LOAD TEST REPORT

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Test scenario

A list of top time consuming web services has been chosen from jamahook homepage for load testing and they are as following:

- Token generation
- Get Identity
- Get by SQL
- Get files
- Get Filtered Complex
- Get Connection
- Get Navigation
- Notification

So our test criteria will be as following:

Total request:	8 requests
Thread count:	1000
Ramp-up Time:	15 seconds
Test Type:	Jmeter

To sum up, 1000 user will hit jamahook web server with above mentioned 8 requests within a time period of 15 seconds.

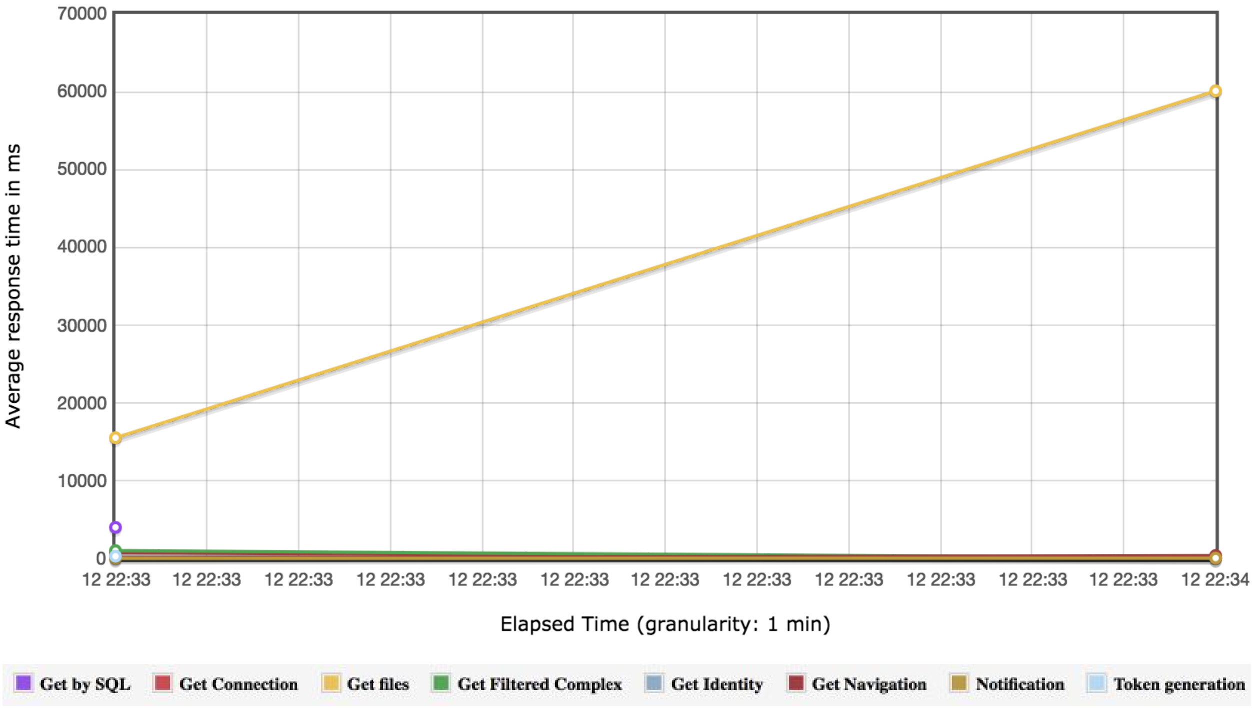
Test report analysis

After executing the load testing scenario using Jmeter, a detailed report has been generated. Generated report can be download from here and then open index.html to see detailed report. However, the summary is given below:

Avg. Throughput	**Avg. Response Time**	**Error Rate**
97.52	7931.70	11.91
Hits/s	**Milliseconds**	**%**

