

LAPORAN PENGUJIAN PERFORMANCE TESTING MENGUNAKAN JMETER

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



Disusun oleh :

Azzahra Alike Putri Yudha	2105899
Elsa Nabiilah	2108805
Talitha Syahla	2101330

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

2024

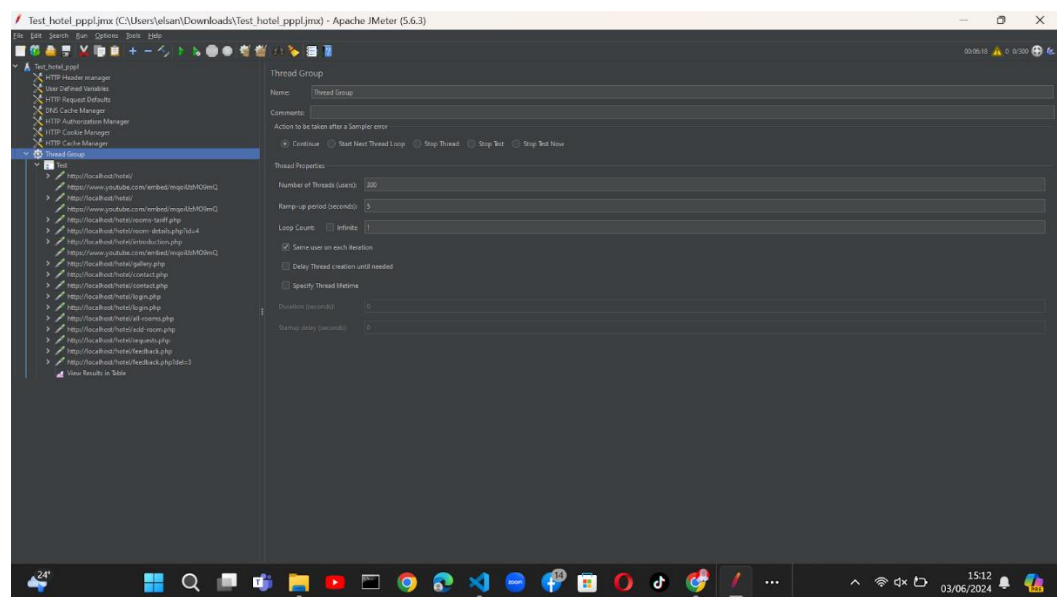
1. LOAD TESTING

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 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 Time(ms)
1040	14:57:44.205	Thread Gro...	https://www.youtube.com/watch?v=mgbl...	22502	200	93054	631	21885	21722
1041	14:58:05.740	Thread Gro...	https://www.youtube.com/watch?v=mgbl...	1051	200	94504	631	432	256
1042	14:58:05.845	Thread Gro...	https://localhost:8080/introduction.php	1482	200	8807	512	8381	3
1043	14:58:05.903	Thread Gro...	https://localhost:8080/gallery.php	1283	200	13917	507	1256	7
1044	14:58:05.980	Thread Gro...	https://localhost:8080/contact.php	1311	200	13917	507	1306	6
1045	14:58:05.986	Thread Gro...	https://localhost:8080/contact.php	1327	200	13917	507	1323	4
1046	14:58:06.056	Thread Gro...	https://localhost:8080/gallery.php	31	200	13916	507	25	0
1047	14:58:06.914	Thread Gro...	https://localhost:8080/gallery.php	28	200	13918	507	34	0
1048	14:58:06.941	Thread Gro...	https://localhost:8080/gallery.php	17	500	2079	0	0	0
1049	14:58:05.710	Thread Gro...	https://localhost:8080/introduction.php	1258	200	8907	512	1258	8
1050	14:58:05.754	Thread Gro...	https://localhost:8080/introduction.php	1252	200	8907	512	1252	6
1051	14:58:05.940	Thread Gro...	https://localhost:8080/introduction.php	8050	200	2907	512	1050	2
1052	14:58:06.309	Thread Gro...	https://www.youtube.com/watch?v=mgbl...	714	200	94843	631	368	0
1053	14:58:06.382	Thread Gro...	https://localhost:8080/contact.php	955	200	8054	507	955	4
1054	14:58:06.907	Thread Gro...	https://localhost:8080/contact.php	972	200	8054	507	972	8
1055	14:58:06.112	Thread Gro...	https://localhost:8080/contact.php	965	200	8054	507	965	4
1056	14:58:06.200	Thread Gro...	https://localhost:8080/introduction.php	887	200	8907	512	887	4
1057	14:58:06.277	Thread Gro...	https://localhost:8080/introduction.php	889	200	8907	512	889	6
1058	14:58:06.215	Thread Gro...	https://localhost:8080/contact.php	952	200	8054	507	952	4
1059	14:58:06.260	Thread Gro...	https://localhost:8080/introduction.php	840	200	8907	512	840	5
1060	14:58:07.143	Thread Gro...	https://localhost:8080/gallery.php	27	200	13918	507	27	0
1061	14:58:06.523	Thread Gro...	https://localhost:8080/introduction.php	952	200	8907	512	952	5
1062	14:58:06.538	Thread Gro...	https://localhost:8080/contact.php	956	200	8054	507	955	4
1063	14:58:06.240	Thread Gro...	https://localhost:8080/introduction.php	972	200	8907	512	971	3
1064	14:58:06.430	Thread Gro...	https://localhost:8080/introduction.php	960	200	8907	512	959	6
1065	14:58:07.302	Thread Gro...	https://localhost:8080/gallery.php	17	502	2079	0	0	0
1066	14:58:06.476	Thread Gro...	https://localhost:8080/contact.php	953	200	8054	507	953	5
1067	14:58:06.559	Thread Gro...	https://localhost:8080/contact.php	954	200	8054	512	953	4
1068	14:58:06.056	Thread Gro...	https://localhost:8080/contact.php	814	200	10910	512	817	5
1069	14:58:06.476	Thread Gro...	https://localhost:8080/gallery.php	956	200	13917	507	952	36
1070	14:58:07.425	Thread Gro...	https://localhost:8080/gallery.php	24	200	13918	507	23	0
1071	14:58:07.425	Thread Gro...	https://localhost:8080/gallery.php	18	200	13916	507	35	0
1072	14:58:07.426	Thread Gro...	https://localhost:8080/gallery.php	46	200	13916	507	42	0

