1 - How to install Jmeter Step

- 1.1 Check java is installed on your system java -version
- 1.2 Install java on windows/mac https://java.com/en/download/mac_download.jsp
- 1.3 Install Jmeter http://jmeter.apache.org/download_jmeter.cgi
- 1.4 Keep Jmeter folder at any location
- 1.5 Windows - jmeter/bin - jmeter.bat
- 1.6 Mac - open terminal and run - sh jmeter.sh

2 How to create first Jmeter Test

- 2.1 Start Jmeter run - sh jmeter.sh
- 2.2 Create a TestPlan
- 2.3 Create a Thread Group (Users)
- 2.4 Add a Sampler (Http)
- 2.5 Add Listeners
- 2.6 Run the Test

3 Assertions = checks on the Response

- 3.1 Response Assertion
- 3.2 Duration Assertion
- 3.3 Size Assertion
- 3.4 HTML Assertion
- 3.5 XML Assertion
- 3.6 XPATH Assertion

4 Listeners

- listener : Elements that gather information about the performance test used to view results/metrics of the test
- latency :Time to first byte

- 4.1 View Results in Table
- 4.2 View Results Tree
- 4.3 Aggregate Report
- 4.4 Graph Results
- 4.5 Summary Report
- 4.6 Simple Data Writer

5 Recording Tools

- 5.1 Tools available for recording Jmeter UI test - Chrome Plugin Blazemeter
- 5.2 Record a Test
- 5.3 Export as Jmeter (.jmx) Script
- 5.4 Open the script in Jmeter
- 5.5 Add listeners
- 5.6 Run and validate

6 How to record Login test in JMeter

6.1 add blazemeter plugin to chrome browser
6.2 start blazemeter plugin and login to blazemeter
6.3 Record your scenario - Stop Recording - Export .jmx
6.4 In case option disabled export as json -use this link to convert to jmx http://converter.blazemeter.com/
6.5 Import .jmx file in Jmeter
6.6 Add listeners
6.7 Run and validate

7 Configuration

7.1 Configuration elements can be used to set up defaults and variables for later use by samplers.
7.2 These elements are processed at the start of the scope in which they are found.
7.3 User Defined Variables: Define an initial set of variables
7.4 Counter: The counter config lets the user configure a starting point, a maximum, and the increment
7.5 Random variables: Generate random numeric strings and store them in variable for use later.
7.6 DNS Cache Manager
7.7 HTTP Authorization Manager
7.8 HTTP Cache Manager
7.9 HTTP Cookie Manager
7.10 HTTP Request Defaults
7.11 HTTP Header Manager

8 Create Database Test Plan

8.1 Add mysql-connector-java-8.0.18.jar, postgresql-42.2.9.jar to Jmeter>lib folder
8.2 Restart Jmeter
8.3 Add Thread Group
8.4 Add JDBC Conn Config
8.5 Provide the details of DB Conn String, Username,Password
8.6 JDBC URL Format jdbc:mysql://localhost:3306/dbname?...
8.7 Add JDBC Request >SQL string
8.8 Add Listeners
8.9 Run and validate
8.10 Add a Response Assertion
8.11 Add variable names in JDBC Request
8.12 In Response Assertion add Jmeter Variable and Pattern to Test
8.13 Add Listener Assertion Results
8.14 Run and validate

9 Test FTP upload and download

9.1 Add FTP Request Sampler
9.2 Add FTP connection parameters
FTP URL: ftp.dlptest.com or ftp://ftp.dlptest.com/
FTP User: dlpuser@dlptest.com
Password: SzMf7rTE4pCrf9dV286GuNe4N

9.3 Test a FTP GET and validate (get file from ftp server to local system)

9.4 Test a FTP PUT and validate (transfer file from local to ftp server)

10 Test REST API | SOAP API

10.1 Add HTTP Request Sampler || Add SOAP/XML-RPC Request Sampler

10.2 Add REST API details
https://gorest.co.in/public-api/users

10.3 Run and Validate

11 How to run jmeter from Command Line (non GUI mode)

Why to execute non-gui mode:
-gui - consumes more resources / memory
-gui - not recommended for heavy load testing -command line
-can be integrated with other systems -Jenkins/CI

-n - non gui mode
-t - location of jmeter script
-l - location of result file jmeter
-g - location of csv file
-h - to get help on jmeter commands jmeter
-o - location of output folder
-? - to get information on jmeter command options

11.1 Create Test Plan and save it (and close).

11.2 Open command line and Goto command line - goto jmeter - bin

11.3 Execute command: to create report at the end of the test
sh jmeter
-n
-t /Users/muhittinizgi/Desktop/J_meter/11_HTML_Pages_Test_Plan.jmx
-l /Users/muhittinizgi/Desktop/J_meter/11_results /11_csv_result.csv
-e
-o /Users/muhittinizgi/Desktop/J_meter/11_results

