Load Testing Report
of
AGave

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Overview

Objective

To identify how the AGave system behaves under different levels of user activity, we've executed a load test with 10 Requests Per Second (RPS) and different durations, which allowed us to assess how the system responds to different workloads.

This report will contain the load test configurations that we've considered, the data that we'll be collecting & finally the outcome of different levels of load testing.

Load Test Configuration:

Response Rate

- 10 RPS

Time Intervals

- 10 mins
- 30 mins

System Configuration according to Production Server:
- CPU: 2 Core
- Ram : 8 Gb

Data Collection:

During the load test, various performance metrics have collected, including but not limited to:
- Response times for APIs.
- Throughput and APIs successful response rates.
- Error rates

TEST UNDER THIRTY (30) MINUTES

1.1 Test with 10 RPS and 250 Concurrent User

1.1.1 Execution Summary

Following is the summary of the load test performed with 10 RPS and 250 Concurrent User under 30 minutes:

Total Requests	18772	**Error/Request**	0/18772
Response Time(Avg)	0 ms	**Response Time(Min)**	0 ms

1.1.2 Observation Summary

- No fault found till 25 mins
- No error appeared after 30 minutes
- The system is working correctly as we've achieved our anticipated 10 TPS

1.1.3 Details

The following contains the activity report during the load test & also the performance details.

Estimated User Capacity	250
Maximized Users Analyzed	250
Start Time	14/10/2024 12：53：08 PM
End Time	14/10/2024 01：03：05 PM
Duration	30 min
Total Hits	18772
Peak hits/ms	600/ms
Total Failed Hits	0
RPS	10.04

Received KB/sec	31.46
Sent KB/sec	3.39

1.1.4 Summary Report

The summary is the one kind of dashboard perspective on the test while the test is pursued and it has wrapped up. The Summary Report will show up when the test begins to gather Information.

Label	Sample	Average	Min	Max	Std.Dev	Error%	Through put	Received KB/sec	Sent KB/sec	Avg. Bytes
Email Login	9451	126	88	597	56.53	0.000	5.2	4.14	1.47	808.1
User Product List	9321	53	13	401	37.09	0.000	7.0	37.12	2.61	5414.4

1.1.5 Output Graph

Aggregate Graph:
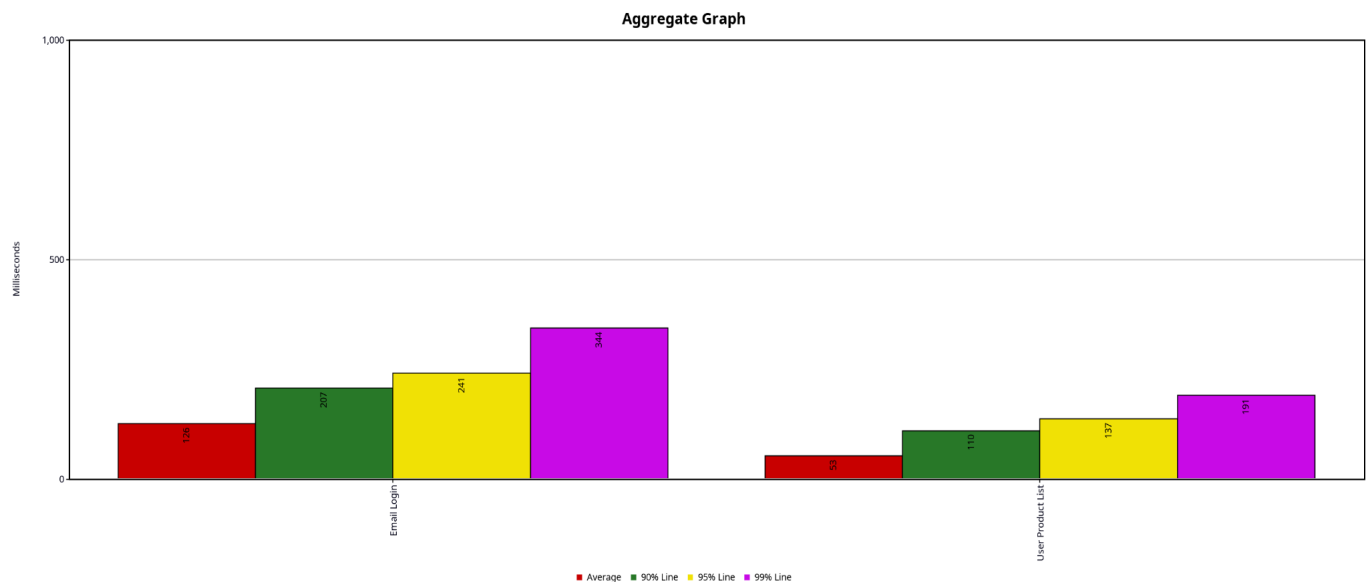
1.1.6 Response Time Over Time