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

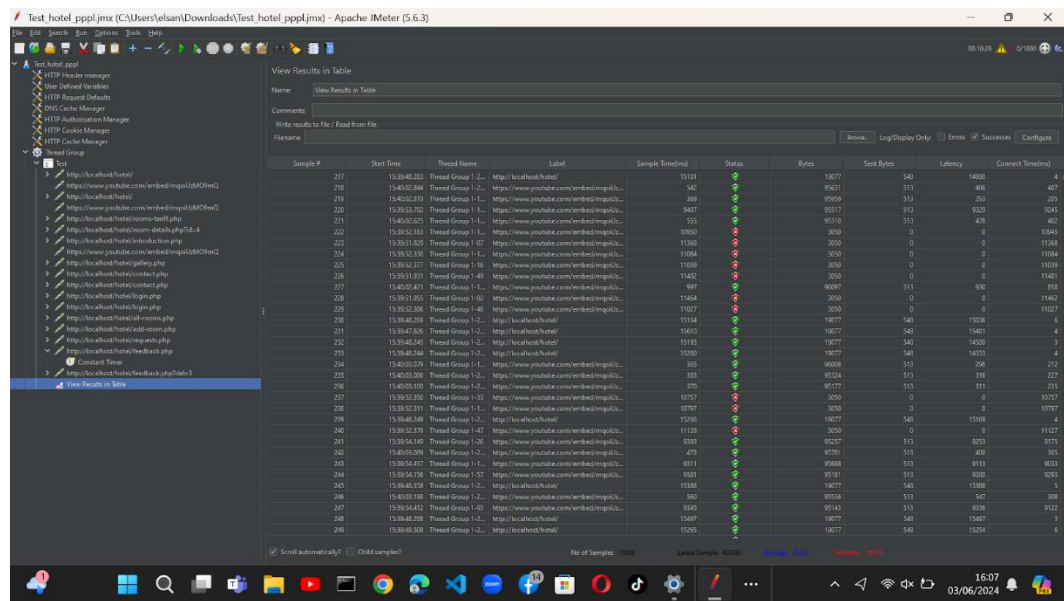
B. Testing 1000 user

Inisiasi

Name	Thread Group
Comments	
Action to be taken after a sampler error	<input checked="" type="radio"/> Continue <input type="radio"/> Start Next Thread Loop <input type="radio"/> Stop Thread <input type="radio"/> Stop Test <input type="radio"/> Stop Test Now
Thread Properties	
Number of Threads (users)	1000
Ramp-up period (seconds)	30
Loop Count	<input type="checkbox"/> Infinite <input checked="" type="checkbox"/> 1
Same user on each iteration	<input checked="" type="checkbox"/>
Delay Thread creation until needed	<input type="checkbox"/>
Specify Thread Lifetime	
Duration (seconds)	3
Startup delay (seconds)	0