11.4 Analyse HTML (Dashboard) Reports

12 What is a real-world performance test

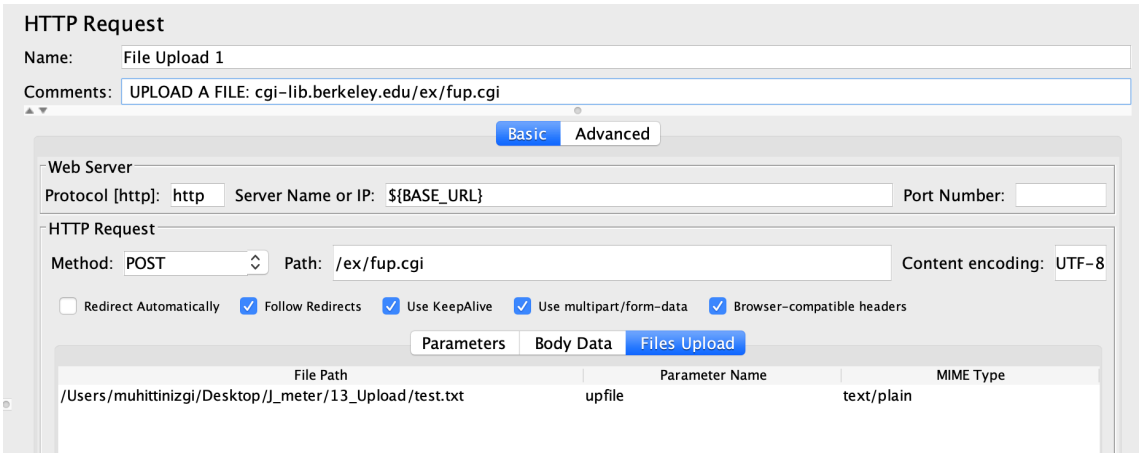
Think Time - simulate actual user actions with timings/delays
Pacing - controlled ramp-up and down of virtual users
- control timing between iterations
- achieve x iterations in y mins/sec

12.1 Add Plugin - Stepping Thread Group

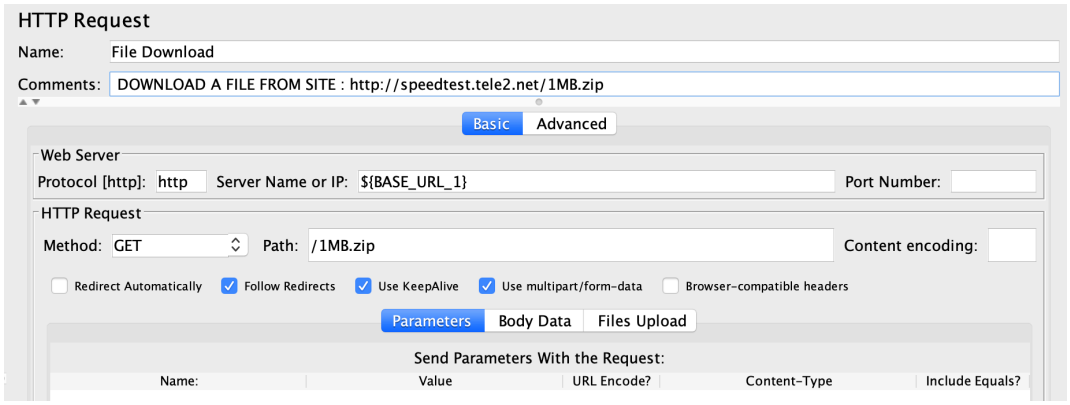
12.2 load with required settings

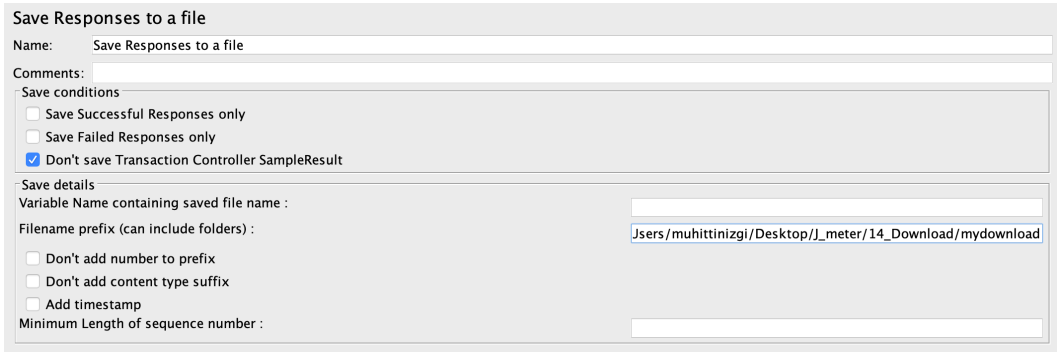
12.3 Run and validate

13 File Upload



14 File Download





15 Timer

Purpose - to pause thread (user) for some time
- to add delay between threads
- to avoid over flooding the server and achieve real time behaviour by pacing the load

