Ex. No:-1

Performance analysis of a web application using Jmeter

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Aim:-

To carry out performance analysis of a web application using Jmeter.
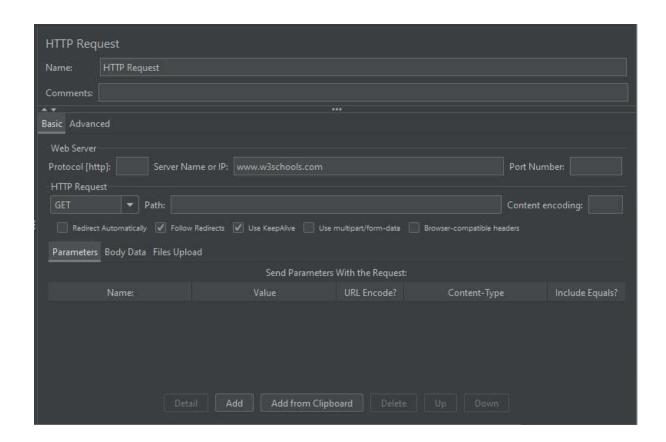
Tools description:-

Jmeter is an open source testing software whi[ch] is a pure Java application for load and performance Testing. Jmeter uses the spring graphical API and hence it can run in any workstation that accepts a Java virtual machine.

Execution steps:-
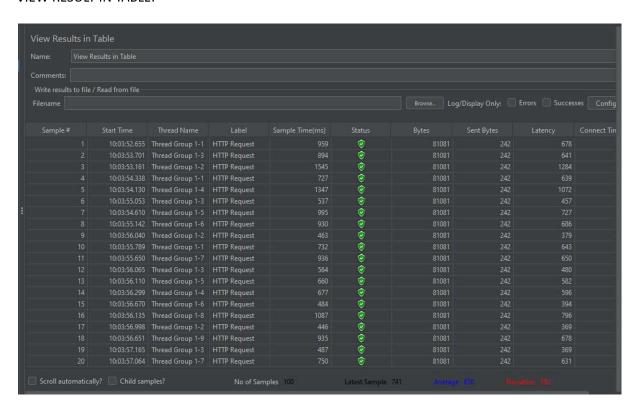
1. Download and start Jmeter

2. Go to apache Jmeter download page and download the distribution based on your machine.

3. Start Jmeter. To run the jmeter go to the folder the Jmeter / bin and run jmeter. bat file Jmeter batch file to start.

Test Plan

Name: w3schools

Comments:

User Defined Variables

Name:	Value

[Detail] [Add] [Add from Clipboard] [Delete] [Up] [Down]

☐ Run Thread Groups consecutively (i.e. one at a time)

☑ Run tearDown Thread Groups after shutdown of main threads

☐ Functional Test Mode (i.e. save Response Data and Sampler Data)

Selecting Functional Test Mode may adversely affect performance.

Add directory or jar to classpath [Browse...] [Delete] [Clear]

Library

Thread Group

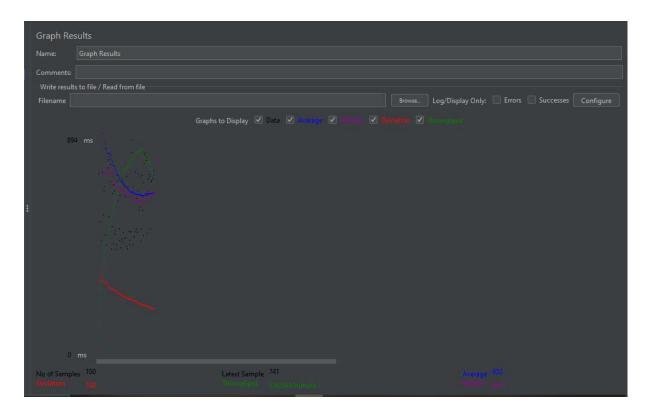Name: Thread Group

Comments:

Action to be taken after a Sampler error

◉ Continue ○ Start Next Thread Loop ○ Stop Thread ○ Stop Test ○ Stop Test Now

Thread Properties

Number of Threads (users): 10

Ramp-up period (seconds): 5

Loop Count: ☐ Infinite 10

☑ Same user on each iteration

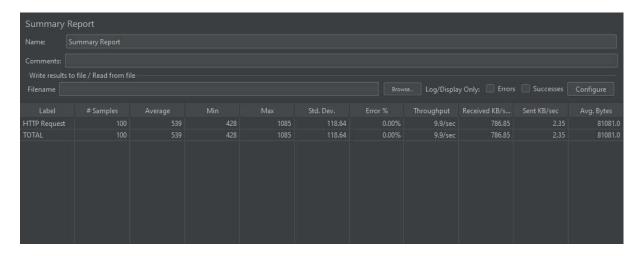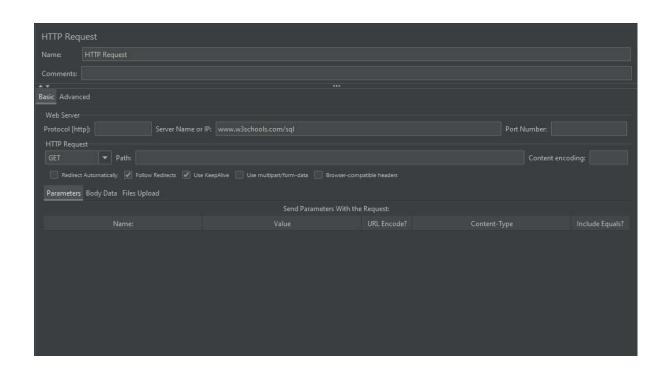☐ Delay Thread creation until needed

☐ Specify Thread lifetime

Duration (seconds):

Startup delay (seconds):

VIEW RESULT IN TABLE:

Sample #	Start Time	Thread Name	Label	Sample Time(ms)	Status	Bytes	Sent Bytes	Latency	Connect Tim
1	10:03:52.655	Thread Group 1-1	HTTP Request	959	✓	81081	242	678	
2	10:03:53.701	Thread Group 1-3	HTTP Request	894	✓	81081	242	641	
3	10:03:53.161	Thread Group 1-2	HTTP Request	1545	✓	81081	242	1284	
4	10:03:54.338	Thread Group 1-1	HTTP Request	727	✓	81081	242	639	
5	10:03:54.130	Thread Group 1-4	HTTP Request	1347	✓	81081	242	1072	
6	10:03:55.053	Thread Group 1-3	HTTP Request	537	✓	81081	242	457	
7	10:03:54.610	Thread Group 1-5	HTTP Request	995	✓	81081	242	727	
8	10:03:55.142	Thread Group 1-6	HTTP Request	930	✓	81081	242	686	
9	10:03:56.040	Thread Group 1-2	HTTP Request	463	✓	81081	242	379	
10	10:03:55.789	Thread Group 1-1	HTTP Request	732	✓	81081	242	643	
11	10:03:55.650	Thread Group 1-7	HTTP Request	936	✓	81081	242	650	
12	10:03:56.065	Thread Group 1-3	HTTP Request	564	✓	81081	242	480	
13	10:03:56.110	Thread Group 1-5	HTTP Request	660	✓	81081	242	582	
14	10:03:56.299	Thread Group 1-4	HTTP Request	677	✓	81081	242	596	
15	10:03:56.670	Thread Group 1-6	HTTP Request	484	✓	81081	242	394	
16	10:03:56.135	Thread Group 1-8	HTTP Request	1087	✓	81081	242	796	
17	10:03:56.998	Thread Group 1-2	HTTP Request	446	✓	81081	242	369	
18	10:03:56.651	Thread Group 1-9	HTTP Request	935	✓	81081	242	678	
19	10:03:57.165	Thread Group 1-3	HTTP Request	487	✓	81081	242	369	
20	10:03:57.064	Thread Group 1-7	HTTP Request	750	✓	81081	242	631	

Scroll automatically? Child samples?   No of Samples 100   Latest Sample 741   Average 650   Deviation 192

GRAPH RESULT:

SUMMARY REPORT:

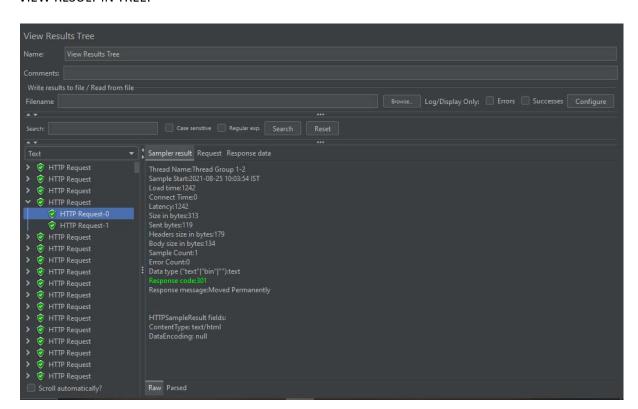| Label	# Samples	Average	Min	Max	Std. Dev.	Error %	Throughput	Received KB/s...	Sent KB/sec	Avg. Bytes
HTTP Request	100	539	428	1085	118.64	0.00%	9.9/sec	786.85	2.35	81081.0
TOTAL	100	539	428	1085	118.64	0.00%	9.9/sec	786.85	2.35	81081.0

VIEW RESULT IN TREE:

RESULT:

Thus, JMeter tool is used as acceptance analysis of web applications and implemented successfully.