Response Time Over Time Graph:
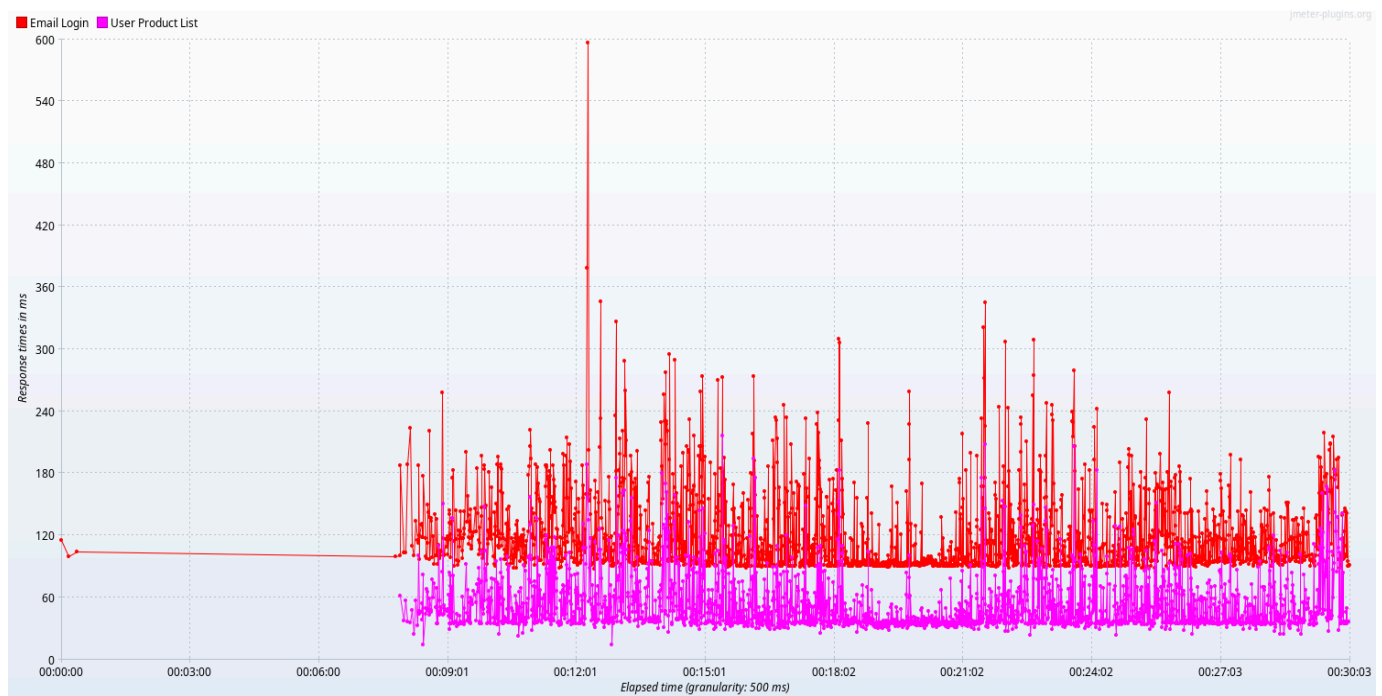
1.2 Test with 10 RPS and 330 Concurrent User

1.2.1 Execution Summary

Following is the summary of the load test performed with 10 RPS and 330 Concurrent User under 30 minutes:

Total Requests	17536	Error/Request	0/17536
Response Time(Avg)	90 ms	Response Time(Min)	0 ms

1.2.2 Observation Summary

- No fault found till 25 mins
- No error appeared after 30 minutes
- The system is working correctly but there are small amounts of errors in the Email Login API and User Product . So, the target tps 10 wasn't achieved and it's 9.7 in our testing which is close to 10

1.2.3 Details

The following contains the activity report during the load test & also the performance details.

Estimated User Capacity	330
Maximized Users Analyzed	330
Start Time	14/10/2024 03：30：37 PM
End Time	14/10/2024 04：00：04 PM
Duration	30 min
Total Hits	17536
Peak hits/ms	355/ms
Total Failed Hits	0
RPS	9.7
Received KB/sec	29.37
Sent KB/sec	3.17

1.2.4 Summary Report

The summary is the one kind of dashboard perspective on the test while the test is pursued and it has wrapped up. The Summary Report will show up when the test begins to gather Information.

| Label	Sample	Average	Min	Max	Std.Dev	Error%	Through put	Received KB/sec	Sent KB/sec	Avg. Bytes
Email Login	8842	129	88	433	58.01	0.00	4.9	3.87	1.38	808.3
User Produ ct List	8694	51	12	318	34.93	0.00	4.9	25.65	1.80	541 4.3

1.2.5 Output Graph

<u>Aggregate Graph:</u>
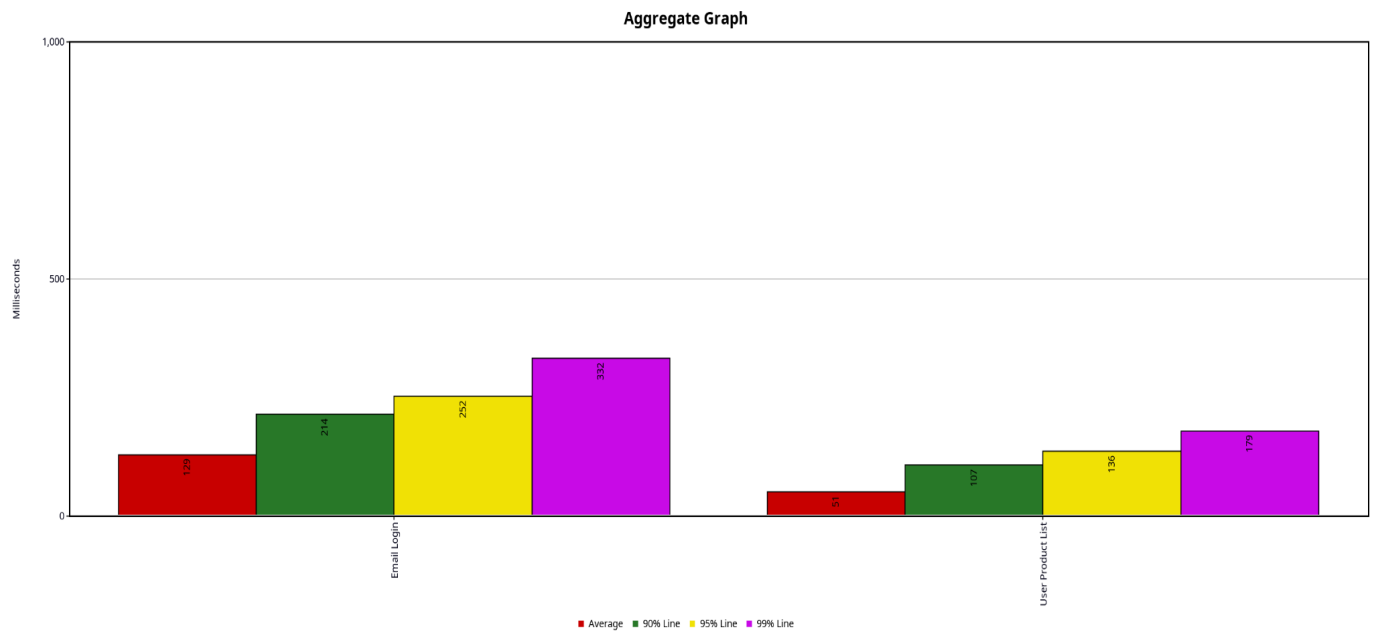
1.2.6 Response Time Over Time

