

What is Load Testing?

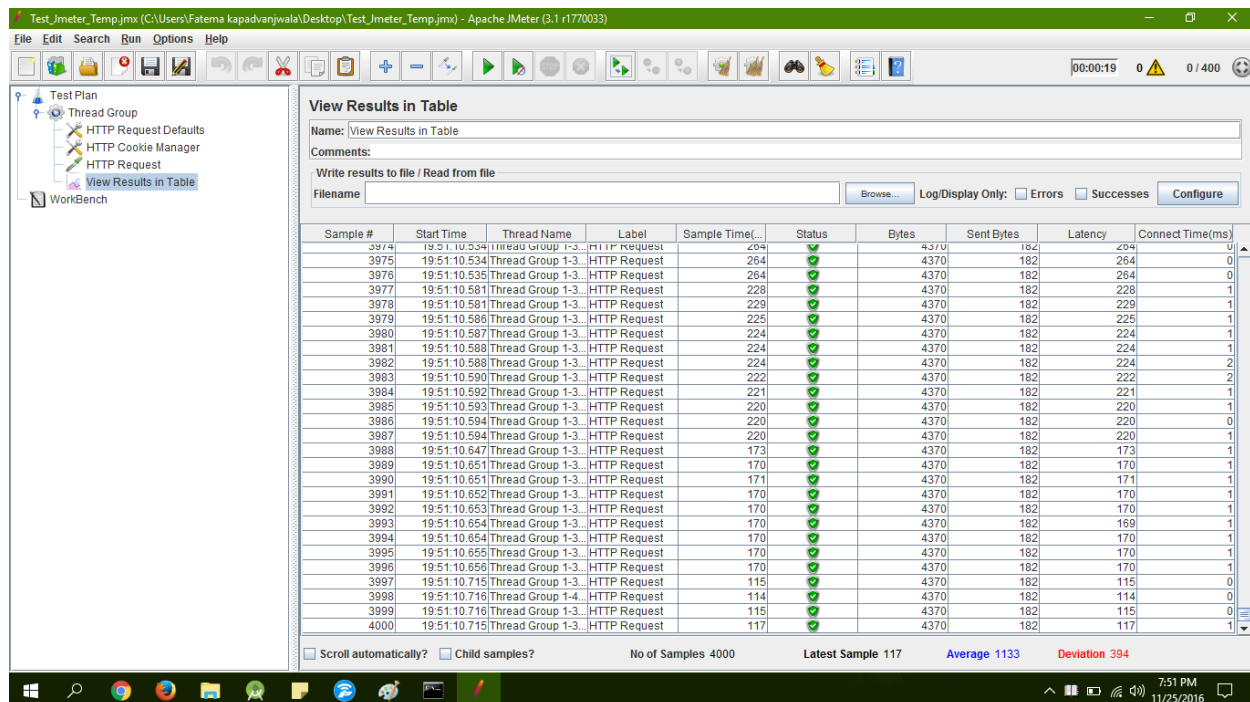
Load testing is the process of putting demand or request on a software system or computing device and measuring its response. Load testing is performed to determine a system's behaviour under both normal and load conditions.

Why Load Testing?

Load testing is a type of non-functional testing and software testing which is conducted to understand the behaviour of the application under a specific expected load. It is performed to determine a system's behaviour under both normal and at peak conditions. It helps to identify the maximum operating capacity of an application as well as any bottlenecks and determine which element is causing degradation. E.g. If the number of users are increased then how much CPU, memory will be consumed, what is the network and bandwidth response time.

Performance Testing

Performance testing is testing that is performed to determine how fast some aspect of a system performs under a particular workload. It can compare two systems to find which performs better. Or it can measure what part of the system or workload causes the system to perform badly.



View Results in Table

Name: View Results in Table

Comments:

Write results to file / Read from file

Filename: Browse...

