preparation and monitoring to be executed successfully.

## Various testing software

Some of the below are various Software performance testing software.

### WAPT

WAPT is a load testing tool for websites

* Create tests using a browser or a mobile application
* Remote, distributed and cloud-based testing
* Server and database performance monitoring
* Flexible error handling and adjustable pass/fail criteria
* Charts with instant test results available at run time
* Customizable test report with over 20 tables
* Support of all major web development frameworks

### AppOptics

AppOptics APM is a performance monitor for many different frameworks and libraries as mentioned below.

* Out-of-the-box support for dozens of frameworks and libraries including Go, Java, .NET, PHP, Ruby, Python, Scala, and Node.js
* Distributed tracing, live code profiling, and exception tracking follow requests across processes, hosts, and data center, providing detailed transaction performance visualization by service and further drill-down to the code—no manual instrumentation required