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(s)	Status	Bytes	Sent Bytes	Latency	Connect Time(s)
217	15:39:40.201	Thread Group 1-2	http://localhost/hotel	151.01	Success	19277	540	14896	4
218	15:40:02.844	Thread Group 1-2	https://www.youtube.com/embed/mgqLdK0WwQ	542	Error	95631	513	405	407
219	15:40:02.819	Thread Group 1-2	https://www.youtube.com/embed/mgqLdK0WwQ	389	Error	95959	513	200	200
220	15:40:02.702	Thread Group 1-1	https://www.youtube.com/embed/mgqLdK0WwQ	9407	Error	95217	513	820	824
221	15:40:02.625	Thread Group 1-1	https://www.youtube.com/embed/mgqLdK0WwQ	555	Error	95110	513	478	482
222	15:39:56.183	Thread Group 1-1	https://www.youtube.com/embed/mgqLdK0WwQ	10990	Error	3050	0	0	10943
223	15:39:51.620	Thread Group 1-07	https://www.youtube.com/embed/mgqLdK0WwQ	11240	Error	3050	0	0	11243
224	15:39:52.536	Thread Group 1-1	https://www.youtube.com/embed/mgqLdK0WwQ	11084	Error	3050	0	0	11084
225	15:39:52.377	Thread Group 1-10	https://www.youtube.com/embed/mgqLdK0WwQ	11039	Error	3050	0	0	11039
226	15:39:51.911	Thread Group 1-48	https://www.youtube.com/embed/mgqLdK0WwQ	11482	Error	3050	0	0	11481
227	15:40:02.451	Thread Group 1-1	https://www.youtube.com/embed/mgqLdK0WwQ	987	Error	96047	513	936	938
228	15:39:51.953	Thread Group 1-50	https://www.youtube.com/embed/mgqLdK0WwQ	11454	Error	3050	0	0	11462
229	15:39:52.388	Thread Group 1-48	https://www.youtube.com/embed/mgqLdK0WwQ	11027	Error	3050	0	0	11027
230	15:39:46.268	Thread Group 1-2	http://localhost/hotel	151.04	Success	19277	540	15096	6
231	15:39:47.826	Thread Group 1-2	http://localhost/hotel	15610	Success	19277	540	15401	4
232	15:39:48.245	Thread Group 1-2	http://localhost/hotel	151.03	Success	19277	540	14900	3
233	15:39:48.244	Thread Group 1-2	http://localhost/hotel	151.00	Success	19277	540	14903	4
234	15:40:01.078	Thread Group 1-1	https://www.youtube.com/embed/mgqLdK0WwQ	365	Success	96008	513	296	212
235	15:40:02.008	Thread Group 1-2	https://www.youtube.com/embed/mgqLdK0WwQ	383	Success	95524	513	198	227
236	15:40:01.010	Thread Group 1-2	https://www.youtube.com/embed/mgqLdK0WwQ	370	Success	95177	513	301	231
237	15:39:52.250	Thread Group 1-53	https://www.youtube.com/embed/mgqLdK0WwQ	10757	Error	3050	0	0	10757
238	15:39:52.311	Thread Group 1-1	https://www.youtube.com/embed/mgqLdK0WwQ	10797	Error	3050	0	0	10797
239	15:39:48.244	Thread Group 1-2	http://localhost/hotel	15096	Success	19277	540	15096	4
240	15:39:52.378	Thread Group 1-47	https://www.youtube.com/embed/mgqLdK0WwQ	11128	Error	3050	0	0	11127
241	15:39:54.148	Thread Group 1-20	https://www.youtube.com/embed/mgqLdK0WwQ	9383	Success	95257	513	8253	9178
242	15:40:01.090	Thread Group 1-2	https://www.youtube.com/embed/mgqLdK0WwQ	475	Success	95361	513	445	365
243	15:39:54.077	Thread Group 1-1	https://www.youtube.com/embed/mgqLdK0WwQ	8811	Success	95688	513	8113	3033
244	15:39:54.158	Thread Group 1-57	https://www.youtube.com/embed/mgqLdK0WwQ	9381	Success	95181	513	8380	9293
245	15:39:48.158	Thread Group 1-2	http://localhost/hotel	151.08	Success	19277	540	15388	5
246	15:40:01.382	Thread Group 1-2	https://www.youtube.com/embed/mgqLdK0WwQ	550	Success	95238	513	547	308
247	15:39:54.412	Thread Group 1-59	https://www.youtube.com/embed/mgqLdK0WwQ	9345	Success	95143	513	8936	9122
248	15:39:48.268	Thread Group 1-2	http://localhost/hotel	15487	Success	19277	540	15487	5
249	15:39:48.528	Thread Group 1-2	http://localhost/hotel	15295	Success	19277	540	15294	6

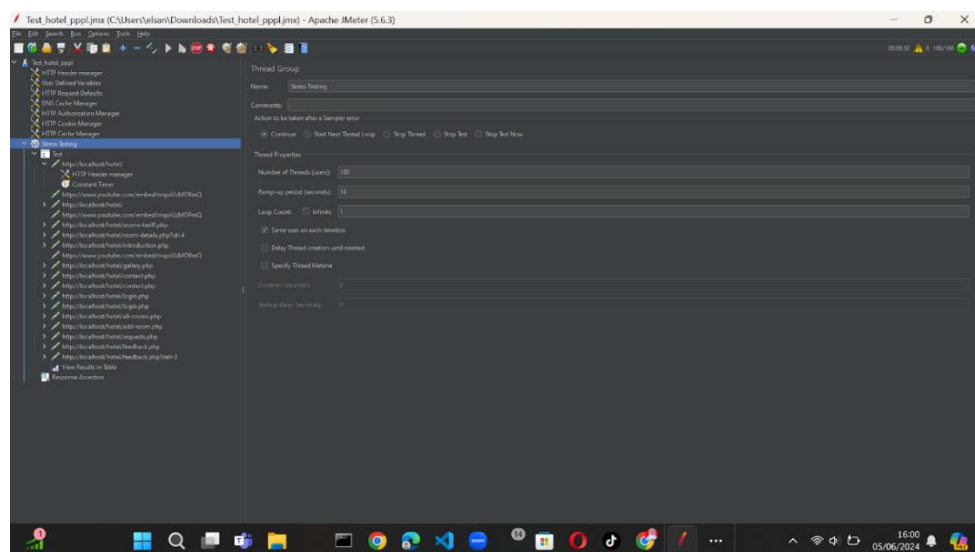
Terdapat error mulai dari sample ke 200 keatas, rata-rata error pada bagian embed youtube (pada homepage)

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.