Log/Display Only: ☐ Errors ☐ Successes

Sample #	Start Time	Thread Name	Label	Sample Time(ms)	Status	Bytes	Sent Bytes	Latency	Connect Time(ms)
3974	19:51:10.534	Thread Group 1-3	HTTP Request	264	✓	4370	182	264	0
3975	19:51:10.534	Thread Group 1-3	HTTP Request	264	✓	4370	182	264	0
3976	19:51:10.535	Thread Group 1-3	HTTP Request	264	✓	4370	182	264	0
3977	19:51:10.581	Thread Group 1-3	HTTP Request	228	✓	4370	182	228	1
3978	19:51:10.581	Thread Group 1-3	HTTP Request	229	✓	4370	182	229	1
3979	19:51:10.586	Thread Group 1-3	HTTP Request	225	✓	4370	182	225	1
3980	19:51:10.587	Thread Group 1-3	HTTP Request	224	✓	4370	182	224	1
3981	19:51:10.588	Thread Group 1-3	HTTP Request	224	✓	4370	182	224	1
3982	19:51:10.588	Thread Group 1-3	HTTP Request	224	✓	4370	182	224	2
3983	19:51:10.590	Thread Group 1-3	HTTP Request	222	✓	4370	182	222	2
3984	19:51:10.592	Thread Group 1-3	HTTP Request	221	✓	4370	182	221	1
3985	19:51:10.593	Thread Group 1-3	HTTP Request	220	✓	4370	182	220	1
3986	19:51:10.594	Thread Group 1-3	HTTP Request	220	✓	4370	182	220	0
3987	19:51:10.594	Thread Group 1-3	HTTP Request	220	✓	4370	182	220	1
3988	19:51:10.647	Thread Group 1-3	HTTP Request	173	✓	4370	182	173	1
3989	19:51:10.651	Thread Group 1-3	HTTP Request	170	✓	4370	182	170	1
3990	19:51:10.651	Thread Group 1-3	HTTP Request	171	✓	4370	182	171	1
3991	19:51:10.652	Thread Group 1-3	HTTP Request	170	✓	4370	182	170	1
3992	19:51:10.653	Thread Group 1-3	HTTP Request	170	✓	4370	182	170	1
3993	19:51:10.654	Thread Group 1-3	HTTP Request	170	✓	4370	182	169	1
3994	19:51:10.654	Thread Group 1-3	HTTP Request	170	✓	4370	182	170	1
3995	19:51:10.655	Thread Group 1-3	HTTP Request	170	✓	4370	182	170	1
3996	19:51:10.656	Thread Group 1-3	HTTP Request	170	✓	4370	182	170	1
3997	19:51:10.715	Thread Group 1-3	HTTP Request	115	✓	4370	182	115	0
3998	19:51:10.716	Thread Group 1-4	HTTP Request	114	✓	4370	182	114	0
3999	19:51:10.716	Thread Group 1-3	HTTP Request	115	✓	4370	182	115	0
4000	19:51:10.715	Thread Group 1-3	HTTP Request	117	✓	4370	182	117	1

☐ Scroll automatically? ☐ Child samples? No of Samples 4000 Latest Sample 117 Average 1133 Deviation 394

