

LAPORAN PENGUJIAN PERFORMANCE TESTING MENGUNAKAN JMETER

*diajukan untuk memenuhi salah satu tugas mata kuliah PPPL pada semester
genap tahun akademik 2023/2024*



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**PROGRAM STUDI ILMU KOMPUTER
FAKULTAS PENDIDIKAN MATEMATIKA DAN
ILMU PENGETAHUAN ALAM
UNIVERSITAS PENDIDIKAN INDONESIA**

2024

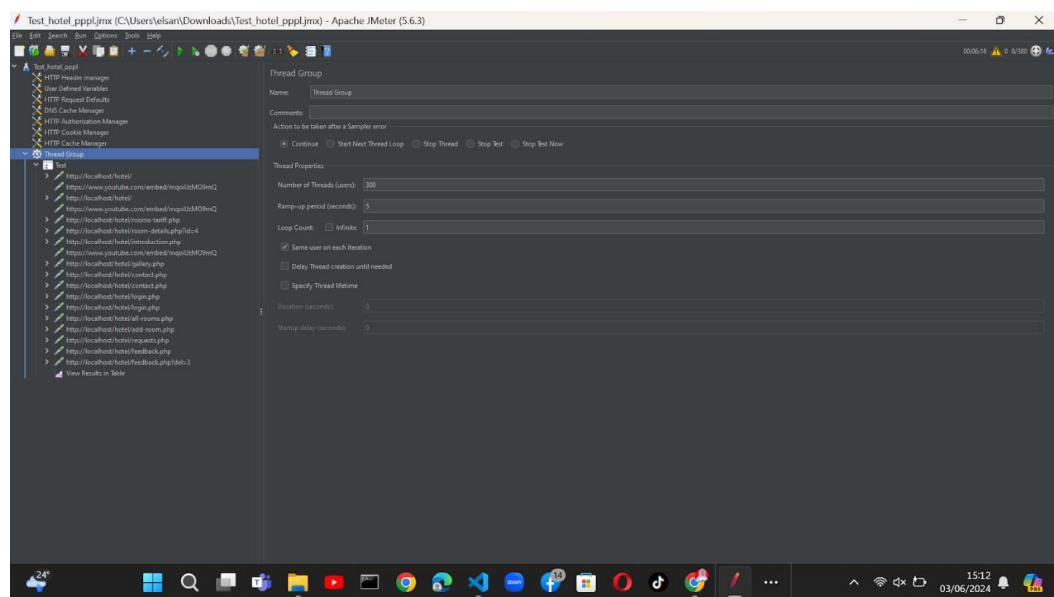
1. LOAD TESTING

Sebuah pengujian untuk memeriksa kemampuan dari aplikasi dalam melakukan load aplikasi atau website, gunanya agar mengetahui beban dari website ke database atau server.

Load testing umumnya digunakan untuk menguji kinerja aplikasi web, basis data, atau sistem lainnya di bawah beban yang diharapkan. Misalnya, menguji berapa banyak pengguna yang dapat diakomodasi oleh situs web pembelian tiket online selama periode penjualan penjualan tiket pada acara besar berlangsung.

A. Load testing 300 user

Inisiasi thread



Pertama akan ditentukan beban pengujian sebanyak 300 user dalam waktu 5 detik dan dalam satu kali perulangan.

Hasil run

Sample #	Start Time	Thread Name	Label	Sample Time (ms)	Status	Bytes	Sent Bytes	Latency	Connect (ms)
1045	14.05.44.285	Thread Grp...	https://www.youtube.com/emb...	2262	Success	9004	631	2185	2172
1046	14.05.45.10	Thread Grp...	https://www.youtube.com/emb...	1261	Success	9004	631	420	264
1047	14.05.45.55	Thread Grp...	https://localhost/hotel/introduct...	1261	Success	8907	512	1281	7
1048	14.05.45.58	Thread Grp...	https://localhost/hotel/gallery.php	1265	Error	10017	507	1299	7
1049	14.05.45.59	Thread Grp...	https://localhost/hotel/room-quest.php	1311	Success	10017	507	1298	6
1050	14.05.45.58	Thread Grp...	https://localhost/hotel/gallery.php	1327	Success	10017	507	1302	4
1051	14.05.45.59	Thread Grp...	https://localhost/hotel/introduct...	31	Success	10016	507	26	0
1052	14.05.45.4	Thread Grp...	https://localhost/hotel/gallery.php	38	Success	10016	507	34	0
1053	14.05.46.041	Thread Grp...	https://localhost/hotel/introduct...	17	Success	2079	0	0	0
1054	14.05.45.710	Thread Grp...	https://localhost/hotel/introduct...	1258	Success	8907	512	1258	3
1055	14.05.45.734	Thread Grp...	https://localhost/hotel/introduct...	1223	Success	8907	512	1223	6
1056	14.05.45.863	Thread Grp...	https://localhost/hotel/introduct...	1050	Success	8907	512	1050	3
1057	14.05.45.890	Thread Grp...	https://www.youtube.com/emb...	714	Success	9003	631	353	0
1058	14.05.45.892	Thread Grp...	https://localhost/hotel/contact.php	853	Success	8904	507	903	4
1059	14.05.46.087	Thread Grp...	https://localhost/hotel/contact.php	972	Success	8904	507	972	8
1060	14.05.46.112	Thread Grp...	https://localhost/hotel/contact.php	965	Success	8904	507	965	4
1061	14.05.46.286	Thread Grp...	https://localhost/hotel/introduct...	887	Success	8907	512	887	4
1062	14.05.46.277	Thread Grp...	https://localhost/hotel/introduct...	884	Success	8907	512	884	6
1063	14.05.46.273	Thread Grp...	https://localhost/hotel/contact.php	912	Success	8904	507	912	4
1064	14.05.46.291	Thread Grp...	https://localhost/hotel/introduct...	840	Success	8907	512	840	1
1065	14.05.46.143	Thread Grp...	https://localhost/hotel/gallery.php	27	Success	10016	507	26	0
1066	14.05.46.323	Thread Grp...	https://localhost/hotel/introduct...	912	Success	8907	512	912	9
1067	14.05.46.338	Thread Grp...	https://localhost/hotel/contact.php	956	Success	8904	507	956	4
1068	14.05.46.348	Thread Grp...	https://localhost/hotel/introduct...	972	Success	8907	512	972	3
1069	14.05.46.430	Thread Grp...	https://localhost/hotel/introduct...	930	Success	8907	512	930	6
1070	14.05.47.542	Thread Grp...	https://localhost/hotel/gallery.php	17	Success	2079	0	0	0
1071	14.05.46.476	Thread Grp...	https://localhost/hotel/introduct...	623	Success	8904	507	623	1
1072	14.05.46.539	Thread Grp...	https://localhost/hotel/room-quest.php	854	Success	10013	512	854	4
1073	14.05.46.596	Thread Grp...	https://localhost/hotel/room-quest.php	814	Success	10013	512	814	4
1074	14.05.46.476	Thread Grp...	https://localhost/hotel/gallery.php	866	Success	10017	507	867	16
1075	14.05.47.425	Thread Grp...	https://localhost/hotel/gallery.php	24	Success	10016	507	21	0
1076	14.05.47.425	Thread Grp...	https://localhost/hotel/gallery.php	31	Success	10016	507	25	0
1077	14.05.47.426	Thread Grp...	https://localhost/hotel/gallery.php	46	Success	10016	507	42	0