<u>Response Time Over Time Graph:</u>
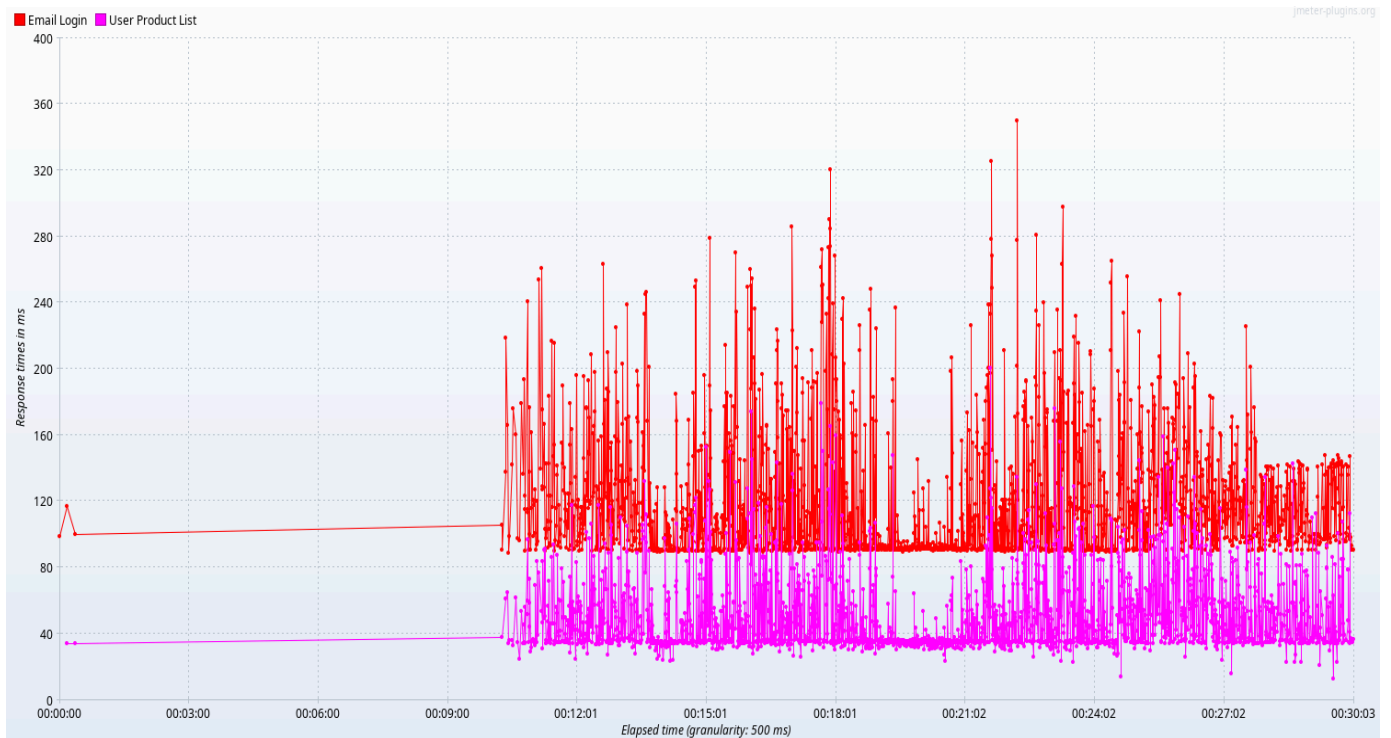
1.3 Test with 10 RPS and 500 Concurrent User

1.3.1 Execution Summary

Following is the summary of the load test performed with 10 RPS and 500 Concurrent User under 30 minutes:

Total Requests	13460	**Error/Request**	0/13460
Response Time(Avg)	90 ms	**Response Time(Min)**	0 ms

1.3.2 Observation Summary

- No fault found till 25 mins
- No error appeared after 30 minutes
- The system is working correctly but there are small amounts of errors in the Email Login API and User Product . So, the target tps 10 wasn't achieved and it's 7.46 in our testing

1.3.3 Details

The following contains the activity report during the load test & also the performance details.

|	
Estimated User Capacity	500
Maximized Users Analyzed	500
Start Time	14/10/2024 05：35：32 PM
End Time	14/10/2024 06：05：04 PM
Duration	30 min
Total Hits	13460
Peak hits/ms	400/ms
Total Failed Hits	0
RPS	7.46
Received KB/sec	22.43
Sent KB/sec	2.43

1.3.4 Summary Report

The summary is the one kind of dashboard perspective on the test while the test is pursued and it has wrapped up. The Summary Report will show up when the test begins to gather Information.

