Mindtree

Performance Test Report For Execution of 6 months Slot availability Batch Job

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Summary

This report presents the observations and findings of the 6 months slot availability batch job and load test conducted for a load of 150 users, which will make booking appointments after executing 6 months Slot availability batch jobs running for a duration of 1 hour.

The objective of this load test was to observe and record the behavior of the application when users are booking appointments after executing slot availability for 6 months.

Below are the scenario details:

Sprint/Report Name	Booking appointments after executing slot availability batch job for 6 months (182 days)
Run Date	20-June-2019
Period	10:47 AM to 11:50 AM (UTC)
Number of concurrent users	150
Ramp up	4 min
Run Duration	60 minutes
Ramp down	2 min

Batch Job execution details:

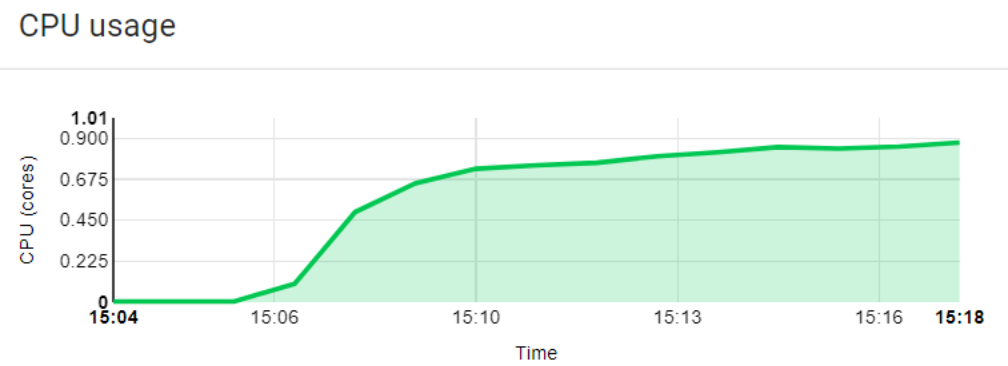
Executed slot availability batch job for 6 months and verified in the DB as well after creation of slots for 6 months, below are the details:

instance_id	Create_Time	Start_Time	End_Time	Execution Time	Status	Slots available (DB)	Days (DB)
1116	2019-06-20 09:36:49.9	2019-06-20 09:36:49.927	2019-06-20 10:43:29.308	**01:06:39**	Completed	73173	182

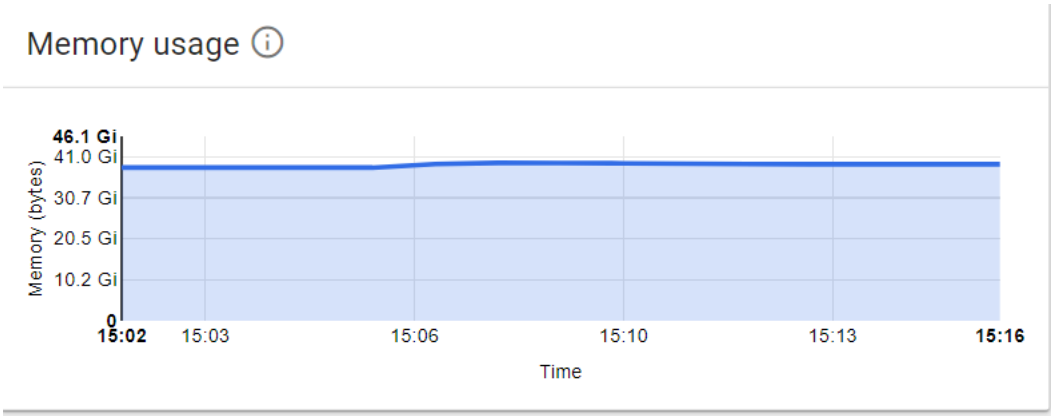
Slot availability batch job took **01:06:39** sec for executing 6 months. Batch job status is completed but its created 6 months slots. Verified the slots available in DB.