Terdapat error pada page hotel/gallery.php yaitu yang berada pada sample yang ke 1048 dan pada sample yang ke 1065

B. Testing 1000 user

Inisiasi

Property	Value
Name	Thread Group
Number of Threads (users)	1000
Ramp-up period (seconds)	30
Loop Count	Infinite
Same user on each iteration	<input checked="" type="checkbox"/>
Delay Thread creation until needed	<input type="checkbox"/>
Specify Thread Lifetime	<input type="checkbox"/>
Duration (seconds)	0
Startup delay (seconds)	0
Action to be taken after a Sampler error	Continue

akan ditentukan pengujian beban sebanyak 1000 user dalam waktu 30 detik dan dalam satu kali perulangan.

Hasil

Sample #	Start Time	Thread Name	Label	Sample Time(ms)	Status	Bytes	Sent Bytes	Latency	Connect Time(ms)
217	15:39:48.283	Thread Group 1-2	http://localhost/hotel	13191	Success	19077	548	14892	4
218	15:40:02.844	Thread Group 1-2	https://www.youtube.com/embed/mqpldARQ9mQ	542	Success	95031	513	486	407
219	15:40:02.819	Thread Group 1-1	https://www.youtube.com/embed/mqpldARQ9mQ	389	Success	95959	513	292	255
220	15:39:53.782	Thread Group 1-1	https://www.youtube.com/embed/mqpldARQ9mQ	9407	Success	95517	513	6325	6245
221	15:40:02.625	Thread Group 1-1	https://www.youtube.com/embed/mqpldARQ9mQ	555	Success	95516	513	478	402
222	15:39:52.763	Thread Group 1-1	https://www.youtube.com/embed/mqpldARQ9mQ	10950	Error	3050	0	0	15945
223	15:39:51.829	Thread Group 1-87	https://www.youtube.com/embed/mqpldARQ9mQ	11388	Error	3050	0	0	11366
224	15:39:52.538	Thread Group 1-1	https://www.youtube.com/embed/mqpldARQ9mQ	11084	Error	3050	0	0	11084
225	15:39:52.271	Thread Group 1-16	https://www.youtube.com/embed/mqpldARQ9mQ	11029	Error	3050	0	0	11029
226	15:39:51.931	Thread Group 1-49	https://www.youtube.com/embed/mqpldARQ9mQ	11482	Error	3050	0	0	11481
227	15:40:02.421	Thread Group 1-1	https://www.youtube.com/embed/mqpldARQ9mQ	987	Success	96097	513	690	638
228	15:39:51.953	Thread Group 1-12	https://www.youtube.com/embed/mqpldARQ9mQ	11444	Error	3050	0	0	11443
229	15:39:52.358	Thread Group 1-48	https://www.youtube.com/embed/mqpldARQ9mQ	11027	Error	3050	0	0	11027
230	15:39:48.298	Thread Group 1-2	https://www.youtube.com/embed/mqpldARQ9mQ	13194	Success	19077	548	13098	6
231	15:39:47.428	Thread Group 1-2	https://www.youtube.com/embed/mqpldARQ9mQ	15619	Success	19077	548	15481	6
232	15:39:46.245	Thread Group 1-2	https://www.youtube.com/embed/mqpldARQ9mQ	13193	Success	19077	548	14030	6
233	15:39:48.248	Thread Group 1-2	https://www.youtube.com/embed/mqpldARQ9mQ	13190	Success	19077	548	14553	6
234	15:40:02.679	Thread Group 1-1	https://www.youtube.com/embed/mqpldARQ9mQ	885	Success	96096	513	296	212
235	15:40:02.688	Thread Group 1-2	https://www.youtube.com/embed/mqpldARQ9mQ	383	Success	95524	513	314	227
236	15:40:03.108	Thread Group 1-2	https://www.youtube.com/embed/mqpldARQ9mQ	870	Success	95177	513	811	235
237	15:39:52.284	Thread Group 1-33	https://www.youtube.com/embed/mqpldARQ9mQ	10757	Success	95050	0	0	10757
238	15:39:52.213	Thread Group 1-1	https://www.youtube.com/embed/mqpldARQ9mQ	12787	Success	95050	0	0	12787
239	15:39:48.248	Thread Group 1-2	https://www.youtube.com/embed/mqpldARQ9mQ	13186	Success	19077	548	13188	6
240	15:39:52.378	Thread Group 1-47	https://www.youtube.com/embed/mqpldARQ9mQ	11128	Error	3050	0	0	11127
241	15:39:54.148	Thread Group 1-26	https://www.youtube.com/embed/mqpldARQ9mQ	9383	Error	95527	513	653	9178
242	15:40:03.088	Thread Group 1-2	https://www.youtube.com/embed/mqpldARQ9mQ	473	Success	95701	513	405	309
243	15:39:54.417	Thread Group 1-1	https://www.youtube.com/embed/mqpldARQ9mQ	8311	Success	95988	513	8113	8033
244	15:39:54.124	Thread Group 1-57	https://www.youtube.com/embed/mqpldARQ9mQ	7687	Success	95181	513	626	626
245	15:39:48.158	Thread Group 1-2	https://www.youtube.com/embed/mqpldARQ9mQ	13388	Success	19077	548	13388	6
246	15:40:03.198	Thread Group 1-2	https://www.youtube.com/embed/mqpldARQ9mQ	560	Success	95538	513	547	308
247	15:39:54.416	Thread Group 1-93	https://www.youtube.com/embed/mqpldARQ9mQ	6243	Success	95142	513	658	512
248	15:39:48.358	Thread Group 1-2	https://www.youtube.com/embed/mqpldARQ9mQ	15487	Success	19077	548	15487	6
249	15:39:48.508	Thread Group 1-2	https://www.youtube.com/embed/mqpldARQ9mQ	15265	Success	19077	548	15254	6