Label	Sample	Average	Min	Max	Std.Dev	Error%	Through put	Received KB/sec	Sent KB/sec	Avg. Bytes
Email Login	6831	127	88	622	62.36	0.015	3.78	2.99	1.07	808.6
User Produ ct List	6629	51	13	385	36.83	0.015	3.72	19.69	1.38	5414.6

1.3.5 Output Graph

Aggregate Graph:
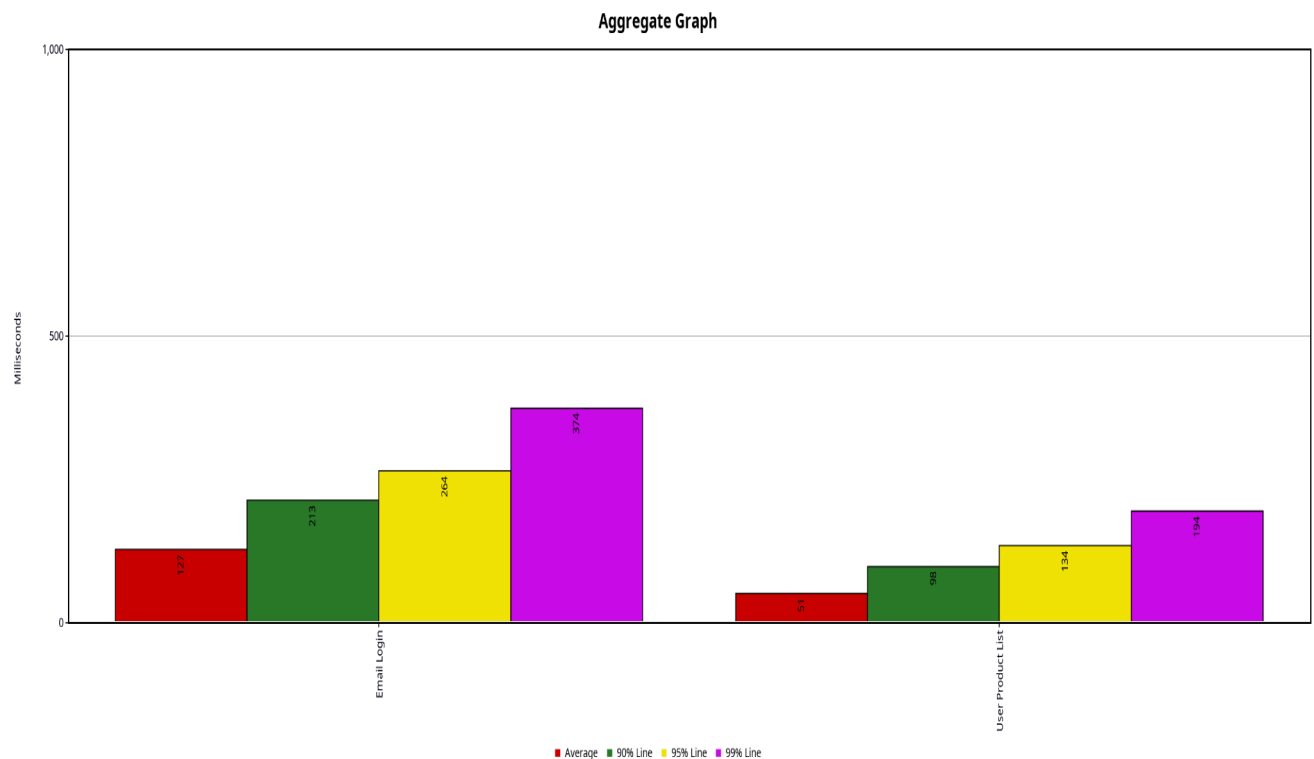
1.3.6 Response Time Over Time