We have taken the CPU and memory utilization graphs of the slot availability batch job (pods), They are below:

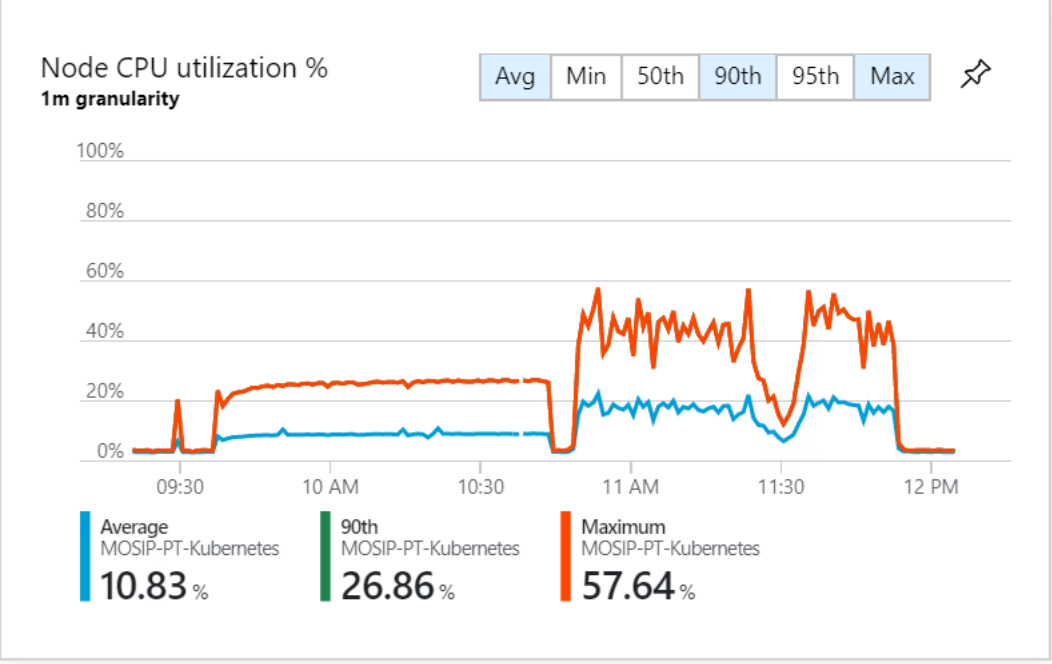
CPU Utilization:

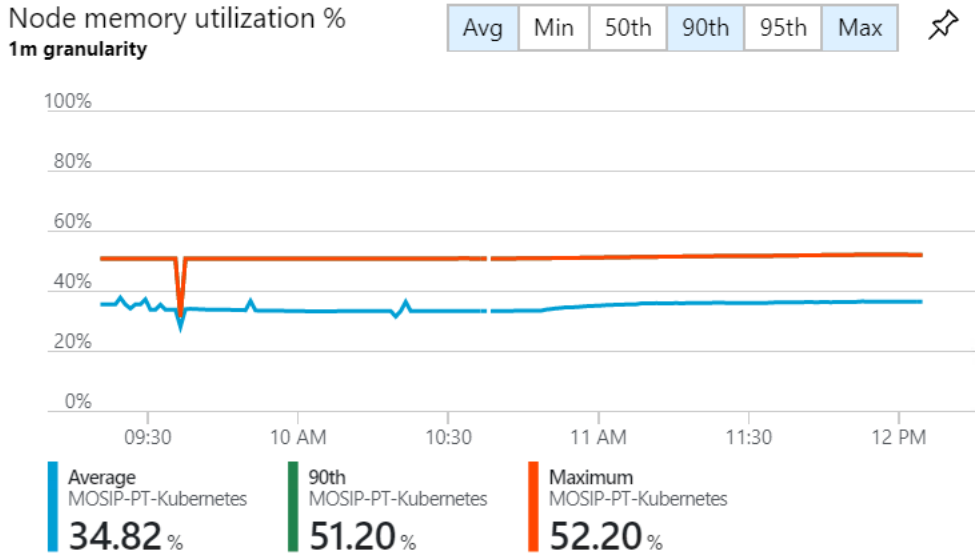


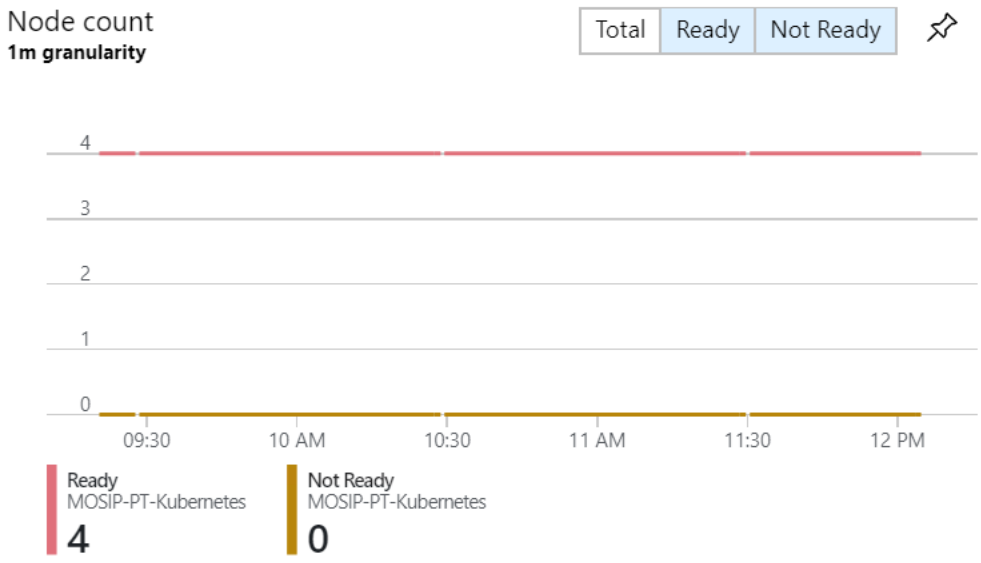
Memory utilization:



CPU and Memory utilization from Kubernates cluster:







After verifying, the slots available in DB for 6 months and In-order to create volume in the database executed the booking appointment full flow scenario script the Details are mentioned below:

The transaction response times:

Label	# Samples	Average (msec)	90% Line (msec)	Min (msec)	Max (msec)	Error %	Throughput (Sec)
mosip_preReg_homepage	2499	**59285**	130276	385	236165	0.32%	0.6413
mosip_preReg_send_otp	2480	416	453	15	3821	0.28%	0.63784
mosip_preReg_validate_otp	2463	197	203	159	2713	0.08%	0.63393
mosip_preReg_submit_demographics	2461	1106	1748	406	12385	0.24%	0.63587
mosip_preReg_upload_poi_document	2457	525	628	31	4579	**1.22%**	0.63505
mosip_preReg_upload_poa_document	2444	445	537	22	5355	0.41%	0.63227
mosip_open_preview_pageupload_poi_document	2440	15	19	8	533	0.08%	0.63152
mosip_preReg_open_regCeneter_selection_page	2440	158	154	49	5276	0.25%	0.63118
mosip_preReg_search_registration_center	2431	68	72	15	2511	0.29%	0.63498
mosip_preReg_open_book_appointment_page	2429	2304	3426	31	6977	0.29%	0.63416
mosip_preReg_book_appointment	2417	460	646	252	4672	0.58%	0.63098
mosip_preReg_logout	2390	**60546**	129944	727	237022	0.34%	0.62239

Performance Test Execution Details

We have executed the booking appointment user flow scenario script, which has transactions mentioned in above table.

Most of the transactions average response times are beyond SLA of **3** seconds, They are listed below:

1. Mosip_preReg_homepage – 59.285 sec
2. Mosip_preReg_logout- 60.546 sec

The error rate for all transactions is less than 1% except below request:
Uploading POI document -1.22%
Below is the error message:
[{"errorCode":"KER-FSA-001","message":"Exception occured in HDFS Adapter"}]}
Details will be shared to developers for further analysis based on request from team.