Terdapat error mulai dari sample ke 200 keatas, rata-rata error pada bagian embed youtube (pada homepage)

2. STRESS TESTING

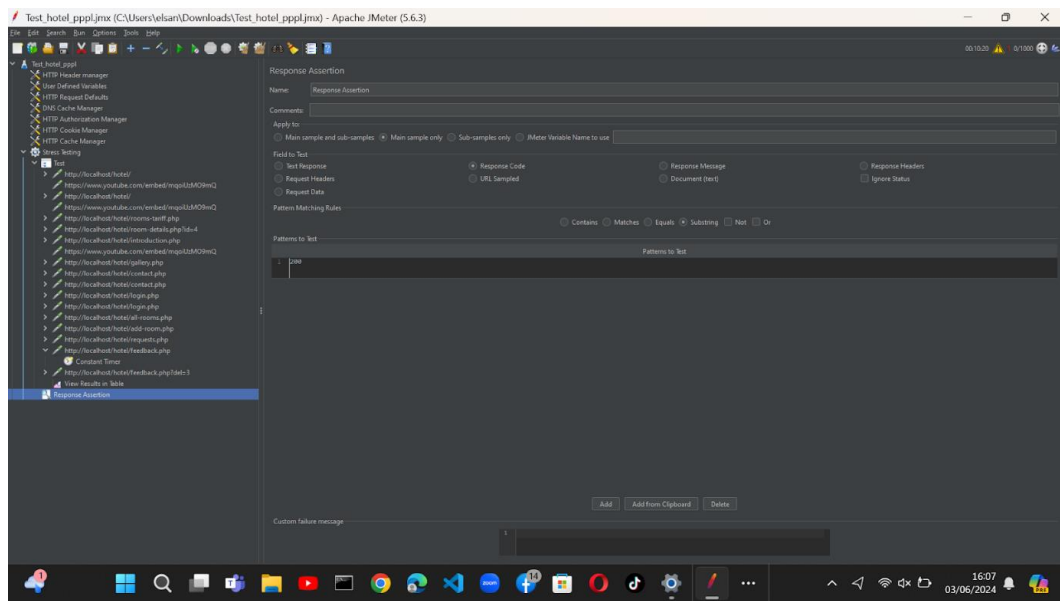
Testing yang digunakan untuk memeriksa kemampuan dari website dalam menerima traffic dari luar, gunanya agar website tidak down saat banyak user yang mengakses website tersebut.

Stress testing sering digunakan untuk menguji ketahanan sistem dalam situasi ekstrim atau luar biasa. Misalnya, menguji seberapa baik sistem perbankan online dapat menangani lonjakan *traffic* saat peluncuran produk atau penawaran baru atau menghadapi serangan DDoS.