Response Time Over Time Graph:
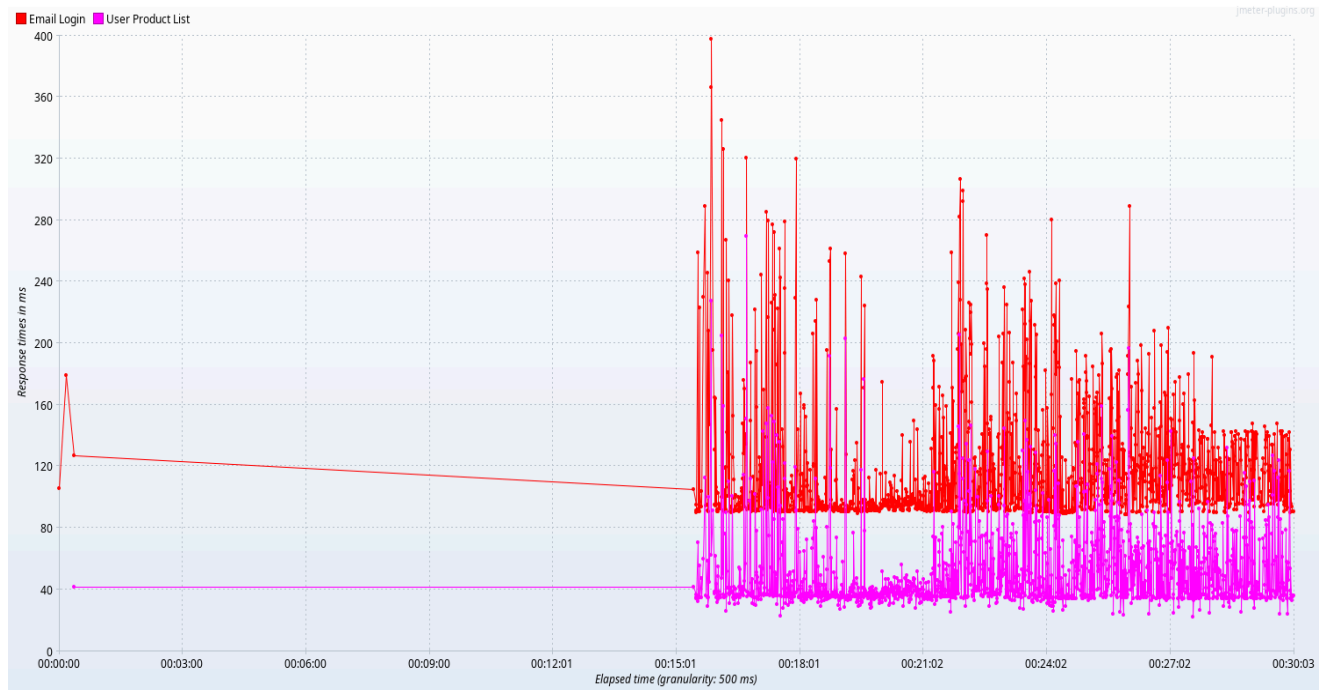
TEST UNDER TEN (10) MINUTES

2.1 Test with 10 RPS and 250 Concurrent User

2.1.1 Execution Summary

Following is the summary of the load test performed with 10 RPS and 250 Concurrent User under 10 minutes:

Total Requests	6337	Error/Request	0/6337
Response Time(Avg)	91 ms	Response Time(Min)	0 ms

2.1.2 Observation Summary

- No fault found till 5 mins
- No error appeared after 10 minutes
- The system is working correctly as we've achieved our anticipated 10 TPS

2.1.3 Details

The following contains the activity report during the load test & also the performance details.

|	
Estimated User Capacity	250
Maximized Users Analyzed	250
Start Time	14/10/2024 11:41:00 AM
End Time	14/10/2024 11:51:05 AM
Duration	10 min
Total Hits	6337
Peak hits/ms	490/ms
Total Failed Hits	0
RPS	10.5
Received KB/sec	31.51
Sent KB/sec	3.42

2.1.4 Summary Report

The summary is the one kind of dashboard perspective on the test while the test is pursued and it has wrapped up. The Summary Report will show up when the test begins to gather Information

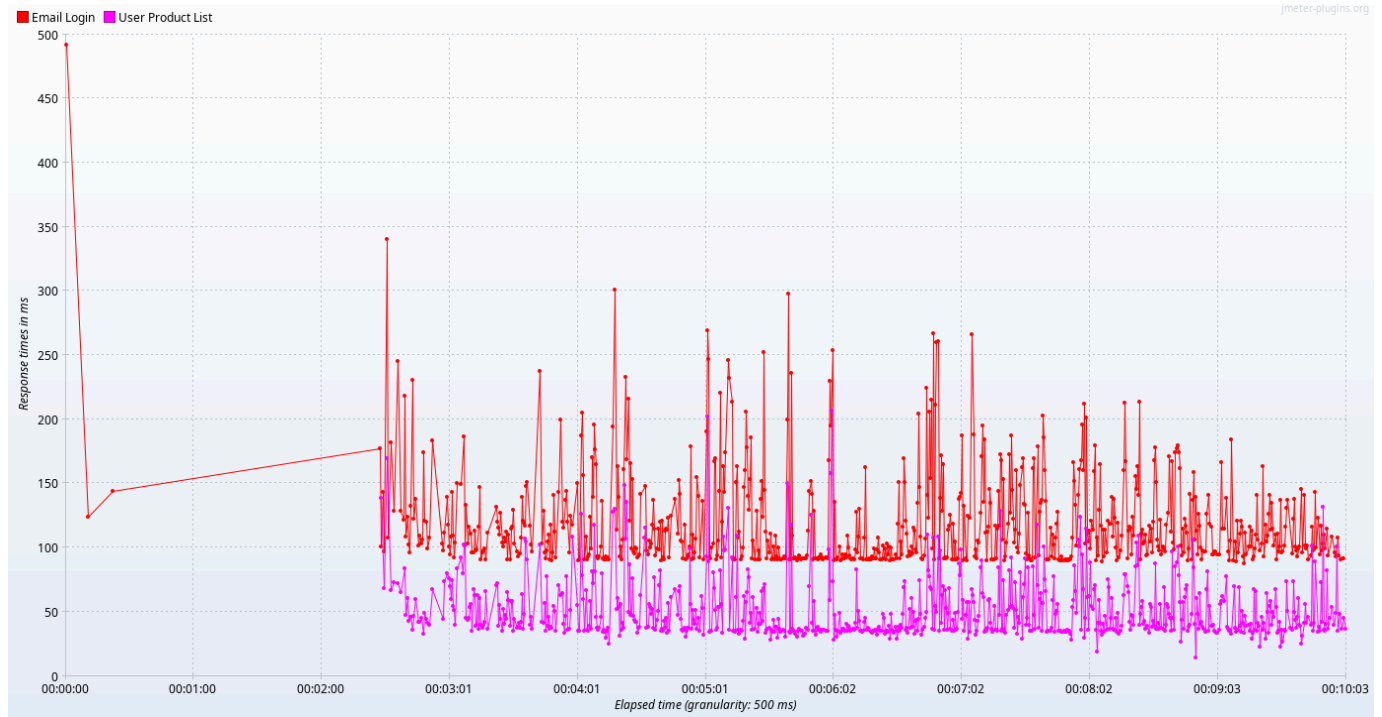| Label	Sample	Average	Min	Max	Std.Dev	Error%	Through put	Received KB/sec	Sent KB/sec	Avg. Byte s
Email Login	3222	127	88	492	56.59	0.000	5.3	4.22	1.50	808. 1
User Produ ct List	3115	53	13	353	36.51	0.000	6.8	36.21	2.54	541 6.2