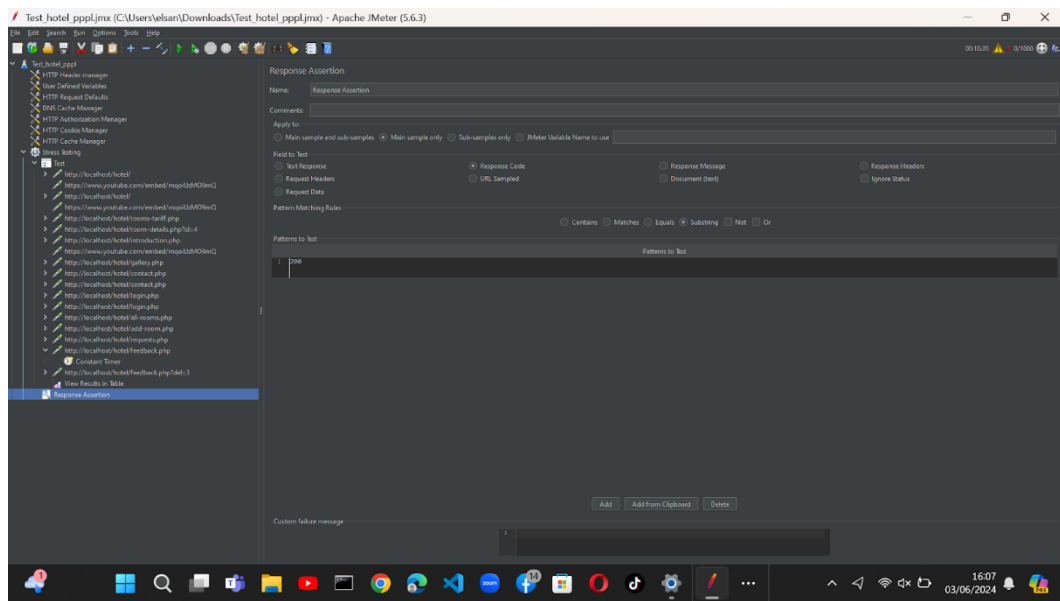
Stress testing sering digunakan untuk menguji ketahanan sistem dalam situasi ekstrim atau luar biasa. Misalnya, menguji seberapa baik sistem perbankan online dapat menangani lonjakan *traffic* saat peluncuran produk atau penawaran baru atau menghadapi serangan DDoS.

A. Inisiasi 100 user



Property	Value
Name	Stress Testing
Comments	
Action to be taken after a sampler error	Continue
Thread Properties	
Number of Threads (users)	100
Ramp-up period (seconds)	10
Loop Count	1
Delay Thread creation until needed	Yes
Specify Thread Name	
Constant Throughput	0
Starting delay (seconds)	0

B. Penambahan assertion code 200 (response code OK)



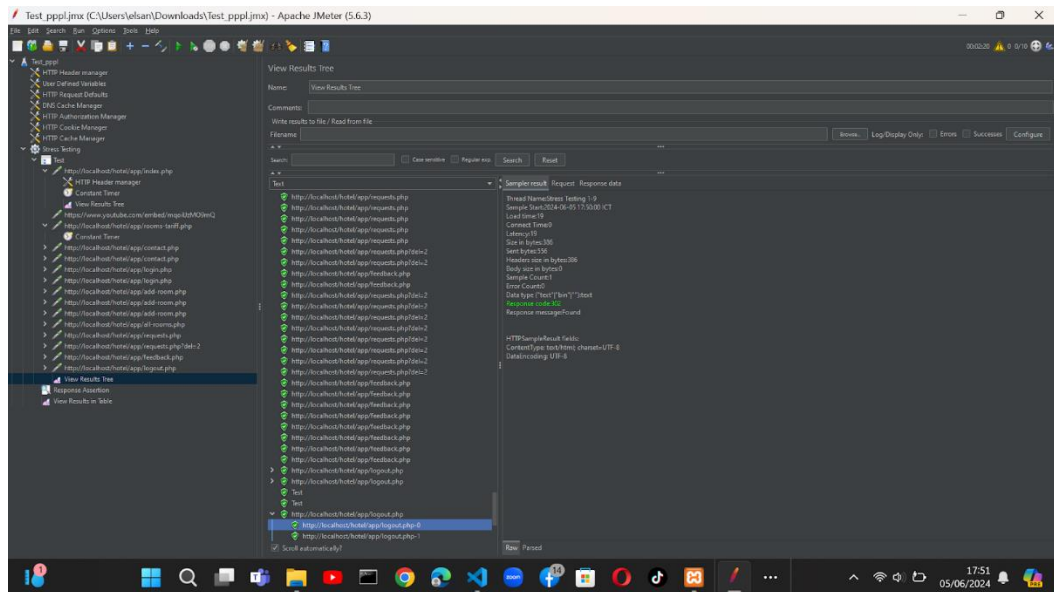
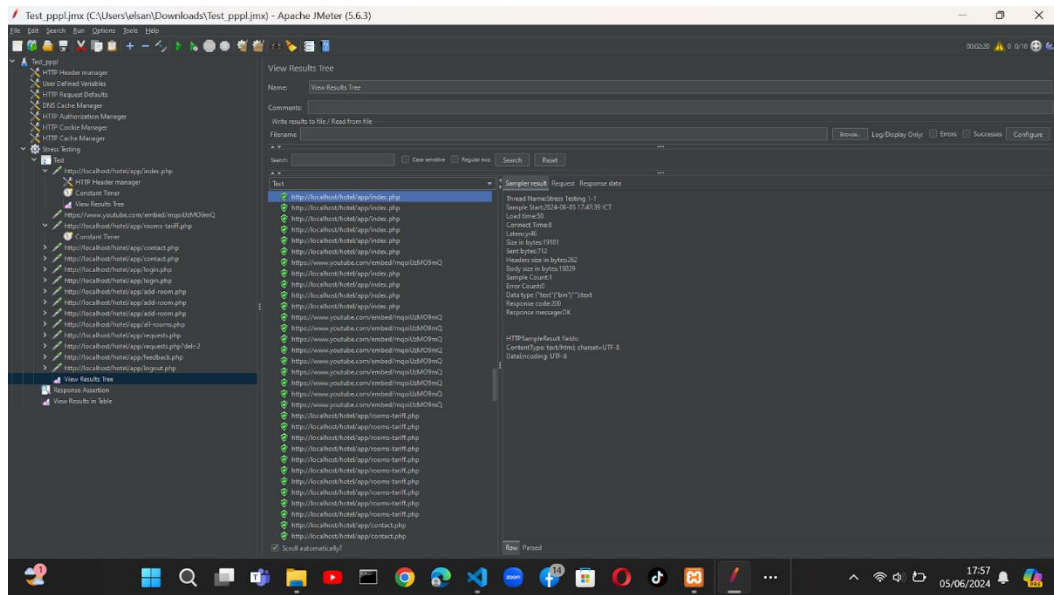
Response code 200 : OK (test passed)