A. Inisiasi 100 user

Property	Value
Name	Stress Testing
Comments	Action to be taken after a sampler error
Action to be taken after a sampler error	Continue
Thread Properties	
Number of Threads (users)	100
Ramp-up period (seconds)	10
Loop Count	Infinite
Same user on each iteration	Checked
Delay thread creation until needed	Checked
Specify Thread Name	
Duration (seconds)	0
Startup delay (seconds)	0

B. Penambahan assertion code 200 (response code OK)



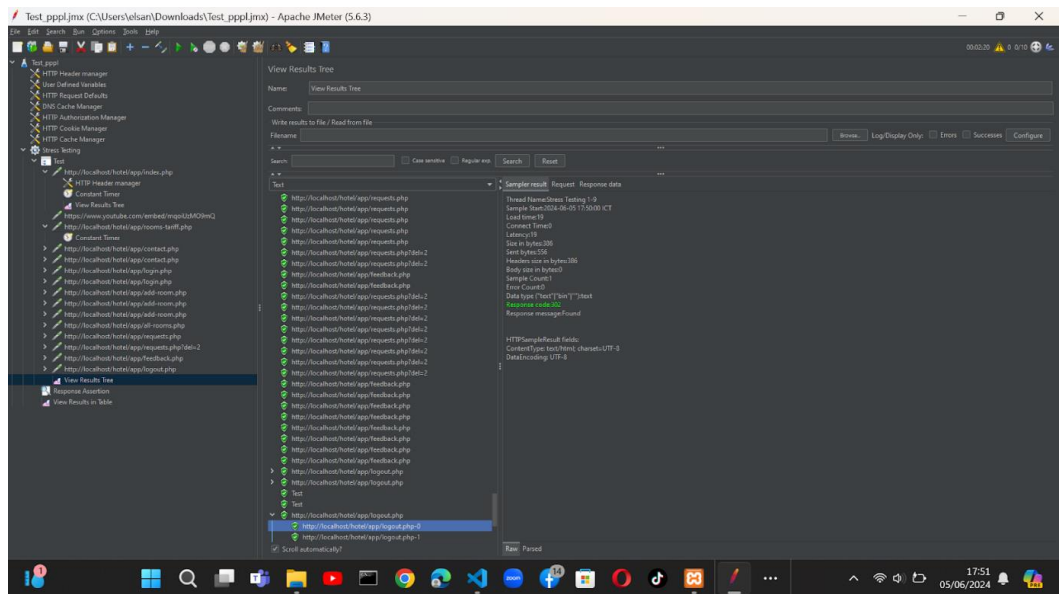
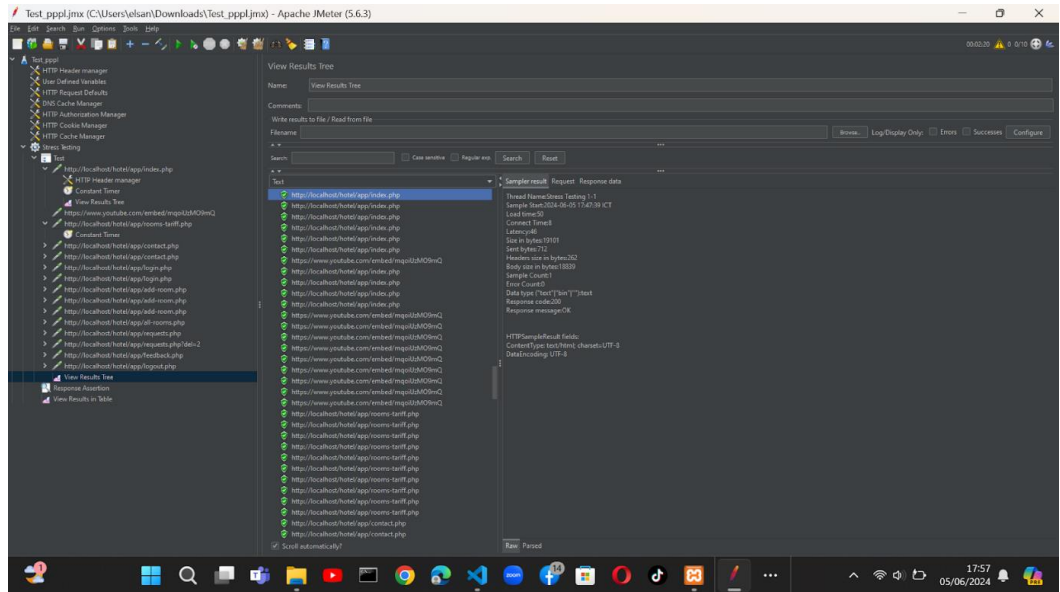
Response code 200 : OK (test passed)

Hasil

The screenshot shows the 'View Results in Table' window in Apache JMeter 5.6.3. The table displays test results for 33 samples. All samples passed with a status of 'OK'. The table columns include Sample #, Start Time, Thread Name, Label, Sample Time(s), Status, Bytes, Sent Bytes, Latency, and Connect Time(s).