2.1.5 Output Graph

Aggregate Graph:
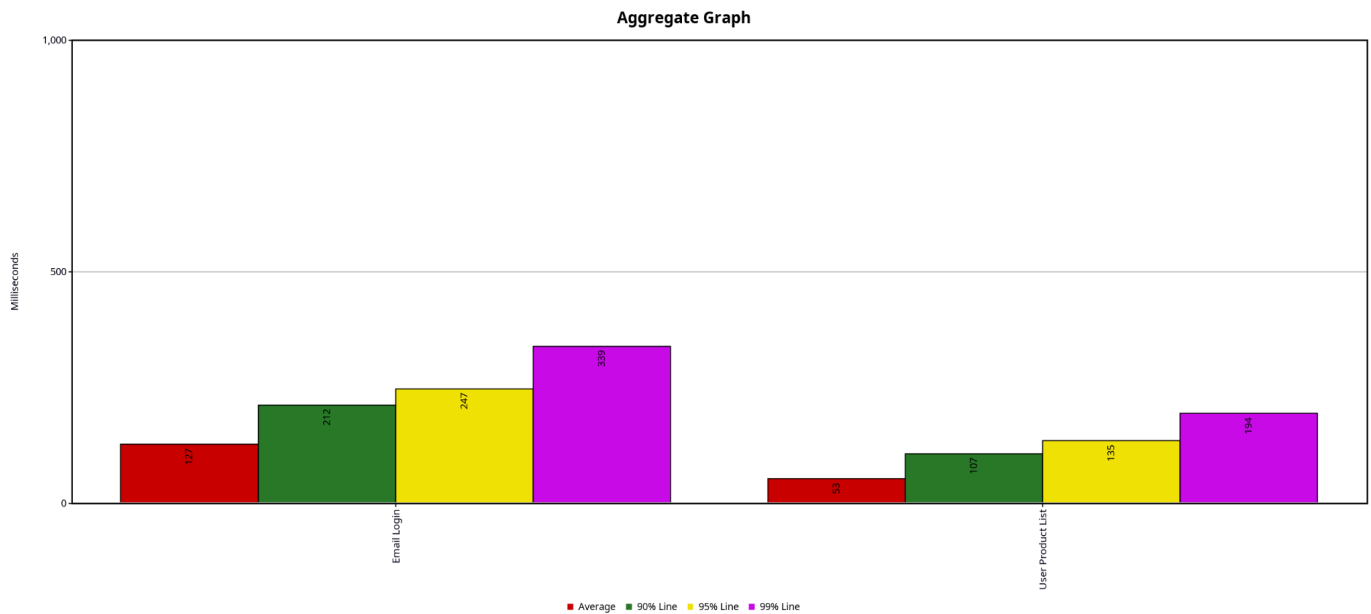
2.1.6 Response Time Over Time

Response Time Over Time Graph:

2.2 Test with 10 RPS and 330 Concurrent User

2.2.1 Execution Summary

Following is the summary of the load test performed with 10 RPS and 330 Concurrent User under 10 minutes:

Total Requests	6049	Error/Request	0/6049
Response Time(Avg)	94 ms	Response Time(Min)	0 ms

2.2.2 Observation Summary

- No fault found till 5 mins
- No error appeared after 10 minutes
- The system is working correctly as we've achieved our anticipated 10 TPS

2.2.3 Details

The following contains the activity report during the load test & also the performance details.

|	
Estimated User Capacity	330
Maximized Users Analyzed	330
Start Time	14/10/2024 02:17:42 PM
End Time	14/10/2024 02:27:04 PM
Duration	10 min
Total Hits	6049
Peak hits/ms	323/ms
Total Failed Hits	0
RPS	10.00
Received KB/sec	29.94
Sent KB/sec	3.26

2.2.4 Summary Report

The summary is the one kind of dashboard perspective on the test while the test is pursued and it has wrapped up. The Summary Report will show up when the test begins to gather Information

