

Apache JMeter

What is JMeter?

- Performance test application
- Build using Java (SDK required)
- Free & Open Source
- Recording
- CLI (command Line Interface)
- Reports

How to Install JMeter?

Windows | Mac | Linux

- **Step 1:** Check Java is installed in your system

```
java -version
```

- **Step 2:** Download JMeter
- **Step 3:** unzip and keep JMeter folder any location
- **Step 4:** start Jmeter

Windows: Jmeter/bin- jmeter.bat

Mac: open Terminal jmeter/bin – jmeter.sh

JMeter Overview: File -> Template -> Building a web test plan

How to First JMeter Test?

- **Step 1:** Start JMeter
- **Step 2:** Create a Test Plan
- **Step 3:** Create a Thread Group (Users)
- **Step 4:** Add a Sampler (HTTP Request)
- **Step 5:** Add Listeners
 - (add View result in Tree,
add View Result in Table)
- **Step 6:** Run the Test

JMeter Listeners (Reporting)

Used for Reporting (Alpha Test)

Listener: elements that gather information about the performance test used to view results / matrices of the test

Latency = time to send first byte from client to server.

- View Results in Table
- View Results in Tree
- Aggregate Report
- Graph Results
- Summary Report
- Simple Data Writer

Assertions

Assertions: Checks on the request / response

- **Response Assertion**
- **Duration Assertion**
- **Size Assertion**
- **HTML Assertion**
- **JSON Assertion**
- **XPATH Assertion**

JMETER HTTP(s) Test Script Recorder

- ✓ How to Record your test on JMeter
- ✓ How to add & use Test Script Recorder
- ✓ How to add & use Recording Controller
- ✓ How to use proxy on Firefox, Chrome & System
- ✓ How to add SSL Certificate
- ✓ How to do Request Filtering
- ✓ How to use Recording Template (from File menu)

New Test Plan -> add -> Thread Group

Non-Test Elements -> HTTP(s) Test Script Recorder

Thread Group -> Add -> Logic Controller -> Recording Controller
(add More Recording Controller & Rename)

HTTP(s) -> Test Plan Creation -> Target Controller

Adding Proxy: Chrome -> three dots -> settings (search proxy) -> set manual proxy
(localhost, 8888)

SSL Certificate: Chrome -> three dots -> settings (search certificate) -> security -> Manage
certificate -> add JMeter Certificate

BlazeMeter

- ✓ Browse BlazeMeter, Sign up and Login
- ✓ Search for BlazeMeter Chrome Extension and browse
- ✓ Click on Install BlazeMeter Chrome Extension
- ✓ Click on add to chrome
- ✓ Open Blazemeter Chrome Extension for Recording
- ✓ Save Recorded data with .jmx extension

Create Result and HTML Report from Command Line and GUI

- ✓ Create a new test plan or use an existing test plan

Test Plan -> Thread Group -> Sampler (HTTP Request) -> set protocol, server name, path (/moodle/, /home/, /notice/) -> Rename HTTP Request

Test plan -> Config Element -> HTTP Cookie Manger, HTTP Cache Manager

Test plan -> Listener -> View Result Tree => Run

Test plan -> Assertions -> Duration Assertion => Save

- ✓ Command Line

jmeter -n -t "location of test plan file" -l "location of result file" -e -o "location of report folder"

jmeter -g "location of result file" -o "location of report folder"