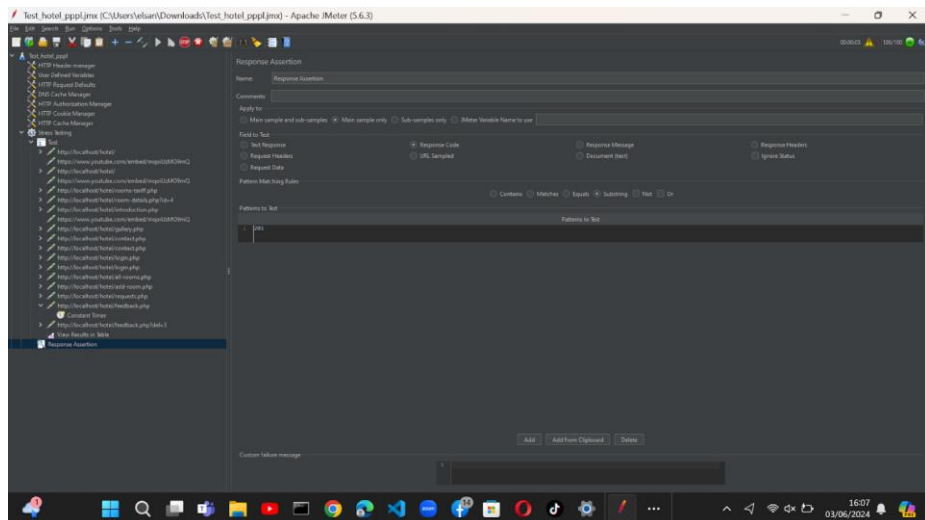
Sample #	Start Time	Thread Name	Label	Sample Time(s)	Status	Bytes	Sent Bytes	Latency	Connect Time(s)
1	15:38:42.186	Thread Group 1-1	http://localhost:8080/	0.004	OK	10077	540	7668	6.02
2	15:38:42.193	Thread Group 1-2	http://localhost:8080/	0.003	OK	10077	540	8061	4
3	15:38:45.533	Thread Group 1-115	http://localhost:8080/	0.016	OK	10077	540	3647	4
4	15:38:45.442	Thread Group 1-140	http://localhost:8080/	0.009	OK	10077	540	2578	3
5	15:38:45.285	Thread Group 1-117	http://localhost:8080/	0.016	OK	10077	540	4115	4
6	15:38:45.289	Thread Group 1-152	http://localhost:8080/	0.005	OK	10077	540	4894	3
7	15:38:42.188	Thread Group 1-30	http://localhost:8080/	0.007	OK	10077	540	724	6.03
8	15:38:45.136	Thread Group 1-124	http://localhost:8080/	0.005	OK	10077	540	4538	3
9	15:38:45.302	Thread Group 1-118	http://localhost:8080/	0.009	OK	10077	540	4094	10
10	15:38:45.280	Thread Group 1-120	http://localhost:8080/	0.012	OK	10077	540	4471	4
11	15:38:44.275	Thread Group 1-106	http://localhost:8080/	0.007	OK	10077	540	7426	1
12	15:38:45.151	Thread Group 1-142	http://localhost:8080/	0.003	OK	10077	540	711	6
13	15:38:45.211	Thread Group 1-128	http://localhost:8080/	0.006	OK	10077	540	4395	4
14	15:38:44.281	Thread Group 1-146	http://localhost:8080/	0.004	OK	10077	540	7123	87
15	15:38:45.187	Thread Group 1-148	http://localhost:8080/	0.003	OK	10077	540	727	8
16	15:38:45.204	Thread Group 1-120	http://localhost:8080/	0.006	OK	10077	540	4207	3
17	15:38:45.142	Thread Group 1-147	http://localhost:8080/	0.009	OK	10077	540	7840	4
18	15:38:45.099	Thread Group 1-106	http://localhost:8080/	0.001	OK	10077	540	4613	10
19	15:38:45.167	Thread Group 1-121	http://localhost:8080/	0.009	OK	10077	540	4243	1
20	15:38:44.802	Thread Group 1-111	http://localhost:8080/	0.005	OK	10077	540	4614	1
21	15:38:45.275	Thread Group 1-109	http://localhost:8080/	0.012	OK	10077	540	7410	1
22	15:38:45.802	Thread Group 1-116	http://localhost:8080/	0.007	OK	10077	540	4618	1
23	15:38:42.838	Thread Group 1-149	http://localhost:8080/	0.004	OK	10077	540	5180	218
24	15:38:45.381	Thread Group 1-108	http://localhost:8080/	0.006	OK	10077	540	4657	1
25	15:38:45.616	Thread Group 1-143	http://localhost:8080/	0.003	OK	10077	540	2563	6
26	15:38:44.215	Thread Group 1-140	http://localhost:8080/	0.004	OK	10077	540	7261	1
27	15:38:44.133	Thread Group 1-145	http://localhost:8080/	0.006	OK	10077	540	7305	1
28	15:38:45.172	Thread Group 1-140	http://localhost:8080/	0.004	OK	10077	540	2506	4
29	15:38:45.815	Thread Group 1-157	http://localhost:8080/	0.003	OK	10077	540	9676	4
30	15:38:45.389	Thread Group 1-110	http://localhost:8080/	0.019	OK	10077	540	4118	3
31	15:38:45.721	Thread Group 1-122	http://localhost:8080/	0.012	OK	10077	540	2728	3
32	15:38:45.362	Thread Group 1-122	http://localhost:8080/	0.003	OK	10077	540	4194	11
33	15:38:45.311	Thread Group 1-107	http://localhost:8080/	0.004	OK	10077	540	4309	1

Hasil pada home page



Response code found (302)

C. Penambahan assertion code 201 (gagal)



Test hotel.pptl.pptl

View Results in Table

Comments

Write results to file / Read from file

Filename

Browser Log Only Only Errors Successes Configure

Sample #	Start Time	Thread Name	Label	Sample Time(s)	Status	Bytes	Sent Bytes	Latency	Connect Time(s)
1	15:51:30.812	Stress-Testing-1-3	http://localhost:8080/	1097	200	2621	548	1097	3
2	15:51:31.156	Stress-Testing-1-4	http://localhost:8080/	1104	200	2621	548	1104	3
3	15:51:31.249	Stress-Testing-1-7	http://localhost:8080/	933	200	2621	548	933	3
4	15:51:31.075	Stress-Testing-1-5	http://localhost:8080/	1208	200	2621	548	1208	3
5	15:51:31.075	Stress-Testing-1-2	http://localhost:8080/	366	200	9303	113	366	10
6	15:51:30.701	Stress-Testing-1-2	http://localhost:8080/	1798	200	2621	548	1798	3
7	15:51:32.179	Stress-Testing-1-6	https://www.pptl.com/	479	200	9379	513	479	207
8	15:51:30.181	Stress-Testing-1-7	https://www.pptl.com/	526	200	9351	513	526	208
9	15:51:32.288	Stress-Testing-1-5	https://www.pptl.com/	486	200	9379	513	486	211
10	15:51:32.312	Stress-Testing-1-2	https://www.pptl.com/	487	200	9392	513	487	207
11	15:51:31.348	Stress-Testing-1-2	https://www.pptl.com/	1760	200	2621	548	1760	3
12	15:51:32.427	Stress-Testing-1-9	https://www.pptl.com/	1360	200	2621	548	1360	3
13	15:51:31.474	Stress-Testing-1-2	https://www.pptl.com/	142	200	9361	513	142	178
14	15:51:32.018	Stress-Testing-1-7	https://www.pptl.com/	1162	200	9379	513	1162	3
15	15:51:32.251	Stress-Testing-1-7	https://www.pptl.com/	1768	200	2621	548	1768	3
16	15:51:30.302	Stress-Testing-1-4	http://localhost:8080/	3115	200	2621	548	3115	3
17	15:51:31.181	Stress-Testing-1-7	https://www.pptl.com/	296	200	9379	513	296	168
18	15:51:32.881	Stress-Testing-1-9	https://www.pptl.com/	154	200	9360	513	154	168
19	15:51:33.088	Stress-Testing-1-5	https://www.pptl.com/	428	200	9390	513	428	168
20	15:51:34.027	Stress-Testing-1-7	https://www.pptl.com/	386	200	9379	513	386	168
21	15:51:34.041	Stress-Testing-1-4	https://www.pptl.com/	410	200	9303	513	410	211
22	15:51:34.146	Stress-Testing-1-10	https://www.pptl.com/	386	200	9362	513	386	212
23	15:51:34.623	Stress-Testing-1-1	https://www.pptl.com/	4459	200	9379	513	4459	3
24	15:51:31.842	Stress-Testing-1-3	http://localhost:8080/	1587	200	2621	548	1587	3
25	15:51:31.117	Stress-Testing-1-1	https://www.pptl.com/	384	200	9387	513	384	195
26	15:51:32.737	Stress-Testing-1-2	https://www.pptl.com/	2051	200	9379	513	2051	3
27	15:51:33.431	Stress-Testing-1-13	https://www.pptl.com/	418	200	9484	513	418	177
28	15:51:31.684	Stress-Testing-1-11	http://localhost:8080/	4213	200	2621	548	4213	2
29	15:51:34.623	Stress-Testing-1-22	https://www.pptl.com/	311	200	9303	513	311	200
30	15:51:35.861	Stress-Testing-1-11	https://www.pptl.com/	301	200	9303	513	301	198
31	15:51:35.020	Stress-Testing-1-23	https://localhost:8080/	5018	200	2621	548	5018	3
32	15:51:36.240	Stress-Testing-1-23	https://www.pptl.com/	347	200	9302	513	347	183
33	15:51:32.055	Stress-Testing-1-24	https://localhost:8080/	3027	200	2621	548	3027	3

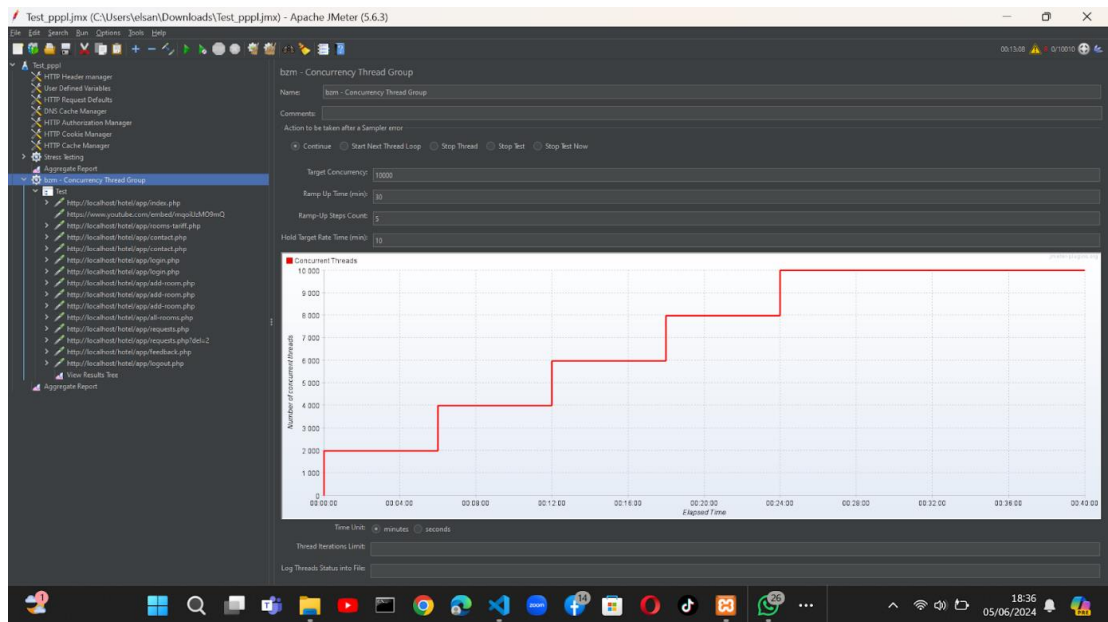
Scroll automatically Child samples No of Samples 10 Label Sample 428 Successes 100

Hasil error pada mainpage

[illegible]

231

Spike testing umumnya digunakan dalam situasi di mana sistem dapat menghadapi lonjakan lalu lintas yang tiba-tiba, seperti saat *flashsale* besar - besaran atau sering terjadi pada website atau aplikasi penjualan tiket konser.



