Performance Testing Terms:

* Vusers or Virtual users
* Response Time
* 90th percentile or 95th percentile
* Throughput: work done per unit time (transactions per second)
* Peak load: max peak load in the entire transactions
* Concurrent users:
* Bottle neck: performance issues which decreases the throughput.
* Correlation: capturing parameters and passing them in subsequent steps
* Parameterization:
* Assertion:
* Think time: wait time between steps inside a transaction.
* Pacing: wait time in between transactions

Types of performance tests:

* Load Test: checks the application’s ability to perform under anticipated user loads. The objective is to identify performance bottlenecks before the software application goes live.
* Endurance test: is done to make sure the software can handle the expected load over a long period of time.
* Scalability Test: The objective of scalability testing is to determine the software application’s effectiveness in “scaling up” to support an increase in user load. It helps plan capacity addition to your software system.
* Stress testing: involves testing an application under extreme workloads to see how it handles high traffic or data processing. The objective is to identify the breaking point of an application.
* Volume Testing: Under Volume Testing large no. of. Data is populated in a database, and the overall software system’s behaviour is monitored. The objective is to check software application’s performance under varying database volumes.

Assertions in Jmeter:

<https://www.blazemeter.com/blog/jmeter-assertions>

The different types of assertions in JMeter include:

* Response Assertions: Used to validate the response body, header, message in test scripts
* Duration Assertions: used to validate the sampler request is processed within given duration.
* Size Assertions : Used to validate the size of response in bytes
* XML Assertions: Used to check xml syntax of response
* HTML Assertions: Used to check html syntax of response
* XPath Assertions: Used to validate response using xpath expressions
* XMLSchema Assertions: Used to check xml schema of response against xml schema provided
* BSF and JSR223 Assertions
* Compare Assertions: he Compare Assertion checks the response content or confirms that the response time of all samplers under the assertion scope are equal
* SMIME Assertions
* Beanshell Assertions: The Beanshell Assertion allows you to perform additional checks on a sampler using Beanshell scripting
* MD5Hex Assertions
* JSON Assertions: Used to check the node in JSON response