Stress testing

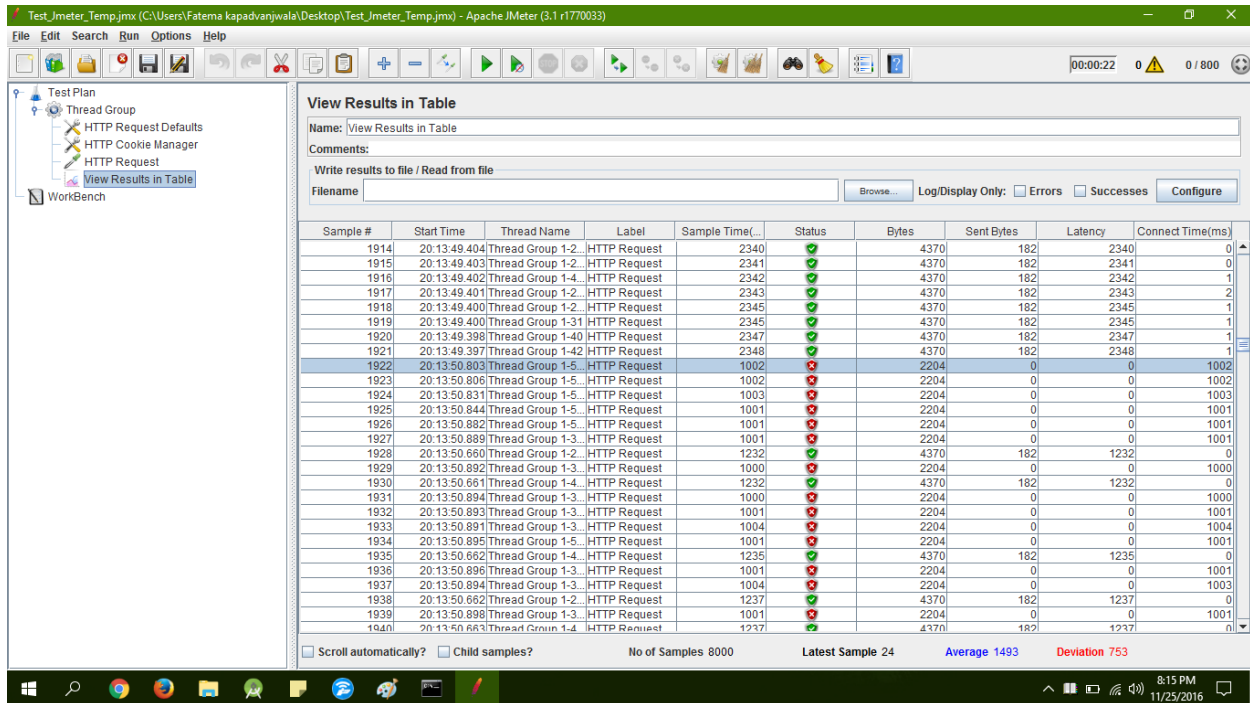
Stress testing is the process of determining the ability of a computer, network, program or device to maintain a certain level of effectiveness under unfavorable conditions. The process can involve quantitative tests done in a lab, such as measuring the frequency of errors or system crashes.

The screenshot displays the Apache JMeter 3.1 r1770033 interface. The left sidebar shows a test plan with a thread group containing an HTTP request. The main window is titled "View Results in Table" and shows a table of test results. The table has columns for Sample #, Start Time, Thread Name, Label, Sample Time, Status, Bytes, Sent Bytes, Latency, and Connect Time(ms). The table contains 24 rows of data, with the last row (Sample # 1040) highlighted in blue. The status column shows a mix of green checkmarks and red X marks. The bottom status bar indicates "No of Samples 8000", "Latest Sample 24", "Average 1493", and "Deviation 753".

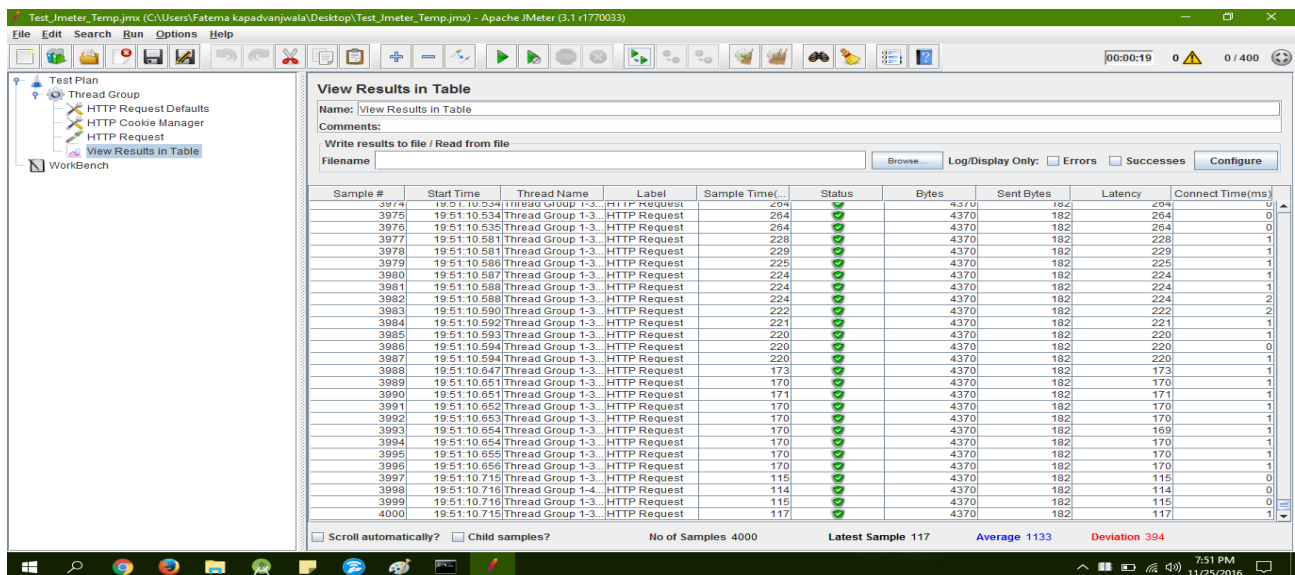
Sample #	Start Time	Thread Name	Label	Sample Time	Status	Bytes	Sent Bytes	Latency	Connect Time(ms)
1914	20:13:49.404	Thread Group 1-2	HTTP Request	2340	✓	4370	182	2340	0
1915	20:13:49.403	Thread Group 1-2	HTTP Request	2341	✓	4370	182	2341	0
1916	20:13:49.402	Thread Group 1-4	HTTP Request	2342	✓	4370	182	2342	1
1917	20:13:49.401	Thread Group 1-2	HTTP Request	2343	✓	4370	182	2343	2
1918	20:13:49.400	Thread Group 1-2	HTTP Request	2345	✓	4370	182	2345	1
1919	20:13:49.400	Thread Group 1-31	HTTP Request	2345	✓	4370	182	2345	1
1920	20:13:49.398	Thread Group 1-40	HTTP Request	2347	✓	4370	182	2347	1
1921	20:13:49.397	Thread Group 1-42	HTTP Request	2348	✓	4370	182	2348	1
1922	20:13:50.803	Thread Group 1-5	HTTP Request	1002	✗	2204	0	0	1002
1923	20:13:50.806	Thread Group 1-5	HTTP Request	1002	✗	2204	0	0	1002
1924	20:13:50.831	Thread Group 1-5	HTTP Request	1003	✗	2204	0	0	1003
1925	20:13:50.844	Thread Group 1-5	HTTP Request	1001	✗	2204	0	0	1001
1926	20:13:50.882	Thread Group 1-5	HTTP Request	1001	✗	2204	0	0	1001
1927	20:13:50.889	Thread Group 1-3	HTTP Request	1001	✗	2204	0	0	1001
1928	20:13:50.660	Thread Group 1-2	HTTP Request	1232	✓	4370	182	1232	0
1929	20:13:50.892	Thread Group 1-3	HTTP Request	1000	✗	2204	0	0	1000
1930	20:13:50.661	Thread Group 1-4	HTTP Request	1232	✓	4370	182	1232	0
1931	20:13:50.894	Thread Group 1-3	HTTP Request	1000	✗	2204	0	0	1000
1932	20:13:50.893	Thread Group 1-3	HTTP Request	1001	✗	2204	0	0	1001
1933	20:13:50.891	Thread Group 1-3	HTTP Request	1004	✗	2204	0	0	1004
1934	20:13:50.895	Thread Group 1-5	HTTP Request	1001	✗	2204	0	0	1001
1935	20:13:50.662	Thread Group 1-4	HTTP Request	1235	✓	4370	182	1235	0
1936	20:13:50.896	Thread Group 1-3	HTTP Request	1001	✗	2204	0	0	1001
1937	20:13:50.894	Thread Group 1-3	HTTP Request	1004	✗	2204	0	0	1003
1938	20:13:50.862	Thread Group 1-2	HTTP Request	1237	✓	4370	182	1237	0
1939	20:13:50.898	Thread Group 1-3	HTTP Request	1001	✗	2204	0	0	1001
1940	20:13:50.663	Thread Group 1-4	HTTP Request	1237	✓	4370	182	1237	0

Load testing using JMeter

Login Module: - Stress Testing



Login Module:- Performance Testing



No. of Threads	Result
400	Success
800	Failure

Register Module: - Stress Testing

Test_Jmeter_Temp.jmx (C:\Users\Fatema kapadvanjwala\Desktop\Test_Jmeter_Temp.jmx) - Apache JMeter (3.1 r1770033)

File Edit Search Run Options Help

00:01:12 0 397 / 400

Test Plan
Thread Group
HTTP Request Defaults
HTTP Cookie Manager
HTTP Request
View Results in Table
WorkBench

View Results in Table

Name: View Results in Table

Comments:

Write results to file / Read from file

Filename: Browse... Log/Display Only: ☐ Errors ☐ Successes

Sample #	Start Time	Thread Name	Label	Sample Time(ms)	Status	Bytes	Sent Bytes	Latency	Connect Time...
268	21:54:25.045	Thread Group 1-...	HTTP Request	1070	✓	4226	184	482	0
269	21:54:25.338	Thread Group 1-...	HTTP Request	1810	✓	4227	184	1810	155
270	21:54:25.364	Thread Group 1-...	HTTP Request	1785	✓	4227	184	1785	156
271	21:54:25.292	Thread Group 1-...	HTTP Request	1876	✓	4227	184	798	169
272	21:54:25.750	Thread Group 1-...	HTTP Request	1466	✓	4227	184	1298	140
273	21:54:25.859	Thread Group 1-...	HTTP Request	1358	✓	4227	184	1327	132
274	21:54:25.910	Thread Group 1-...	HTTP Request	1307	✓	4227	184	1307	135
275	21:54:25.924	Thread Group 1-...	HTTP Request	1295	✓	4227	184	1295	148
276	21:54:25.802	Thread Group 1-...	HTTP Request	1433	✓	4227	184	1433	136
277	21:54:25.550	Thread Group 1-...	HTTP Request	1697	✓	4226	184	376	0
278	21:54:22.169	Thread Group 1-6	HTTP Request	5080	✓	4226	184	1124	0
279	21:54:24.611	Thread Group 1-...	HTTP Request	2640	✓	4227	184	713	166
280	21:54:24.567	Thread Group 1-...	HTTP Request	2698	✓	4227	184	2096	170
281	21:54:24.722	Thread Group 1-...	HTTP Request	2561	✓	4227	184	2014	158
282	21:54:25.834	Thread Group 1-...	HTTP Request	1450	✓	4227	184	1450	144
283	21:54:25.827	Thread Group 1-...	HTTP Request	1469	✓	4226	184	979	0
284	21:54:22.753	Thread Group 1-...	HTTP Request	4544	✓	4227	184	4435	164
285	21:54:26.249	Thread Group 1-...	HTTP Request	1054	✓	4226	184	487	0
286	21:54:25.564	Thread Group 1-...	HTTP Request	1743	✓	4227	184	697	167
287	21:54:25.785	Thread Group 1-...	HTTP Request	1530	✓	4227	184	1362	140
288	21:54:24.296	Thread Group 1-...	HTTP Request	3047	✓	4227	184	1289	218
289	21:54:24.471	Thread Group 1-...	HTTP Request	2879	✓	4227	184	2178	1532
290	21:54:26.341	Thread Group 1-...	HTTP Request	1015	✗	2272	0	0	0
291	21:54:24.347	Thread Group 1-...	HTTP Request	3021	✓	4227	184	3021	204
292	21:54:25.512	Thread Group 1-...	HTTP Request	1892	✓	4227	184	1723	182
293	21:54:24.389	Thread Group 1-...	HTTP Request	3016	✓	4226	184	370	0
294	21:54:24.747	Thread Group 1-...	HTTP Request	2650	✓	4227	184	1248	202