Hasil

The screenshot shows the 'View Results in Table' window in Apache JMeter 5.6.3. The table displays the results of the test plan. The columns are: Sample #, Start Time, Thread Name, Label, Sample Time(ms), Status, Bytes, Send Bytes, Latency, and Connect Time(ms). The table contains 33 rows of data, all with a status of 'Success'.

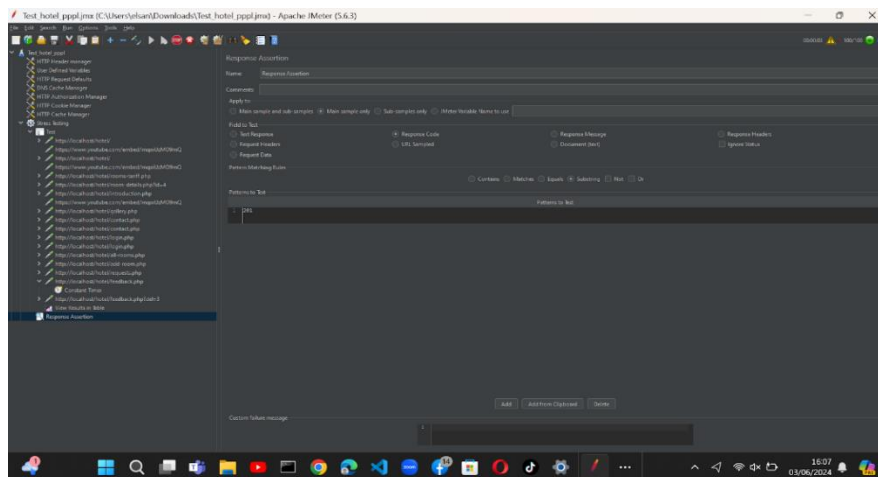
Sample #	Start Time	Thread Name	Label	Sample Time(ms)	Status	Bytes	Send Bytes	Latency	Connect Time(ms)
1	15/06-02:196	Thread Group 1-137	http://localhost/notes/	9134	Success	19377	548	7668	612
2	15/06-02:701	Thread Group 1-142	http://localhost/notes/	8370	Success	19377	548	6963	4
3	15/06-03:133	Thread Group 1-115	http://localhost/notes/	5848	Success	19377	548	5847	4
4	15/06-03:412	Thread Group 1-140	http://localhost/notes/	5979	Success	19377	548	5978	5
5	15/06-03:225	Thread Group 1-117	http://localhost/notes/	6136	Success	19377	548	6135	4
6	15/06-03:289	Thread Group 1-132	http://localhost/notes/	6105	Success	19377	548	6104	3
7	15/06-02:180	Thread Group 1-136	http://localhost/notes/	6207	Success	19377	548	7241	623
8	15/06-03:130	Thread Group 1-124	http://localhost/notes/	6283	Success	19377	548	6253	4
9	15/06-03:302	Thread Group 1-118	http://localhost/notes/	6099	Success	19377	548	6098	13
10	15/06-03:230	Thread Group 1-129	http://localhost/notes/	6172	Success	19377	548	6171	4
11	15/06-02:275	Thread Group 1-106	http://localhost/notes/	7127	Success	19377	548	7126	5
12	15/06-04:171	Thread Group 1-182	http://localhost/notes/	7232	Success	19377	548	7231	4
13	15/06-03:211	Thread Group 1-128	http://localhost/notes/	6196	Success	19377	548	6195	4
14	15/06-04:283	Thread Group 1-186	http://localhost/notes/	7124	Success	19377	548	7123	37
15	15/06-04:187	Thread Group 1-148	http://localhost/notes/	7221	Success	19377	548	7221	8
16	15/06-03:204	Thread Group 1-120	http://localhost/notes/	6208	Success	19377	548	6207	5
17	15/06-03:740	Thread Group 1-187	http://localhost/notes/	7670	Success	19377	548	7668	4
18	15/06-04:469	Thread Group 1-120	http://localhost/notes/	6844	Success	19377	548	6843	5
19	15/06-03:167	Thread Group 1-121	http://localhost/notes/	6230	Success	19377	548	6249	5
20	15/06-04:302	Thread Group 1-111	http://localhost/notes/	6915	Success	19377	548	6914	5
21	15/06-02:275	Thread Group 1-109	http://localhost/notes/	7142	Success	19377	548	7142	4
22	15/06-03:205	Thread Group 1-116	http://localhost/notes/	6419	Success	19377	548	6418	4
23	15/06-02:636	Thread Group 1-149	http://localhost/notes/	8804	Success	19377	548	5180	219
24	15/06-03:391	Thread Group 1-139	http://localhost/notes/	6058	Success	19377	548	6057	4
25	15/06-03:016	Thread Group 1-181	http://localhost/notes/	5362	Success	19377	548	5362	8
26	15/06-04:215	Thread Group 1-190	http://localhost/notes/	7284	Success	19377	548	7283	5
27	15/06-04:213	Thread Group 1-183	http://localhost/notes/	7266	Success	19377	548	7265	4
28	15/06-03:770	Thread Group 1-140	http://localhost/notes/	2704	Success	19377	548	2696	4
29	15/06-03:815	Thread Group 1-157	http://localhost/notes/	5680	Success	19377	548	5679	4
30	15/06-03:389	Thread Group 1-145	http://localhost/notes/	6119	Success	19377	548	6118	3
31	15/06-03:221	Thread Group 1-153	http://localhost/notes/	5812	Success	19377	548	5758	5
32	15/06-01:302	Thread Group 1-122	http://localhost/notes/	6185	Success	19377	548	6184	11
33	15/06-01:343	Thread Group 1-137	http://localhost/notes/	6204	Success	19377	548	6203	4