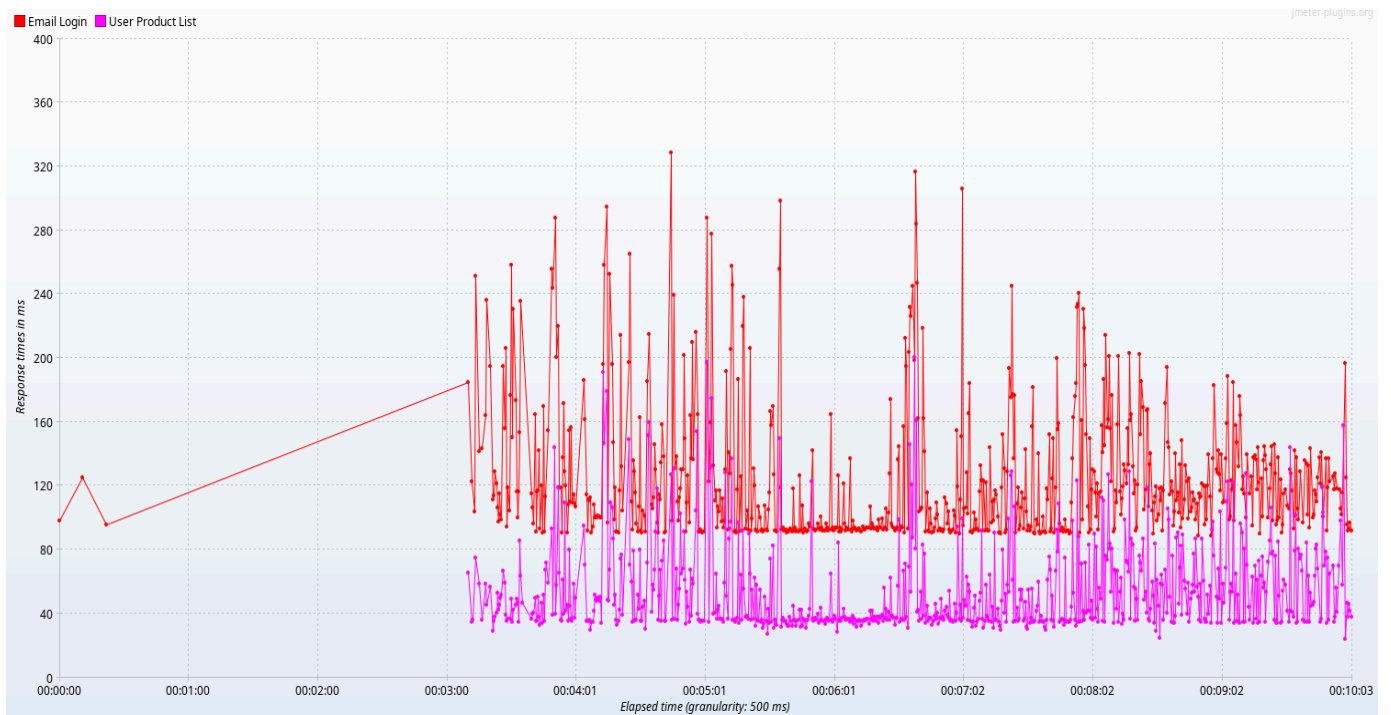| Label	Sample	Average	Min	Max	Std.Dev	Error%	Through put	Received KB/sec	Sent KB/sec	Avg. Bytes
Email Login	3100	133	89	482	64.29	0.000	5.1	4.06	1.45	808.3
User Produ ct List	2949	54	13	406	40.58	0.000	7.2	37.88	2.66	5421.1

2.2.5 Output Graph

Aggregate Graph:
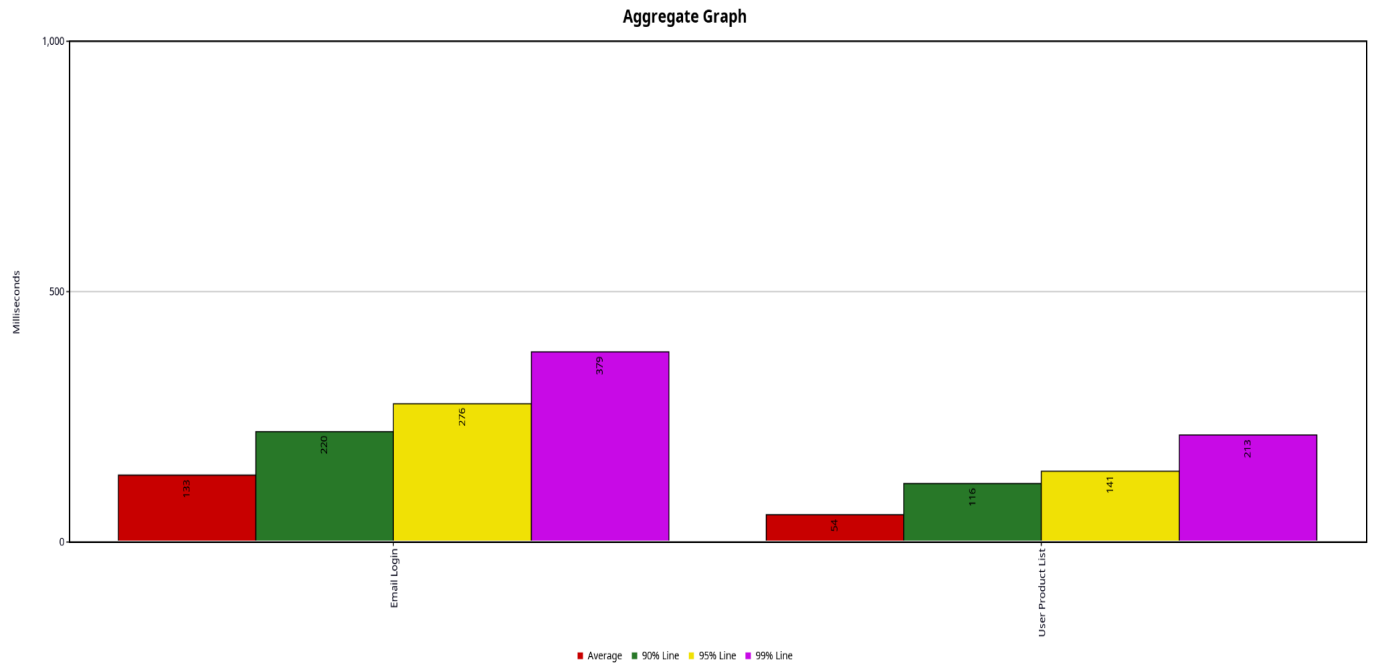
2.2.6 Response Time Over Time