- Target Concurrency: Tetapkan jumlah pengguna yang akan mencapai puncak selama lonjakan beban. Misalnya, 1000 pengguna.
- Ramp-Up Time: Tetapkan waktu untuk mencapai puncak beban. Misalnya, 30 menit untuk mensimulasikan lonjakan tiba-tiba.
- Ramp-Up Steps Count: Jumlah langkah untuk mencapai puncak beban. Misalnya, 5 langkah untuk lonjakan tiba-tiba.
- Hold Target Rate Time: Tetapkan waktu untuk mempertahankan beban puncak sebelum menurunkannya kembali. Misalnya, 10 menit.

Hasil

Screenshot of Apache JMeter 5.6.3 showing the 'Aggregate Report' for the 'Concurrency Thread Group'.

Label	# Samples	Average	Median	95% Line	95% Line	99% Line	Min	Maximum	Error %	Throughput	Received KB/sec	Sent KB/sec
http://localhost:8080/index.php	4530	30464	23486	63923	72374	83260	30	107766	26.34%	7.4/sec	89.13	8.82
http://www.youtube.com/watch?v=qLkM0mQ...	8646	22343	16824	54029	63993	80002	365	121815	50.69%	5.8/sec	279.84	1.44
http://localhost:8080/app/rooms-tarif.php	2187	38893	45084	68625	75346	82381	242	99547	27.87%	5.7/sec	48.27	2.06
http://localhost:8080/app/contact.php	4089	33055	41587	67904	77335	86889	57	103343	22.49%	6.9/sec	47.62	2.97
http://localhost:8080/app/add-room.php	1078	17179	23887	70330	103311	139502	26	156497	52.56%	1.8/sec	5.57	0.74
http://localhost:8080/app/login.php	147	38301	49628	67623	63486	69871	19	93972	17.01%	15.5/min	2.47	6.13
http://localhost:8080/app/all-rooms.php	10	30	27	42	42	43	22	43	0.00%	6.4/min	1.48	0.06
http://localhost:8080/app/feedback.php	2	9446	9423	9420	9420	9420	9420	9420	0.00%	12.6/min	2389.48	0.11
http://localhost:8080/app/rooms.php	2	4794	4275	5154	5154	5154	4275	5154	0.00%	22.2/min	3957.42	0.20
http://localhost:8080/app/add-room.php	2	124	124	144	144	144	124	144	0.00%	37.0/min	372.15	0.32
http://localhost:8080/app/all-rooms.php	2	25	25	26	26	26	25	26	0.00%	42.5/min	8.36	0.75
http://localhost:8080/app/feedback.php	2	20100	18020	21178	21178	21178	18020	21178	100.00%	10.3/min	613.90	0.02
TOTAL	18687	32805	31227	66889	74815	90183	19	213746	31.31%	22.8/sec	1518.19	6.86

Total dari keseluruhan proses spike test yaitu:

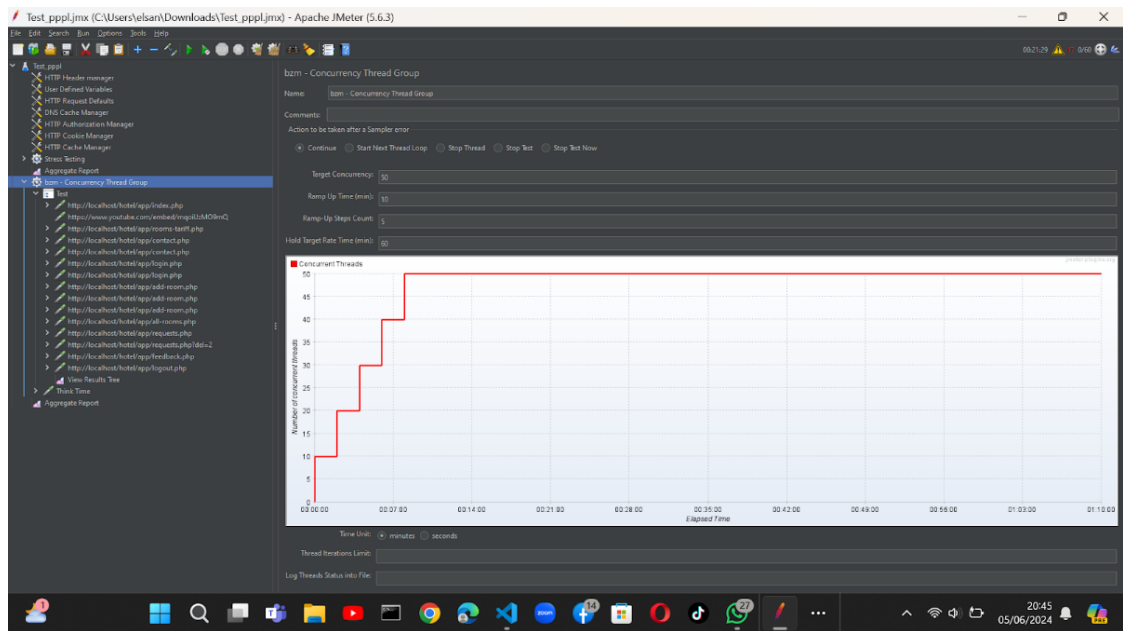
- Memiliki rata rata waktu respon adalah 2947 ms
- Memiliki median (50% dari permintaan) yang selesai dalam 22304 ms atau kurang.
- 90% dari permintaan selesai dalam 36025 ms atau kurang.
- Min/Max merupakan waktu respon tercepat adalah 1 ms dan terlama adalah 454914 ms.
- Total Error % keseluruhan pada website yaitu 31.31% dari permintaan gagal. Menunjukkan persentase permintaan yang gagal selama lonjakan beban. Total semua halaman memiliki error 31.31%. Peningkatan persentase error selama lonjakan beban menunjukkan bahwa aplikasi mungkin tidak menangani beban puncak dengan baik.
- Throughput yaitu memiliki 22 permintaan per detik diproses. Jika throughput menurun selama lonjakan beban, ini menunjukkan bahwa server tidak dapat mempertahankan tingkat pemrosesan yang tinggi.
- Received KB/sec menyimpulkan server mengirimkan 1518,19 KB data per detik.
- Sent KB/sec menyimpulkan bahwa user mengirimkan 8,86 KB data per detik.