Hasil pada home page



Response code found (302)

C. Penambahan assertion code 201 (gagal)



Hasil

Sample #	Start Time	Thread Name	Label	Sample Time(s)	Status	Bytes	Sent Bytes	Latency	Connect Time(s)
1	15:57:02.012	Stress Testing 1-3	http://localhost/hotel/	1007	Success	2621	548	1007	3
2	15:57:01.936	Stress Testing 1-6	http://localhost/hotel/	1010	Success	2621	548	1009	3
3	15:57:01.946	Stress Testing 1-7	http://localhost/hotel/	935	Success	2621	548	935	3
4	15:57:01.025	Stress Testing 1-5	http://localhost/hotel/	1030	Success	2621	548	1030	3
5	15:57:01.818	Stress Testing 1-3	http://localhost/hotel/	366	Success	85083	513	262	183
6	15:57:01.712	Stress Testing 1-2	http://localhost/hotel/	1796	Success	2621	548	1796	10
7	15:57:01.705	Stress Testing 1-8	http://localhost/hotel/	475	Success	85776	513	375	207
8	15:57:01.518	Stress Testing 1-7	http://localhost/hotel/	526	Success	86201	513	388	208
9	15:57:01.288	Stress Testing 1-5	http://localhost/hotel/	486	Success	85759	513	326	251
10	15:57:01.312	Stress Testing 1-2	http://localhost/hotel/	427	Success	85862	513	279	201
11	15:57:01.748	Stress Testing 1-12	http://localhost/hotel/	1718	Success	2621	548	1718	4
12	15:57:01.437	Stress Testing 1-9	http://localhost/hotel/	1082	Success	2621	548	1080	3
13	15:57:01.471	Stress Testing 1-12	http://localhost/hotel/	342	Success	86841	513	271	182
14	15:57:01.031	Stress Testing 1-15	http://localhost/hotel/	1802	Success	2621	548	1802	3
15	15:57:01.233	Stress Testing 1-17	http://localhost/hotel/	1768	Success	2621	548	1768	3
16	15:57:01.822	Stress Testing 1-4	http://localhost/hotel/	2113	Success	2621	548	2113	3
17	15:57:01.551	Stress Testing 1-10	http://localhost/hotel/	2186	Success	2621	548	2186	4
18	15:57:01.821	Stress Testing 1-19	http://localhost/hotel/	354	Success	86280	513	254	168
19	15:57:01.818	Stress Testing 1-15	http://localhost/hotel/	423	Success	85746	513	381	188
20	15:57:01.622	Stress Testing 1-17	http://localhost/hotel/	390	Success	85797	513	284	206
21	15:57:01.041	Stress Testing 1-4	http://localhost/hotel/	411	Success	86073	513	310	211
22	15:57:01.466	Stress Testing 1-19	http://localhost/hotel/	394	Success	85942	513	322	212
23	15:57:01.023	Stress Testing 1-1	http://localhost/hotel/	488	Success	2621	548	488	9
24	15:57:01.842	Stress Testing 1-13	http://localhost/hotel/	3587	Success	2621	548	3587	3
25	15:57:01.117	Stress Testing 1-1	http://localhost/hotel/	364	Success	85887	513	276	195
26	15:57:01.717	Stress Testing 1-2	http://localhost/hotel/	2621	Success	2621	548	2601	3
27	15:57:01.433	Stress Testing 1-13	http://localhost/hotel/	416	Success	86444	513	246	177
28	15:57:01.444	Stress Testing 1-11	http://localhost/hotel/	4213	Success	2621	548	4213	2
29	15:57:01.521	Stress Testing 1-22	http://localhost/hotel/	381	Success	86573	513	303	206
30	15:57:01.861	Stress Testing 1-11	http://localhost/hotel/	338	Success	85803	513	281	198
31	15:57:01.021	Stress Testing 1-23	http://localhost/hotel/	3217	Success	2621	548	3217	3
32	15:57:01.242	Stress Testing 1-23	http://localhost/hotel/	345	Success	85722	513	284	185
33	15:57:01.093	Stress Testing 1-24	http://localhost/hotel/	2021	Success	2621	548	2021	3