Response Time Over Time Graph:

2.3 Test with 10 RPS and 500 Concurrent User

2.3.1 Execution Summary

Following is the summary of the load test performed with 10 RPS and 500 Concurrent User under 10 minutes:

Total Requests	4795	Error/Request	0/4795
Response Time(Avg)	90 ms	Response Time(Min)	0 ms

2.3.2 Observation Summary

- No fault found till 5 mins
- No error appeared after 10 minutes
- The system is working correctly but the target tps 10 wasn't achieved but it's 8.0 in our testing

2.3.3 Details

The following contains the activity report during the load test & also the performance details.

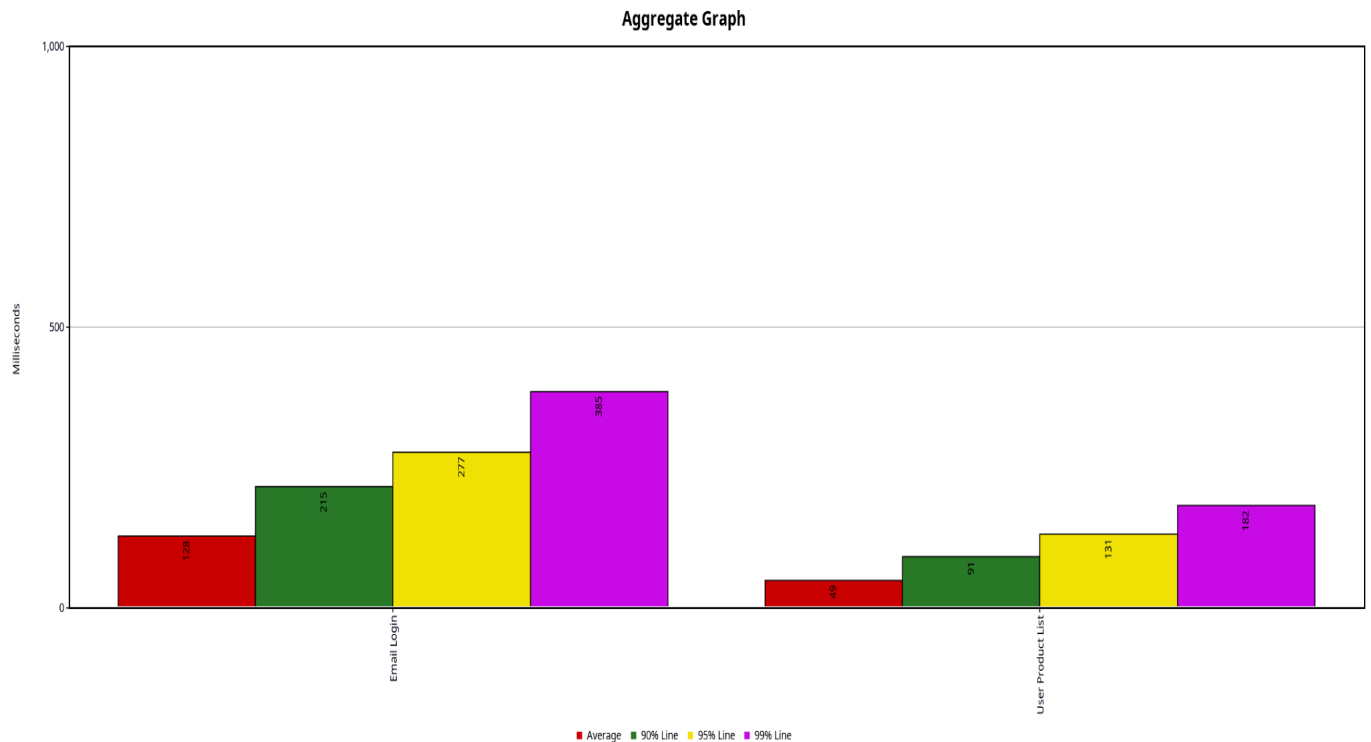|	
Estimated User Capacity	500
Maximized Users Analyzed	500
Start Time	14/10/2024 04:18:21 PM
End Time	14/10/2024 04:28:05 PM
Duration	10 min
Total Hits	4795
Peak hits/ms	318/ms
Total Failed Hits	0
RPS	8.0
Received KB/sec	23.38
Sent KB/sec	2.58

2.3.4 Summary Report

The summary is the one kind of dashboard perspective on the test while the test is pursued and it has wrapped up. The Summary Report will show up when the test begins to gather Information

Label	Sample	Average	Min	Max	Std.Dev	Error%	Through put	Received KB/sec	Sent KB/sec	Avg. Bytes
Email Login	2505	128	88	476	64.02	0.000	4.2	3.28	1.17	808.5
User Produ ct List	2290	49	13	324	33.68	0.000	3.9	20.52	1.44	5419.6

2.3.5 Output Graph

Aggregate Graph:

2.3.6 Response Time Over Time

Response Time Over Time Graph: