**Performance Testing steps:**

**Develop the Right Testing Environment**

Examine the software, hardware, and network configuration the performance test is going to be utilizing. Understanding the strengths and weaknesses of the host system is important later on for identifying potential problems. Make adjustments and upgrades to parts of the environment that may be ill-suited for the test. Lastly, ensure the testers are familiar with the tools that will be used to measure performance.

**Identify the Performance Acceptance Criteria**

In this step, your business should ask how many simultaneous users the platform needs to support, and how quickly it needs to respond to those requests. You’ll examine things like resource utilization and platform throughput in this stage of the process.

**Plan and Design Performance Tests**

During the planning and design phase, define how usage is likely to vary among end users, along with scenarios to test that showcase typical visitor use cases. For example, the test may examine the system handling one thousand simultaneous account logins or two thousand product page load rests per minute over a ten minute period. These tests should represent both typical real-world platform traffic loads and traffic spike conditions.

**Set Up the Performance Testing Environment**

During this step, your business will configure and arrange the tools and other resources to perform the test. Additionally, the testing environment needs to be able to measure its own performance to determine if it can accurately run a test that matches the desired performance criteria. This step also includes designing the scripts the testing application will use to simulate user activity.

**Test the Design Implementation**

The next step involves testing the test environment for potential bottleneck problems. If the test servers aren’t capable of generating the number of virtual users required to run the test, the results will not be accurate. Run a pilot performance test to gauge CPU, memory, and network utilization on the test server.

**Run the Test**

All of your prep work is about to pay off: It’s finally time to run the test. While running the test, monitor and record platform performance data for analysis. This information not only identifies whether the infrastructure is capable of handling the traffic load efficiently, but also helps to determine where power should be added to address a growing user base.

**Analyze, Tune, and Retest**

Examine the test results both during and after the test. If the testing platform is experiencing a problem like a CPU or network bottleneck, stop the test and address the issue before repeating the process. Once you have completed test results, analyze, consolidate, and share the information with staff. Use this information to adjust the test to measure different performance levels and to identify ways to improve platform performance. Repeat the test and measure performance improvements to see if the recommended adjustments improve performance.