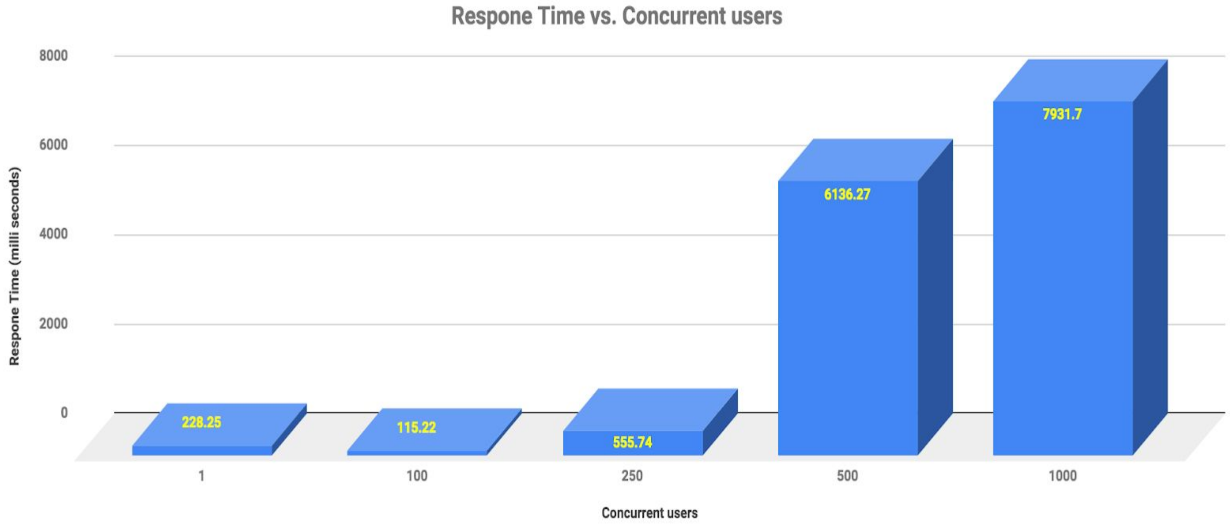
Response time should be as low as possible, **ideally it should be less than 1 second (Standard response time)**. Before executing the test, **average response time was .23 seconds for a single thread**, but as per above result average response time for our scenario is 7.9 seconds which is way more than 1 second. So response time would need to be improved for better performance in high traffic situation. Also notice the error rates which is 11.91%. This means almost 12 users out 100 will be affected and might not be able to access application. This also indicates that jamahook's poor perform during heavy traffic.

Response time in Graph



Above graph explains which services are impacting on overall response time. API for Get Files's response time increases over time and thus increases overall average response time.

In order to display how response time of jamahook homepage evolve with different number of concurrent users, we perform load testing with thread count (total number of users) of 100, 250, 500 and then 1000 within a period of 15s. The result is given in the below charts. The results explain clearly response time increases with the increase in concurrent users. The application perform certainly better 100



and 250 concurrent users, but when the number reached to 500, there noticeable jump in response time which increases even further more for 1000 users. Response time should be as low as possible, ideally it should be less than 1 seconds. Just to give an example, Amazon found every 100ms costs them 1% in sales, which translates to several millions of dollars lost.

Top 5 Slow Responses

	Error %	Avg. Response time	Max response time	Throughput
Get Files	95.00%	57892.44	61284	Dec 85
Get by SQL	0.00%	4065.66	6622	54.2
Get Navigation	0.00%	426.86	1449	15.7
Token Generation	0.00%	357.96	6282	70.56
Get Identity	0.00%	260.07	1541	65.98

TOP 5 ERRORS

Sampler	Type of error	Number of errors	% in errors	% in all samples
Get Files	504/Gateway Time-out	950	99.69	0.1188
Notification	403/Forbidden	3	0.31	0.0004

Response Analysis

Request	Response Analysis
Get Files	As per the result, 99% error is causing because of Get Files services and the type of error is 504 HTTP Bad Gateway Timeout. It clearly indicates to a server side connection issue. It occurs when when one server failed to make connection with another server. So this issue needs to troubleshoot and fix it.
Notification	Notifications service is failing in very few cases and it gives 403 Forbidden error. It needs to investigate the actual reason which is causing it. The simple reason why we are seeing this error is because you are trying to access something you don’t have the permission to. Throwing a 403 forbidden error is your website’s way of stating that you don’t have enough permissions to proceed further.

GLOSSARY

Throughput: Number of requests completed in a time interval.
Response Time: The time that passed to perform the request and receive full response.
Bandwidth Usage: Amount of the network traffic that goes through network infrastructure.