

IT314 - Software Engineering

Prof : Saurabh Tiwari

Group 9 : Pull Panda

(AI-powered Pull Request Reviewer)

Non-Functional testing (Dashboard)

Load Testing

Dashboard:

The load test was successfully completed by the PR Reviewer Dashboard. With an average response time of only 4 ms, all 4,290 requests were processed error-free. These results show that the application is very responsive and stable under typical operational load, exhibiting excellent performance, low latency, and zero failure rate.



Dashboard.jmx (C:\Users\Yash Panchal\Downloads\apache-jmeter-5.6.3\apache-jmeter-5.6.3\bin\Dashboard.jmx) - Apache JMeter (5.6.3)

File Edit Search Run Options Tools Help

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

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)
66	00:21:32.814	Thread Group 1-22	Dashboard	7	✓	1976	116	7	0
67	00:21:33.134	Thread Group 1-23	Dashboard	8	✓	1976	116	8	3
68	00:21:33.143	Thread Group 1-23	Dashboard	4	✓	1976	116	4	0
69	00:21:33.147	Thread Group 1-23	Dashboard	4	✓	1976	116	4	0
70	00:21:33.467	Thread Group 1-24	Dashboard	7	✓	1976	116	7	2
71	00:21:33.474	Thread Group 1-24	Dashboard	5	✓	1976	116	5	0
72	00:21:33.479	Thread Group 1-24	Dashboard	5	✓	1976	116	5	0
73	00:21:33.799	Thread Group 1-25	Dashboard	9	✓	1976	116	8	2
74	00:21:33.809	Thread Group 1-25	Dashboard	4	✓	1976	116	4	0
75	00:21:33.814	Thread Group 1-25	Dashboard	4	✓	1976	116	4	0
76	00:21:34.137	Thread Group 1-26	Dashboard	6	✓	1976	116	6	2
77	00:21:34.144	Thread Group 1-26	Dashboard	6	✓	1976	116	6	0
78	00:21:34.150	Thread Group 1-26	Dashboard	5	✓	1976	116	5	0
79	00:21:34.465	Thread Group 1-27	Dashboard	6	✓	1976	116	6	2
80	00:21:34.472	Thread Group 1-27	Dashboard	4	✓	1976	116	4	0
81	00:21:34.476	Thread Group 1-27	Dashboard	5	✓	1976	116	4	0
82	00:21:34.797	Thread Group 1-28	Dashboard	8	✓	1976	116	8	4
83	00:21:34.805	Thread Group 1-28	Dashboard	4	✓	1976	116	4	0
84	00:21:34.810	Thread Group 1-28	Dashboard	3	✓	1976	116	3	0
85	00:21:35.130	Thread Group 1-29	Dashboard	10	✓	1976	116	10	3
86	00:21:35.141	Thread Group 1-29	Dashboard	9	✓	1976	116	9	0
87	00:21:35.151	Thread Group 1-29	Dashboard	10	✓	1976	116	10	0
88	00:21:35.467	Thread Group 1-30	Dashboard	6	✓	1976	116	6	2
89	00:21:35.474	Thread Group 1-30	Dashboard	5	✓	1976	116	5	0
90	00:21:35.480	Thread Group 1-30	Dashboard	4	✓	1976	116	4	0

☐ Scroll automatically? ☐ Child samples? No of Samples 90 Latest Sample 4 Average 4 Deviation 4

00:00:09 0 0/30

Dashboard.jmx (C:\Users\Yash Panchal\Downloads\apache-jmeter-5.6.3\apache-jmeter-5.6.3\bin\Dashboard.jmx) - Apache JMeter (5.6.3)

File Edit Search Run Options Tools Help

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

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)
366	00:26:18.577	Thread Group 1-92	Dashboard	4	✓	1976	116	4	0
367	00:26:18.063	Thread Group 1-93	Dashboard	7	✓	1976	116	7	3
368	00:26:18.071	Thread Group 1-93	Dashboard	5	✓	1976	116	5	0
369	00:26:18.077	Thread Group 1-93	Dashboard	4	✓	1976	116	4	0
370	00:26:18.567	Thread Group 1-94	Dashboard	6	✓	1976	116	6	1
371	00:26:18.574	Thread Group 1-94	Dashboard	3	✓	1976	116	3	0
372	00:26:18.577	Thread Group 1-94	Dashboard	3	✓	1976	116	3	0
373	00:26:19.063	Thread Group 1-95	Dashboard	7	✓	1976	116	7	3
374	00:26:19.071	Thread Group 1-95	Dashboard	4	✓	1976	116	4	0
375	00:26:19.075	Thread Group 1-95	Dashboard	4	✓	1976	116	4	0
376	00:26:19.561	Thread Group 1-96	Dashboard	6	✓	1976	116	6	2
377	00:26:19.568	Thread Group 1-96	Dashboard	3	✓	1976	116	3	0
378	00:26:19.572	Thread Group 1-96	Dashboard	4	✓	1976	116	4	0
379	00:26:20.060	Thread Group 1-97	Dashboard	8	✓	1976	116	8	3
380	00:26:20.068	Thread Group 1-97	Dashboard	5	✓	1976	116	5	0
381	00:26:20.073	Thread Group 1-97	Dashboard	4	✓	1976	116	4	0
382	00:26:20.565	Thread Group 1-98	Dashboard	8	✓	1976	116	8	3
383	00:26:20.574	Thread Group 1-98	Dashboard	5	✓	1976	116	5	0
384	00:26:20.580	Thread Group 1-98	Dashboard	5	✓	1976	116	5	0
385	00:26:21.062	Thread Group 1-99	Dashboard	8	✓	1976	116	8	3
386	00:26:21.071	Thread Group 1-99	Dashboard	4	✓	1976	116	4	0
387	00:26:21.076	Thread Group 1-99	Dashboard	3	✓	1976	116	3	0
388	00:26:21.562	Thread Group 1-1...	Dashboard	6	✓	1976	116	6	2
389	00:26:21.569	Thread Group 1-1...	Dashboard	4	✓	1976	116	4	0
390	00:26:21.573	Thread Group 1-1...	Dashboard	4	✓	1976	116	4	0

☐ Scroll automatically? ☐ Child samples? No of Samples 390 Latest Sample 4 Average 3 Deviation 4

00:00:49 0 0/100

Dashboard.jmx (C:\Users\Yash Panchal\Downloads\apache-jmeter-5.6.3\apache-jmeter-5.6.3\bin\Dashboard.jmx) - Apache JMeter (5.6.3)

File Edit Search Run Options Tools Help

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

View Results in Table

Name: View Results in Table

Comments:

Write results to file / Read from file

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

Sample #	Start Time	Thread Name	Label	Sample Time(ms)	Status	Bytes	Sent Bytes	Latency	Connect Time(ms)
391	00:28:34.579	Thread Group 1-1	Dashboard	70	✓	1976	116	70	3
392	00:28:34.649	Thread Group 1-1	Dashboard	14	✓	1976	116	14	0
393	00:28:34.663	Thread Group 1-1	Dashboard	3	✓	1976	116	3	0
394	00:28:34.911	Thread Group 1-2	Dashboard	8	✓	1976	116	8	3
395	00:28:34.919	Thread Group 1-2	Dashboard	5	✓	1976	116	5	0
396	00:28:34.924	Thread Group 1-2	Dashboard	5	✓	1976	116	5	0
397	00:28:35.245	Thread Group 1-3	Dashboard	7	✓	1976	116	7	2
398	00:28:35.252	Thread Group 1-3	Dashboard	5	✓	1976	116	5	0
399	00:28:35.257	Thread Group 1-3	Dashboard	4	✓	1976	116	4	0
400	00:28:35.577	Thread Group 1-4	Dashboard	7	✓	1976	116	7	3
401	00:28:35.585	Thread Group 1-4	Dashboard	4	✓	1976	116	4	0
402	00:28:35.589	Thread Group 1-4	Dashboard	3	✓	1976	116	3	0
403	00:28:35.911	Thread Group 1-5	Dashboard	7	✓	1976	116	7	2
404	00:28:35.918	Thread Group 1-5	Dashboard	4	✓	1976	116	4	0
405	00:28:35.922	Thread Group 1-5	Dashboard	4	✓	1976	116	4	0
406	00:28:36.243	Thread Group 1-6	Dashboard	7	✓	1976	116	7	2
407	00:28:36.251	Thread Group 1-6	Dashboard	4	✓	1976	116	4	0
408	00:28:36.255	Thread Group 1-6	Dashboard	5	✓	1976	116	5	0
409	00:28:36.576	Thread Group 1-7	Dashboard	5	✓	1976	116	5	2
410	00:28:36.582	Thread Group 1-7	Dashboard	3	✓	1976	116	3	0
411	00:28:36.586	Thread Group 1-7	Dashboard	3	✓	1976	116	3	0
412	00:28:36.909	Thread Group 1-8	Dashboard	6	✓	1976	116	6	2
413	00:28:36.915	Thread Group 1-8	Dashboard	5	✓	1976	116	5	0
414	00:28:36.920	Thread Group 1-8	Dashboard	5	✓	1976	116	5	0
415	00:28:37.243	Thread Group 1-9	Dashboard	7	✓	1976	116	7	3

☐ Scroll automatically? ☐ Child samples? No of Samples: 1250 Latest Sample: 5 Average: 3 Deviation: 3

16° Search 19-11-2025 00:30

Dashboard.jmx (C:\Users\Yash Panchal\Downloads\apache-jmeter-5.6.3\apache-jmeter-5.6.3\bin\Dashboard.jmx) - Apache JMeter (5.6.3)

File Edit Search Run Options Tools Help

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

View Results in Table

Name: View Results in Table

Comments:

Write results to file / Read from file

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

Sample #	Start Time	Thread Name	Label	Sample Time(ms)	Status	Bytes	Sent Bytes	Latency	Connect Time(ms)
4266	00:40:06.584	Thread Group 1-9...	Dashboard	3	✓	1976	116	3	0
4267	00:40:06.555	Thread Group 1-9...	Dashboard	8	✓	1976	116	8	3
4268	00:40:06.563	Thread Group 1-9...	Dashboard	4	✓	1976	116	4	0
4269	00:40:06.567	Thread Group 1-9...	Dashboard	4	✓	1976	116	4	0
4270	00:40:07.055	Thread Group 1-9...	Dashboard	5	✓	1976	116	5	2
4271	00:40:07.060	Thread Group 1-9...	Dashboard	4	✓	1976	116	4	0
4272	00:40:07.064	Thread Group 1-9...	Dashboard	3	✓	1976	116	3	0
4273	00:40:07.554	Thread Group 1-9...	Dashboard	6	✓	1976	116	6	2
4274	00:40:07.560	Thread Group 1-9...	Dashboard	4	✓	1976	116	4	0
4275	00:40:07.564	Thread Group 1-9...	Dashboard	4	✓	1976	116	4	0
4276	00:40:08.055	Thread Group 1-9...	Dashboard	5	✓	1976	116	5	2
4277	00:40:08.061	Thread Group 1-9...	Dashboard	3	✓	1976	116	3	0
4278	00:40:08.064	Thread Group 1-9...	Dashboard	3	✓	1976	116	3	0
4279	00:40:08.555	Thread Group 1-9...	Dashboard	7	✓	1976	116	7	2
4280	00:40:08.562	Thread Group 1-9...	Dashboard	4	✓	1976	116	4	0
4281	00:40:08.566	Thread Group 1-9...	Dashboard	3	✓	1976	116	3	0
4282	00:40:09.054	Thread Group 1-9...	Dashboard	6	✓	1976	116	6	2
4283	00:40:09.060	Thread Group 1-9...	Dashboard	3	✓	1976	116	3	0
4284	00:40:09.063	Thread Group 1-9...	Dashboard	3	✓	1976	116	3	0
4285	00:40:09.555	Thread Group 1-9...	Dashboard	5	✓	1976	116	5	2
4286	00:40:09.560	Thread Group 1-9...	Dashboard	4	✓	1976	116	4	0
4287	00:40:09.564	Thread Group 1-9...	Dashboard	3	✓	1976	116	3	0
4288	00:40:10.054	Thread Group 1-1...	Dashboard	6	✓	1976	116	6	2
4289	00:40:10.060	Thread Group 1-1...	Dashboard	3	✓	1976	116	3	0
4290	00:40:10.063	Thread Group 1-1...	Dashboard	3	✓	1976	116	3	0

☐ Scroll automatically? ☐ Child samples? No of Samples: 4290 Latest Sample: 3 Average: 4 Deviation: 2

Search 19-11-2025 00:40

Pull Requests:

The “Pull Requests” successfully handled the applied load of 900 requests without any failure. The module exhibited excellent performance, maintaining an average response time of 11 ms and zero error rate. These results suggest that the Pull Requests functionality is highly efficient, stable, and well-optimized for concurrent user operations.



Pull Requests.jmx (C:\Users\Yash Panchal\Downloads\apache-jmeter-5.6.3\apache-jmeter-5.6.3\bin\Pull Requests.jmx) - Apache JMeter (5.6.3)

File Edit Search Run Options Tools Help

00:01:40 0 0/300

Test Plan

- Thread Group
 - HTTP Request Defaults
 - HTTP Cookie Manager
 - HTTP Request
 - View Results in Table**

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)
876	01:16:58.883	Thread Group 1-2...	HTTP Request	12	✓	1976	129	12	0
877	01:16:58.964	Thread Group 1-2...	HTTP Request	28	✓	1976	129	28	14
878	01:16:58.992	Thread Group 1-2...	HTTP Request	13	✓	1976	129	13	0
879	01:16:59.006	Thread Group 1-2...	HTTP Request	18	✓	1976	129	18	0
880	01:16:59.295	Thread Group 1-2...	HTTP Request	18	✓	1976	129	18	5
881	01:16:59.314	Thread Group 1-2...	HTTP Request	10	✓	1976	129	10	0
882	01:16:59.325	Thread Group 1-2...	HTTP Request	11	✓	1976	129	11	0
883	01:16:59.628	Thread Group 1-2...	HTTP Request	16	✓	1976	129	16	4
884	01:16:59.644	Thread Group 1-2...	HTTP Request	12	✓	1976	129	12	0
885	01:16:59.656	Thread Group 1-2...	HTTP Request	12	✓	1976	129	12	0
886	01:16:59.974	Thread Group 1-2...	HTTP Request	17	✓	1976	129	17	4
887	01:16:59.991	Thread Group 1-2...	HTTP Request	15	✓	1976	129	15	0
888	01:17:00.006	Thread Group 1-2...	HTTP Request	20	✓	1976	129	20	0
889	01:17:00.290	Thread Group 1-2...	HTTP Request	16	✓	1976	129	16	4
890	01:17:00.307	Thread Group 1-2...	HTTP Request	12	✓	1976	129	12	0
891	01:17:00.319	Thread Group 1-2...	HTTP Request	12	✓	1976	129	12	0
892	01:17:00.625	Thread Group 1-2...	HTTP Request	17	✓	1976	129	17	4
893	01:17:00.643	Thread Group 1-2...	HTTP Request	13	✓	1976	129	13	0
894	01:17:00.657	Thread Group 1-2...	HTTP Request	12	✓	1976	129	12	0
895	01:17:00.956	Thread Group 1-2...	HTTP Request	13	✓	1976	129	13	4
896	01:17:00.969	Thread Group 1-2...	HTTP Request	11	✓	1976	129	11	0
897	01:17:00.981	Thread Group 1-2...	HTTP Request	11	✓	1976	129	11	0
898	01:17:01.290	Thread Group 1-3...	HTTP Request	19	✓	1976	129	19	5
899	01:17:01.309	Thread Group 1-3...	HTTP Request	13	✓	1976	129	13	0
900	01:17:01.322	Thread Group 1-3...	HTTP Request	14	✓	1976	129	14	0

☐ Scroll automatically? ☐ Child samples? No of Samples: 900 Latest Sample: 14 Averages: 11 Deviation: 4

Reviews:

The “reviews” successfully handled the applied load of 3,225 requests with an average response time of only 9 ms and 0% error rate. The results confirm that the module is highly responsive, stable, and performs efficiently under concurrent request conditions, making it suitable for real-time user operations.



reviews.jmx (C:\Users\Yash Panchal\Downloads\apache-jmeter-5.6.3\apache-jmeter-5.6.3\bin\reviews.jmx) - Apache JMeter (5.6.3)

FileEditSearchRunOptionsToolsHelp

Test Plan

Thread Group

HTTP Request Defaults

HTTP Cookie Manager

Reviews

View Results in Table

00:08:190 / 0/1000

View Results in Table

View Results in Table

Comments:

Write results to file / Read from file

Filename

Browse...

Log/Display Only:

Errors

Successes

Configure

Sample #	Start Time	Thread Name	Label	Sample Time(ms)	Status	Bytes	Sent Bytes	Latency	Connect Time(ms)
3201	01:38:18.120	Thread Group 1-9...	Reviews	9	✓	1976	123	9	0
3202	01:38:18.598	Thread Group 1-9...	Reviews	12	✓	1976	123	11	2
3203	01:38:18.610	Thread Group 1-9...	Reviews	10	✓	1976	123	10	0
3204	01:38:18.620	Thread Group 1-9...	Reviews	10	✓	1976	123	10	0
3205	01:38:19.097	Thread Group 1-9...	Reviews	19	✓	1976	123	19	1
3206	01:38:19.116	Thread Group 1-9...	Reviews	7	✓	1976	123	7	0
3207	01:38:19.123	Thread Group 1-9...	Reviews	6	✓	1976	123	6	0
3208	01:38:19.598	Thread Group 1-9...	Reviews	10	✓	1976	123	10	2
3209	01:38:19.608	Thread Group 1-9...	Reviews	10	✓	1976	123	10	0
3210	01:38:19.618	Thread Group 1-9...	Reviews	6	✓	1976	123	6	0
3211	01:38:20.098	Thread Group 1-9...	Reviews	11	✓	1976	123	11	3
3212	01:38:20.109	Thread Group 1-9...	Reviews	7	✓	1976	123	7	0
3213	01:38:20.116	Thread Group 1-9...	Reviews	7	✓	1976	123	7	0
3214	01:38:20.597	Thread Group 1-9...	Reviews	10	✓	1976	123	10	3
3215	01:38:20.607	Thread Group 1-9...	Reviews	7	✓	1976	123	7	0
3216	01:38:20.614	Thread Group 1-9...	Reviews	6	✓	1976	123	6	0
3217	01:38:21.098	Thread Group 1-9...	Reviews	10	✓	1976	123	10	2
3218	01:38:21.108	Thread Group 1-9...	Reviews	7	✓	1976	123	7	0
3219	01:38:21.115	Thread Group 1-9...	Reviews	7	✓	1976	123	7	0
3220	01:38:21.601	Thread Group 1-9...	Reviews	11	✓	1976	123	11	3
3221	01:38:21.612	Thread Group 1-9...	Reviews	6	✓	1976	123	6	0
3222	01:38:21.618	Thread Group 1-9...	Reviews	6	✓	1976	123	6	0
3223	01:38:22.099	Thread Group 1-1...	Reviews	11	✓	1976	123	11	2
3224	01:38:22.110	Thread Group 1-1...	Reviews	9	✓	1976	123	9	0
3225	01:38:22.119	Thread Group 1-1...	Reviews	8	✓	1976	123	8	0

Scroll automatically?