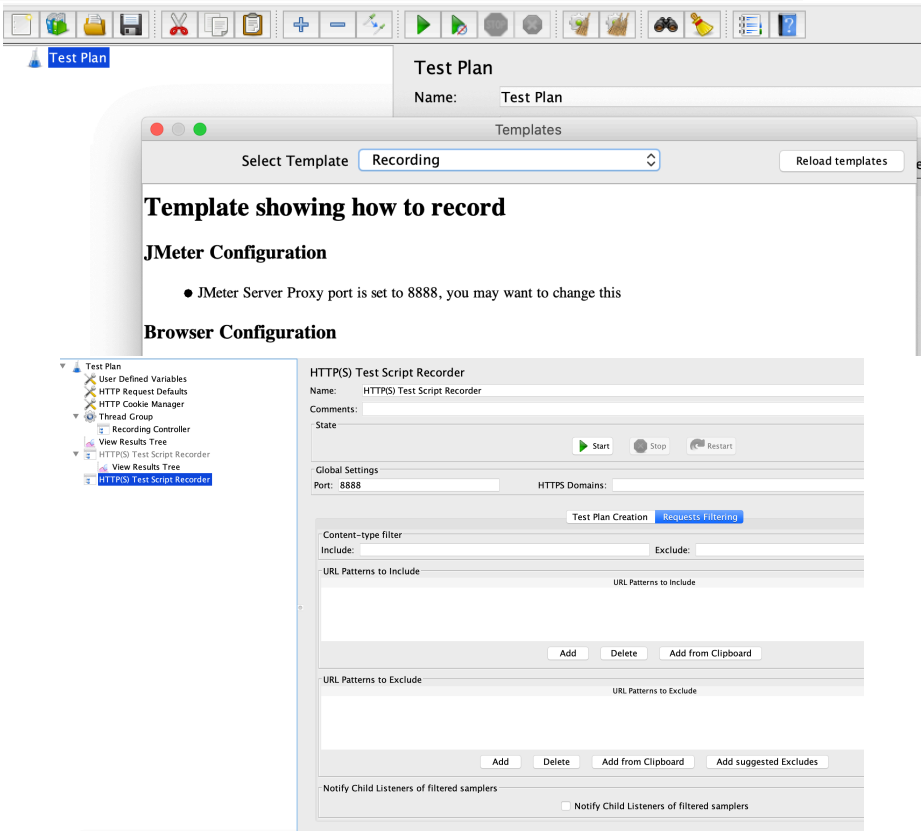
Constant Timer

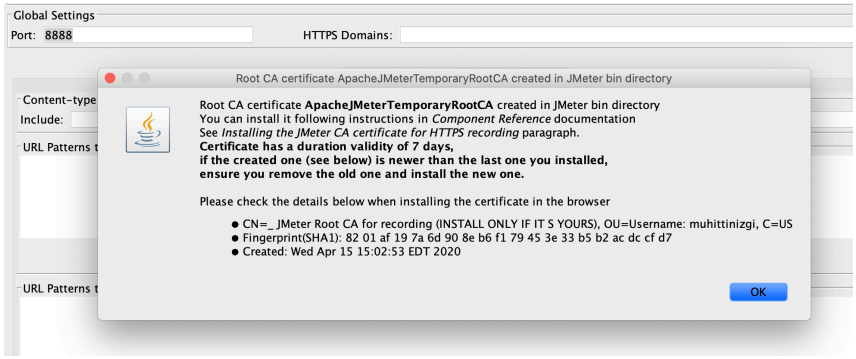
Uniform Random Timer

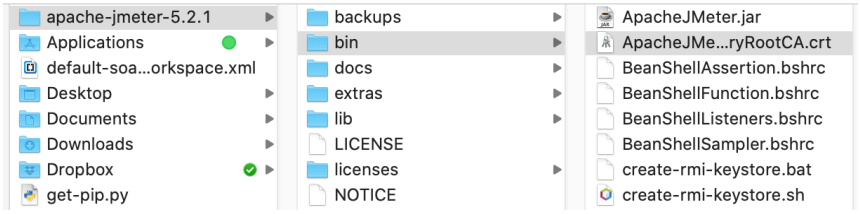
16 How to test mobile web application in JMeter

16.1 Start JMeter on your test machine desktop / laptop

16.2 Template - RECORDING to get a test plan with HTTP(S) Test Script Recorder







16.3 Set Port(8888) for Recording we will set mobile to use the same port

16.4 Click Start and Install Root CA Certificate (install the same on mobile device)

MobilePhone>Settings>Wi-Fi>Advanced>Install certificates>

16.5 Configure mobile phone set IP and PORT

MobilePhone>Settings>Wi-Fi>(ConnectedModem_Long_Press)>Modify>Proxy>Manual>
Proxy hostname: 192.168.1.xxx (computer IP)
Proxy port: 8888
IPv4: DHCP

16.6 Start Recording actions you do on your mobile device should get recorded in JMeter

16.7 Run & Validate