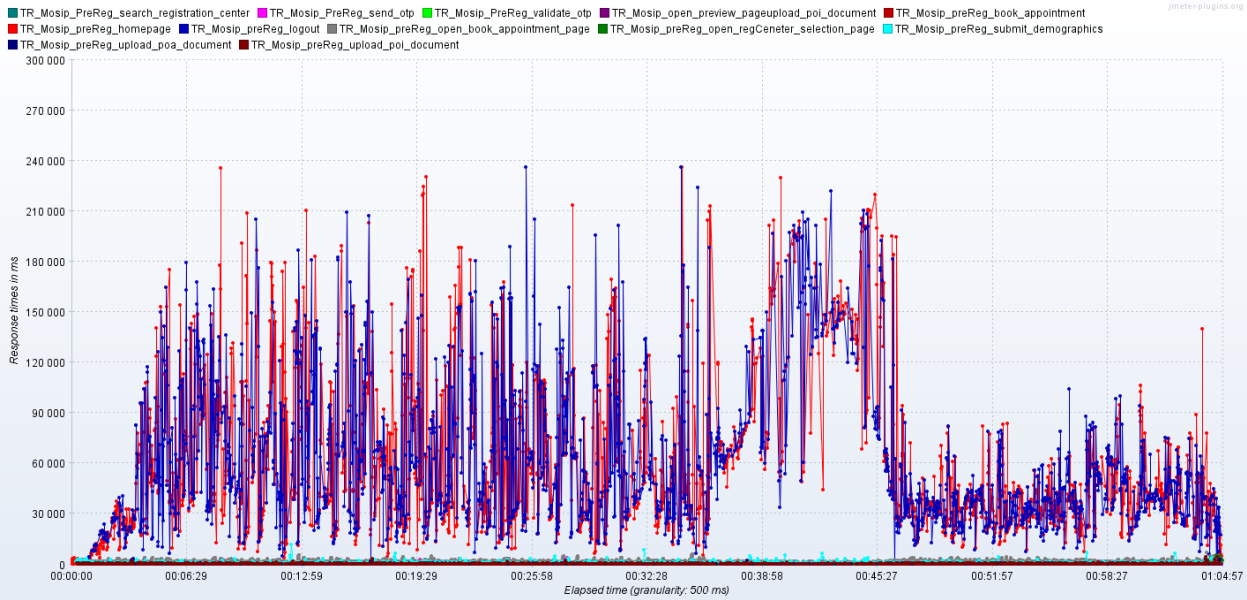
Test Environment

	Common proxy server (NGINX)	(Kubernets cluster) apache Tomcat 8.5.31	DB Postgress SQL 10.2
Number Of nodes	1	4	1
RAM	4 GB	112 GB	16GB
PROCESSOR	2 cores	16 core	4 cores

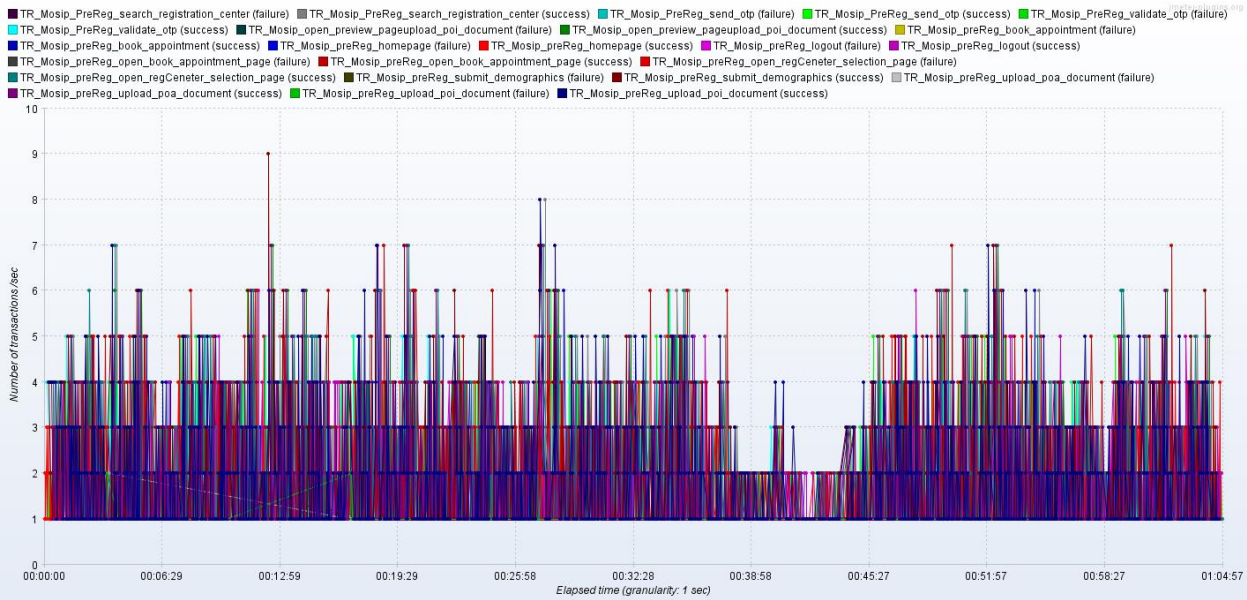
Response Time Graph

All the transactions average response times are within SLA of 3 seconds except below:

1. Mosip_preReg_homepage - 59.285 sec
2. Mosip_preReg_logout- 60.546 sec



Transactions per second:



Conclusion and Next Steps:

The Execution for 6 months slots availability is completed, the high response times and errors observed during 150 users load test which was executed for 1 hour steady period and similar issue is covered in the ticket https://mosipid.atlassian.net/browse/MOS-25581 and We have completed batch job execution until 6 months as per performance testing approach document once back up is in place we can continue test until 2 years for slots availability batch.