4. SOAK TESTING

Soak Testing (atau endurance testing) adalah jenis pengujian kinerja di mana aplikasi diuji di bawah beban tertentu untuk periode waktu yang lama. Tujuannya adalah untuk menemukan masalah yang mungkin timbul ketika aplikasi dijalankan dalam kondisi beban konstan selama jangka waktu yang lama, seperti kebocoran memori, penurunan kinerja, atau masalah lain yang muncul dari penggunaan berkelanjutan.

Soak testing sering digunakan dalam situasi di mana aplikasi diharapkan beroperasi secara terus menerus, seperti situs web e-commerce yang melayani lalu lintas pengguna yang konstan sepanjang hari.

Inisiasi thread



- **Target Concurrency:** Tetapkan jumlah pengguna yang akan diuji secara terus menerus. Misalnya, 50 pengguna.
- **Ramp-Up Time:** Tetapkan waktu untuk mencapai target beban. Misalnya, 10 menit untuk memberikan peningkatan yang lebih bertahap.
- **Ramp-Up Steps Count:** Jumlah langkah untuk mencapai beban target. Misalnya, 5 langkah.
- **Hold Target Rate Time:** Tetapkan waktu untuk mempertahankan beban target. Misalnya 60 menit atau 1 jam.

Hasil

The screenshot shows the 'Summary Report' table in Apache JMeter 5.6.3. The table lists the results for each sampler in the test plan, including the number of samples, average, min, max, standard deviation, error percentage, throughput, received and sent kilobytes, and average bytes.

Label	# Samples	Average	Min	Max	Std. Dev.	Error %	Throughput	Received Kbytes	Sent Kbytes	Avg. Bytes
http://localhost:8080/app/index.php	152	650	26	5093	1130.71	0.00%	11.0/min	3.43	0.13	10032.9
http://www.youtubecomembedtingidM0dm2	52	4174	481	5769	2052.24	0.00%	18.0/min	16.26	0.08	9296.6
http://localhost:8080/app/rooms.html	142	2097	79	5394	989.18	0.00%	9.0/min	1.72	0.08	11004.6
http://localhost:8080/app/contact.php	276	1372	19	5836	5161.08	0.00%	18.0/min	2.44	0.13	8722.3
http://localhost:8080/app/login.php	280	832	14	7477	1168.85	0.00%	22.0/min	3.58	0.32	9038.6
http://localhost:8080/app/addroom.php	390	534	18	11694	1386.67	0.00%	30.0/min	3.58	0.34	11209.9
http://localhost:8080/app/allrooms.php	130	870	24	7752	1779.08	0.00%	10.0/min	2.54	0.10	14316.4
http://localhost:8080/app/request.php	11	85610	12341	123537	41171.50	72.73%	1.0/min	9.09	0.00	3377553.9
http://localhost:8080/app/request.php	1	18333	17693	19433	0.00	0.00%	5.0/min	1449.33	0.00	10543300.0
http://localhost:8080/app/feedback.php	1	836	836	836	0.00	0.00%	1.0/sec	1000.02	0.00	923602.0
http://localhost:8080/app/feedback.php	1	236	236	236	0.00	0.00%	4.0/sec	22.14	0.00	4098.0
http://localhost:8080/app/logout.php	1	34678	34678	34678	0.00	0.00%	16.0/min	1044.69	0.00	39143318.0
Test	1									
TOTAL	1317	1640	14	123537	8631.22	0.53%	1.0/sec	1240.37	1.02	797125.4

- Average yaitu keseluruhan website memiliki total waktu respon rata-rata 1843 ms.
- Min/Max merupakan waktu respon minimum dan maksimum menunjukkan rentang kinerja.
- Standar deviasi menunjukkan variasi dalam waktu respon. Nilai yang lebih rendah menunjukkan kinerja yang lebih konsisten.
- Halaman request (reservasi) memiliki error 72.73%, yang cukup tinggi dan menunjukkan sistem kurang handal selama pengujian jangka panjang.
- Throughput menunjukkan jumlah permintaan yang diproses per detik. Keseluruhan halaman memiliki throughput 1,6 permintaan per detik.
- Kb/sec dapat menunjukkan jumlah data yang diproses per detik. Misalnya, keseluruhan halaman memproses 1.02 KB data per detik.