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Test_Jmeter_Temp.jmx (C:\Users\Fatema kapadvanjwala\Desktop\Test_Jmeter_Temp.jmx) - Apache JMeter (3.1 r1770033)

File Edit Search Run Options Help

00:00:54 0 792 / 800

Test Plan
Thread Group
HTTP Request Defaults
HTTP Cookie Manager
HTTP Request
View Results in Table
WorkBench

View Results in Table

Name: View Results in Table

Comments:

Write results to file / Read from file

Filename: Browse... Log/Display Only: ☐ Errors ☐ Successes

Sample #	Start Time	Thread Name	Label	Sample Time(ms)	Status	Bytes	Sent Bytes	Latency	Connect Time...
325	21:57:19.767	Thread Group 1-...	HTTP Request	16403	✓	8382	184	13332	9167
326	21:57:24.107	Thread Group 1-...	HTTP Request	12149	✓	8382	184	5626	1593
327	21:57:29.855	Thread Group 1-...	HTTP Request	6423	✓	8382	184	5035	3189
328	21:57:31.674	Thread Group 1-...	HTTP Request	4663	✓	8382	184	4416	3170
329	21:57:19.487	Thread Group 1-...	HTTP Request	16884	✓	8382	184	5137	158
330	21:57:23.457	Thread Group 1-...	HTTP Request	12937	✓	8382	184	4740	225
331	21:57:17.250	Thread Group 1-...	HTTP Request	19180	✓	8382	184	6522	5440
332	21:57:23.432	Thread Group 1-...	HTTP Request	12989	✓	8382	184	4435	227
333	21:57:28.900	Thread Group 1-...	HTTP Request	7562	✓	8382	184	3774	3233
334	21:57:24.004	Thread Group 1-...	HTTP Request	12474	✓	8382	184	10183	9178
335	21:57:23.165	Thread Group 1-...	HTTP Request	13414	✓	8382	184	4428	3176
336	21:57:24.999	Thread Group 1-...	HTTP Request	11608	✓	8382	184	9824	9215
337	21:57:15.730	Thread Group 1-...	HTTP Request	21001	✗	2206	0	0	21001
338	21:57:15.734	Thread Group 1-...	HTTP Request	21002	✗	2206	0	0	21002
339	21:57:16.358	Thread Group 1-...	HTTP Request	20433	✓	8382	184	3434	198
340	21:57:19.664	Thread Group 1-...	HTTP Request	17145	✓	8382	184	5758	157
341	21:57:33.508	Thread Group 1-...	HTTP Request	3324	✓	8382	184	1856	146
342	21:57:25.192	Thread Group 1-...	HTTP Request	11649	✓	8382	184	3510	201
343	21:57:27.437	Thread Group 1-...	HTTP Request	9416	✓	8382	184	4265	3204
344	21:57:24.138	Thread Group 1-...	HTTP Request	12794	✓	8382	184	6002	3179
345	21:57:32.282	Thread Group 1-...	HTTP Request	4661	✓	8382	184	1202	121
346	21:57:23.207	Thread Group 1-...	HTTP Request	13819	✓	8382	184	9724	9159
347	21:57:36.278	Thread Group 1-...	HTTP Request	795	✓	8382	184	770	198
348	21:57:21.600	Thread Group 1-...	HTTP Request	15501	✓	8382	184	9052	5492
349	21:57:16.104	Thread Group 1-...	HTTP Request	21003	✗	2206	0	0	21003
350	21:57:24.031	Thread Group 1-...	HTTP Request	13087	✓	8382	184	10009	9171
351	21:57:18.428	Thread Group 1-...	HTTP Request	21000	✗	2206	0	0	21000

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9:58 PM 11/25/2016

No. of Threads	Result
400	Success
800	Failure