Child samples?

No of Samples 3225

Latest Sample 8

Average 9

Deviation 6

18°

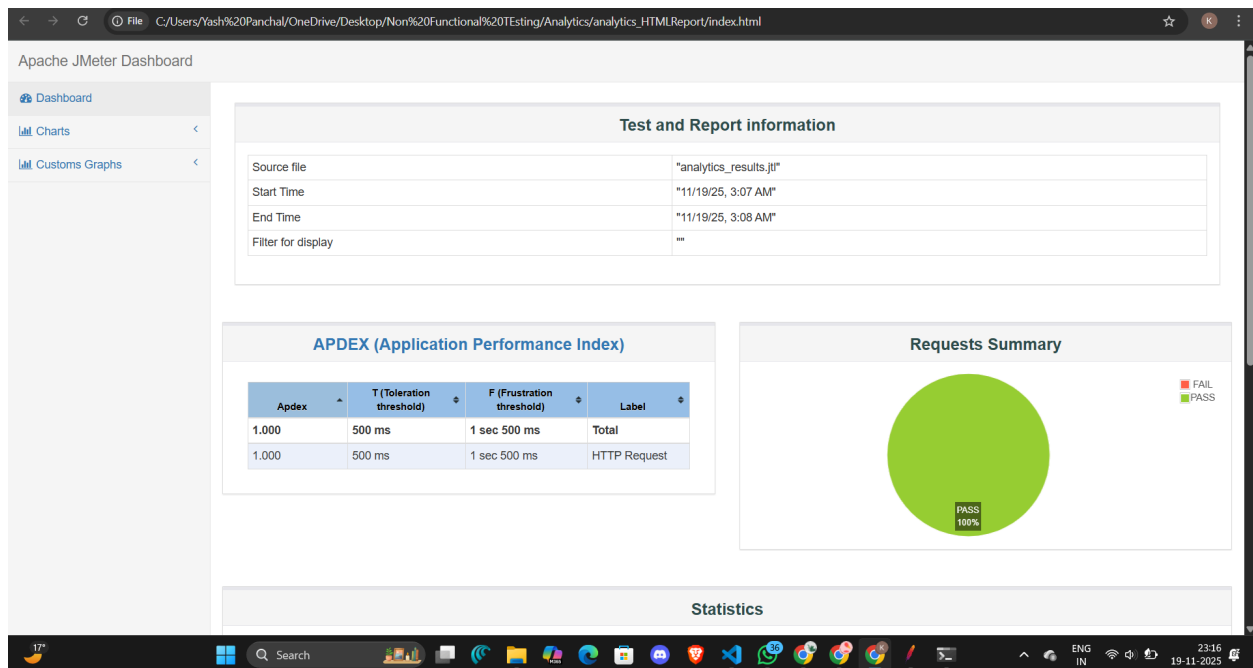
Search

ENG IN

01:38 19-11-2025

Analytics:

The “Analytics” efficiently handled the concurrent load of 900 requests, sustaining an average response time of just 9 ms with no errors. The module demonstrated high responsiveness, reliability, and stability under load conditions, confirming that the analytical data retrieval is well-optimized for real-time user interaction.



analytics.jmx (C:\Users\Yash Panchal\Downloads\apache-jmeter-5.6.3\apache-jmeter-5.6.3\bin\analytics.jmx) - Apache JMeter (5.6.3)

FileEditSearchRunOptionsToolsHelp

Test Plan

Thread Group

HTTP Request Defaults

HTTP Cookie Manager

HTTP Request

View Results in Table

00:01:390 / 0/300

View Results in Table

Name:View Results in Table

Comments:

Write results to file / Read from file

FilenameBrowse...Log/Display Only:ErrorsSuccessesConfigure

Sample #	Start Time	Thread Name	Label	Sample Time(ms)	Status	Bytes	Sent Bytes	Latency	Connect Time(ms)
876	01:44:51.136	Thread Group 1-2...	HTTP Request	9	✓	1976	125	9	0
877	01:44:51.459	Thread Group 1-2...	HTTP Request	8	✓	1976	125	8	2
878	01:44:51.467	Thread Group 1-2...	HTTP Request	7	✓	1976	125	7	0
879	01:44:51.475	Thread Group 1-2...	HTTP Request	6	✓	1976	125	6	0
880	01:44:51.791	Thread Group 1-2...	HTTP Request	11	✓	1976	125	11	2
881	01:44:51.802	Thread Group 1-2...	HTTP Request	6	✓	1976	125	6	0
882	01:44:51.808	Thread Group 1-2...	HTTP Request	6	✓	1976	125	6	0
883	01:44:52.126	Thread Group 1-2...	HTTP Request	9	✓	1976	125	9	3
884	01:44:52.135	Thread Group 1-2...	HTTP Request	5	✓	1976	125	5	0
885	01:44:52.140	Thread Group 1-2...	HTTP Request	7	✓	1976	125	7	0
886	01:44:52.460	Thread Group 1-2...	HTTP Request	11	✓	1976	125	11	4
887	01:44:52.471	Thread Group 1-2...	HTTP Request	6	✓	1976	125	6	0
888	01:44:52.477	Thread Group 1-2...	HTTP Request	6	✓	1976	125	6	0
889	01:44:52.797	Thread Group 1-2...	HTTP Request	16	✓	1976	125	16	3
890	01:44:52.813	Thread Group 1-2...	HTTP Request	14	✓	1976	125	14	0
891	01:44:52.827	Thread Group 1-2...	HTTP Request	13	✓	1976	125	13	0
892	01:44:53.131	Thread Group 1-2...	HTTP Request	11	✓	1976	125	11	4
893	01:44:53.142	Thread Group 1-2...	HTTP Request	10	✓	1976	125	10	0
894	01:44:53.152	Thread Group 1-2...	HTTP Request	10	✓	1976	125	10	0
895	01:44:53.468	Thread Group 1-2...	HTTP Request	15	✓	1976	125	15	4
896	01:44:53.484	Thread Group 1-2...	HTTP Request	7	✓	1976	125	7	0
897	01:44:53.491	Thread Group 1-2...	HTTP Request	6	✓	1976	125	6	0
898	01:44:53.797	Thread Group 1-3...	HTTP Request	9	✓	1976	125	9	3
899	01:44:53.807	Thread Group 1-3...	HTTP Request	9	✓	1976	125	9	0
900	01:44:53.816	Thread Group 1-3...	HTTP Request	17	✓	1976	125	17	0

☐ Scroll automatically?☐ Child samples?

No of Samples: 900Latest Sample: 17Average: 9Deviation: 4

18°

Search

ENG IN

01:4519-11-2025

Spike Testing

Dashboard:

- Spike testing was performed to evaluate system performance under a sudden surge in concurrent users.
- User load suddenly increased from 10 to 200 virtual users, simulating a real-world traffic spike.
- Average response time remained nearly consistent, increasing only from 811 ms to 829 ms.
- 90% response time recorded at 991 ms, showing that most requests were processed within acceptable limits.
- Throughput increased significantly from 8 requests/sec to 226 requests/sec, indicating excellent scalability.
- Error percentage reduced from 3.31% under normal load to 2.33% during spike testing.
- No crashes, timeouts, or failures occurred throughout the test, and the system remained fully responsive.

Conclusion

- The application successfully handled a sudden traffic surge with stable performance and no system failures.
- The minimal change in response time and improved error handling demonstrate that the system is highly resilient and scalable.
- Spike testing indicates that the application can efficiently manage short-term high load conditions while maintaining reliability and responsiveness.
- Therefore, the system is considered well-optimized and capable of handling unexpected high traffic spikes effectively.