Error karena tidak sesuai dengan permintaan default Http (200)

Hasil error pada mainpage

Sample #	Start Time	Thread Name	Label	Sample Time(s)	Status	Bytes	Sent Bytes	Latency	Connect Time(s)
1	18:10:02.012	Stress Testing 1-3	http://localhost/hotel/	1007	Success	2621	548	1007	3
2	18:10:01.936	Stress Testing 1-6	http://localhost/hotel/	1010	Success	2621	548	1009	3
3	18:10:01.946	Stress Testing 1-7	http://localhost/hotel/	935	Success	2621	548	935	3
4	18:10:01.025	Stress Testing 1-5	http://localhost/hotel/	1030	Success	2621	548	1030	3
5	18:10:01.818	Stress Testing 1-3	http://localhost/hotel/	366	Success	85083	513	262	183
6	18:10:01.712	Stress Testing 1-2	http://localhost/hotel/	1796	Success	2621	548	1796	10
7	18:10:01.705	Stress Testing 1-8	http://localhost/hotel/	475	Success	85776	513	375	207
8	18:10:01.518	Stress Testing 1-7	http://localhost/hotel/	526	Success	86201	513	388	208
9	18:10:01.288	Stress Testing 1-5	http://localhost/hotel/	486	Success	85759	513	326	251
10	18:10:01.312	Stress Testing 1-2	http://localhost/hotel/	427	Success	85862	513	279	201
11	18:10:01.748	Stress Testing 1-12	http://localhost/hotel/	1718	Success	2621	548	1718	4
12	18:10:01.437	Stress Testing 1-9	http://localhost/hotel/	1082	Success	2621	548	1080	3
13	18:10:01.471	Stress Testing 1-12	http://localhost/hotel/	342	Success	86841	513	271	182
14	18:10:01.031	Stress Testing 1-15	http://localhost/hotel/	1802	Success	2621	548	1802	3
15	18:10:01.233	Stress Testing 1-17	http://localhost/hotel/	1768	Success	2621	548	1768	3
16	18:10:01.822	Stress Testing 1-4	http://localhost/hotel/	2113	Success	2621	548	2113	3
17	18:10:01.551	Stress Testing 1-10	http://localhost/hotel/	2186	Success	2621	548	2186	4
18	18:10:01.821	Stress Testing 1-19	http://localhost/hotel/	354	Success	86280	513	254	168
19	18:10:01.818	Stress Testing 1-15	http://localhost/hotel/	423	Success	85746	513	381	188
20	18:10:01.622	Stress Testing 1-17	http://localhost/hotel/	390	Success	85797	513	284	206
21	18:10:01.041	Stress Testing 1-4	http://localhost/hotel/	411	Success	86073	513	310	211
22	18:10:01.466	Stress Testing 1-19	http://localhost/hotel/	394	Success	85942	513	322	212
23	18:10:01.023	Stress Testing 1-1	http://localhost/hotel/	488	Success	2621	548	488	9
24	18:10:01.842	Stress Testing 1-13	http://localhost/hotel/	3587	Success	2621	548	3587	3
25	18:10:01.117	Stress Testing 1-1	http://localhost/hotel/	364	Success	85887	513	276	195
26	18:10:01.717	Stress Testing 1-2	http://localhost/hotel/	2621	Success	2621	548	2601	3
27	18:10:01.433	Stress Testing 1-13	http://localhost/hotel/	416	Success	86444	513	246	177
28	18:10:01.444	Stress Testing 1-11	http://localhost/hotel/	4213	Success	2621	548	4213	2
29	18:10:01.521	Stress Testing 1-22	http://localhost/hotel/	381	Success	86573	513	303	206
30	18:10:01.861	Stress Testing 1-11	http://localhost/hotel/	338	Success	85803	513	281	198
31	18:10:01.021	Stress Testing 1-23	http://localhost/hotel/	3217	Success	2621	548	3217	3
32	18:10:01.242	Stress Testing 1-23	http://localhost/hotel/	345	Success	85722	513	284	185
33	18:10:01.093	Stress Testing 1-24	http://localhost/hotel/	2021	Success	2621	548	2021	3

3. SPIKE TESTING

Spike testing merupakan pengujian kinerja di mana aplikasi diuji dengan lonjakan beban yang tiba-tiba dan drastis dalam waktu singkat. Tujuan dari spike testing adalah untuk mengetahui bagaimana aplikasi menangani beban puncak yang tiba-tiba dan apakah aplikasi dapat pulih dengan cepat setelah lonjakan tersebut.

