SWE 4604

Software Testing and Quality Assurance Lab

Lab 7

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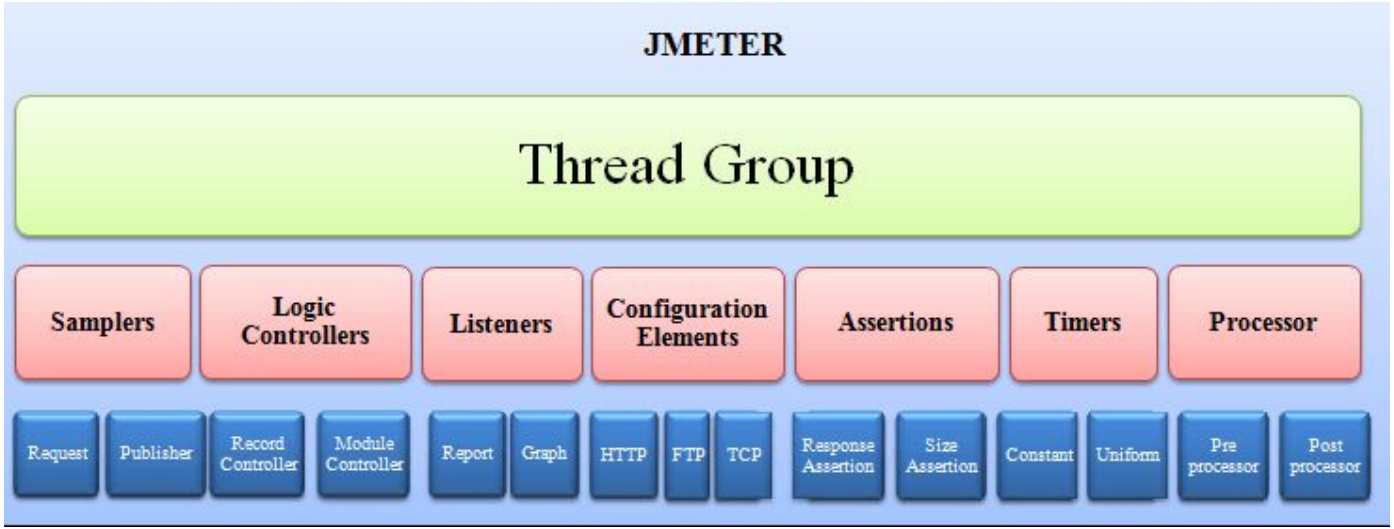
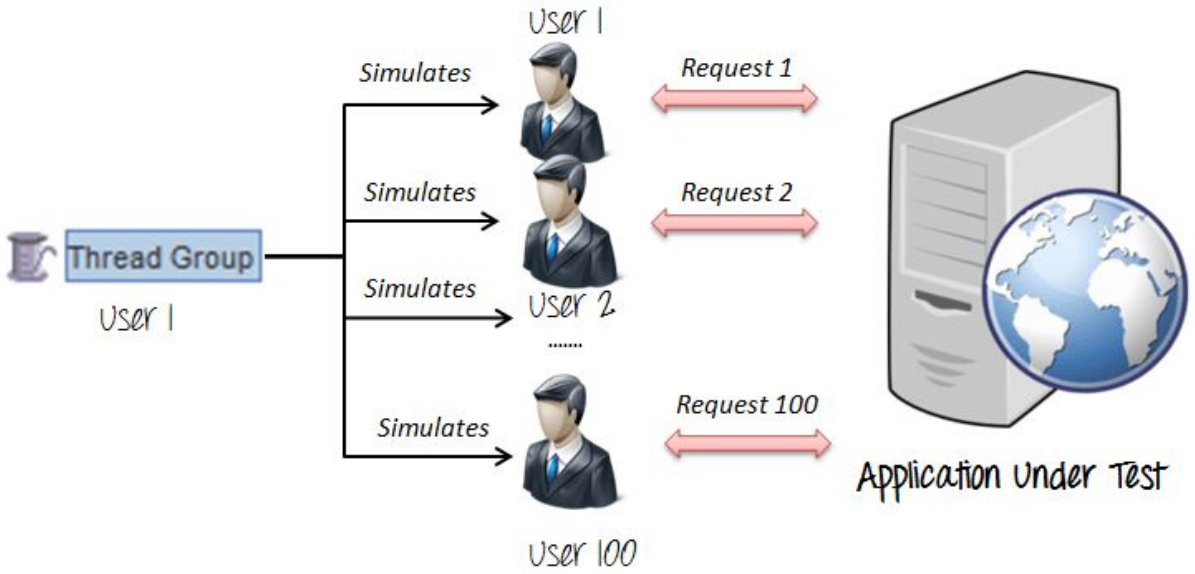
Jmeter

- JMeter is an Open Source testing software.
- It is 100% pure Java application for load and performance testing.
- JMeter is designed to cover various categories of tests, such as load testing, functional testing, performance testing, regression testing, etc.



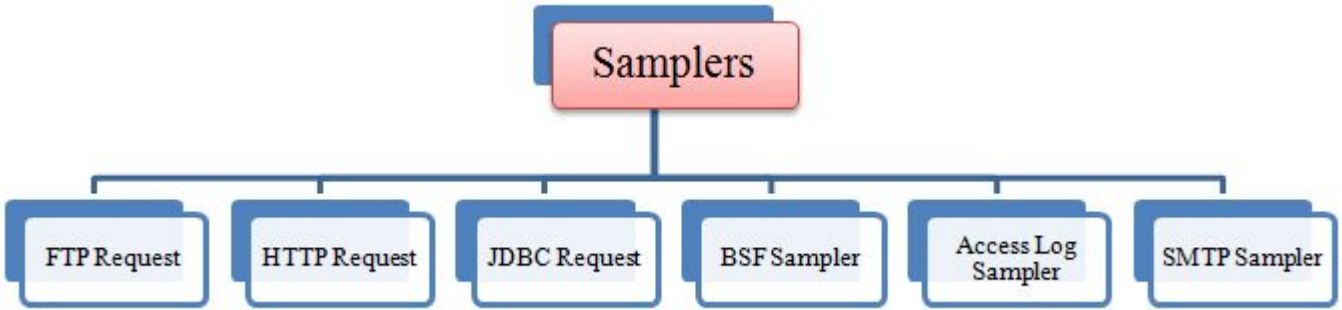
Jmeter Components

Thread Group: Thread Groups is a collection of Threads. Each thread represents one user using the application under test. For example, if you set the number of threads as 100; JMeter will create and simulate 100 user requests to the server under test.



Jmeter Components

Samplers: jMeter supports testing HTTP, FTP, JDBC and many other protocols. This are called samplers.



Jmeter Components

Listeners: shows the results of the test execution. They can show results in a different format such as a tree, table, graph or log file.

Jmeter Components

Configuration Elements: set up defaults and variables for later by samplers.

Logic Controllers: Let you define the order of processing requests in a thread. It lets you control “when” to send a user request to a web server. I.e., simple, random, recording module controllers.

Assertion: Assertion helps to verify that your server under test returns the **expected** results.

Processor: A processor is used to modify the samplers in their scope.

Jmeter Testing Steps

Step 1 - Start Jmeter

Step 2 - Create a Test plan

Step 3 - Create a Thread Group (Users)

Step 4 - Add a Sampler (Http)

Step 5 - Add Listeners

Step 6 – Run Test Plan

Step 7 – Save Test Plan

JMeter Alternatives

Locust

Load Runner