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.

Total dari keseluruhan proses spike test yaitu:

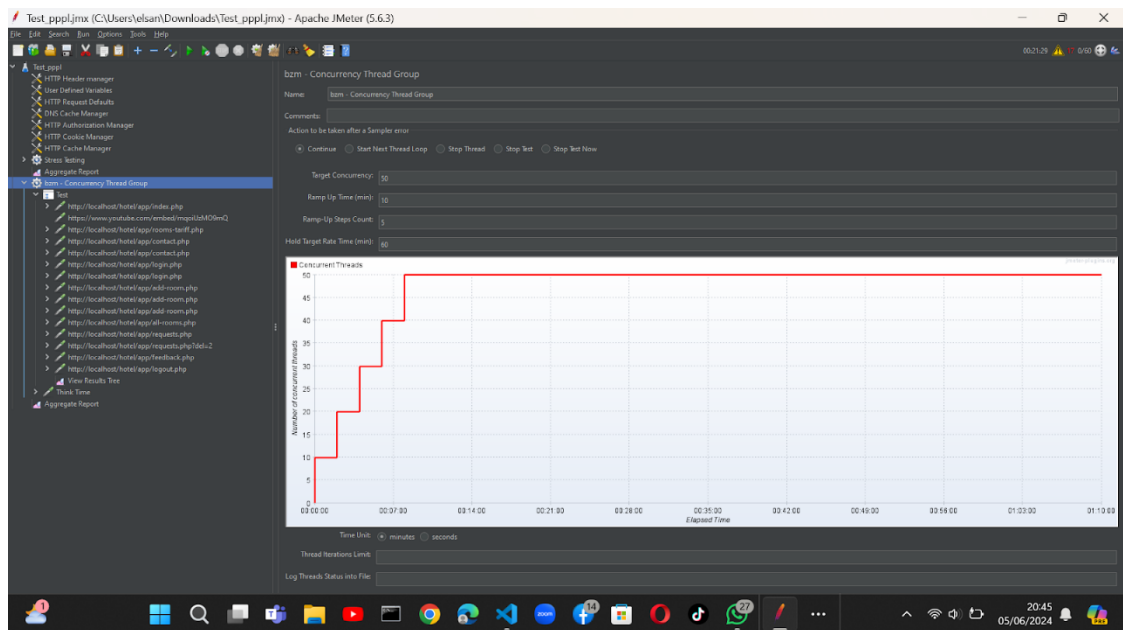
- Memiliki rata rata waktu respon adalah 2947 ms
- Memiliki median (50% dari permintaan) yang selesai dalam 22304 ms atau kurang.
- 90% dari permintaan selesai dalam 36025 ms atau kurang.
- Min/Max merupakan waktu respon tercepat adalah 1 ms dan terlama adalah 454914 ms.
- Total Error % keseluruhan pada 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 Apache JMeter 5.6.3 interface with the 'Summary Report' table. The table lists the results of the test, including the number of samples, average, min, max, std. dev., error %, throughput, received Kbytes, sent Kbytes, and avg. bytes. The table is sorted by 'Label'.

Label	# Samples	Average	Min	Max	Std. Dev.	Error %	Throughput	Received Kbytes	Sent Kbytes	Avg. Bytes
http://localhost:hotel/app/index.php	152	603	26	5093	1130.71	0.00%	11.0/min	3.23	6.13	18082.6
http://www.youtube.com/embed/mqplabM0mC	152	4174	661	17049	2900.74	0.00%	10.0/min	16.86	6.09	95935.8
http://localhost:hotel/app/rooms/taff.php	142	2657	19	33944	3609.16	0.00%	9.6/min	1.22	6.08	11049.6
http://localhost:hotel/app/contact.php	276	1372	19	38935	3161.00	0.00%	10.0/min	2.44	6.10	3072.1
http://localhost:hotel/app/login.php	260	332	14	7477	1161.85	0.00%	22.6/min	3.59	6.32	9638.1
http://localhost:hotel/app/add-room.php	390	334	16	11694	1398.57	0.00%	30.5/min	5.56	6.34	11209.9
http://localhost:hotel/app/delete-room.php	130	870	24	7752	1076.30	0.00%	10.0/min	2.84	6.10	14154.4
http://localhost:hotel/app/requests.php	11	85610	12461	123537	41171.00	73.75%	1.7/min	926.69	6.00	5377063.6
http://localhost:hotel/app/requests.php	1	11633	11633	11633	0.00	0.00%	5.2/min	16405.35	6.05	19423660.0
http://localhost:hotel/app/feedback.php	1	826	826	826	0.00	0.00%	1.6/sec	1803.62	6.05	302020.0
http://localhost:hotel/app/logout.php	1	216	216	216	0.00	0.00%	4.6/sec	22.14	5.02	4898.0
Test	1	24678	24678	24678	0.00	0.00%	16.0/hour	1694.06	6.04	20147638.6
TOTAL	1517	1543	14	123537	8651.22	0.51%	1.6/sec	1246.57	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.