Mindtree

Performance Test Report For Execution of 5 months Slot availability Batch Job

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Summary

This report presents the observations and findings of the 5 months slot availability batch job and load test conducted for a load of 150 users, which will make booking appointments after executing 5 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 5 months.

Below are the scenario details:

Sprint/Report Name	Booking appointments after executing slot availability batch job for 5 months (152 days)
Run Date	20-June-2019
Period	06:00 AM to 07:07 AM (UTC)
Number of concurrent users	150
Ramp up	4 min
Run Duration	60 minutes
Ramp down	2 min

Batch Job execution details:

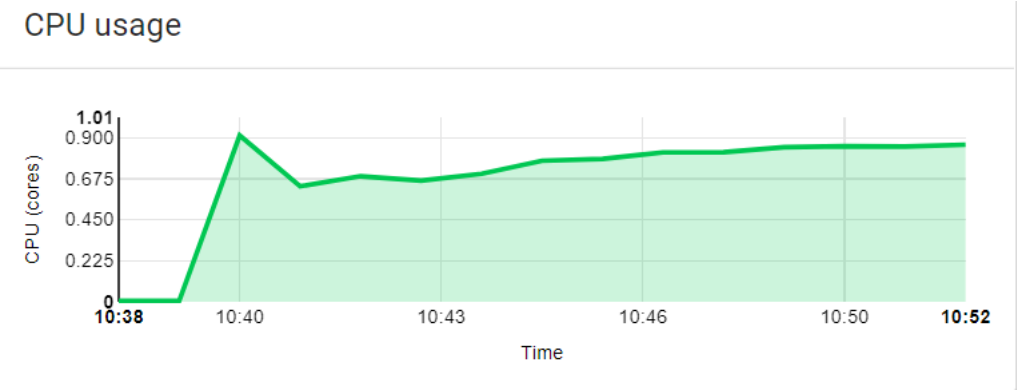
Executed slot availability batch job for 5 months and verified in the DB as well after creation of slots for 5 months, below are the details:

instance_id	Create_Time	Start_Time	End_Time	Execution Time	Status	Slots available (DB)	Days (DB)
1113	2019-06-20 05:09:09.184	2019-06-20 05:09:09.211	2019-06-20 05:52:01.636	**00:42:52**	Completed	60573	152

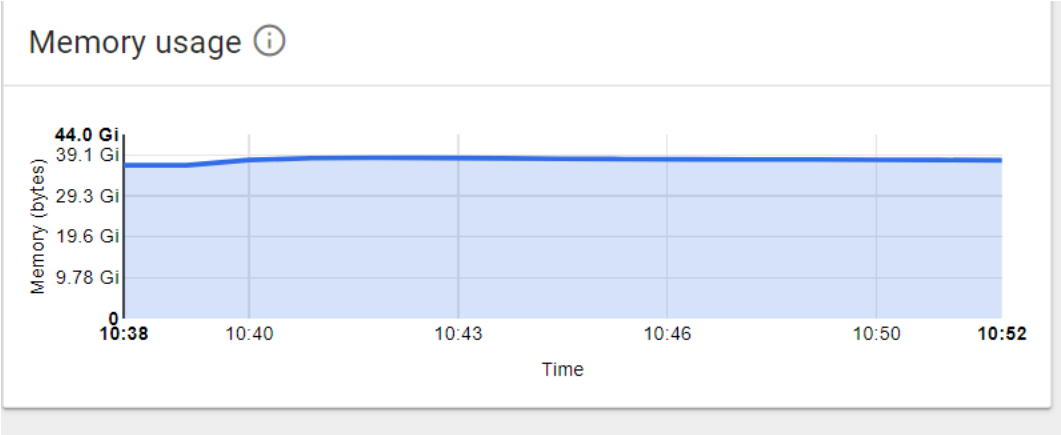
Slot availability batch job took **00:42:52** sec for executing 5 months. Batch job status is completed but its created 5 months slots. Verified the slots available in DB.

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

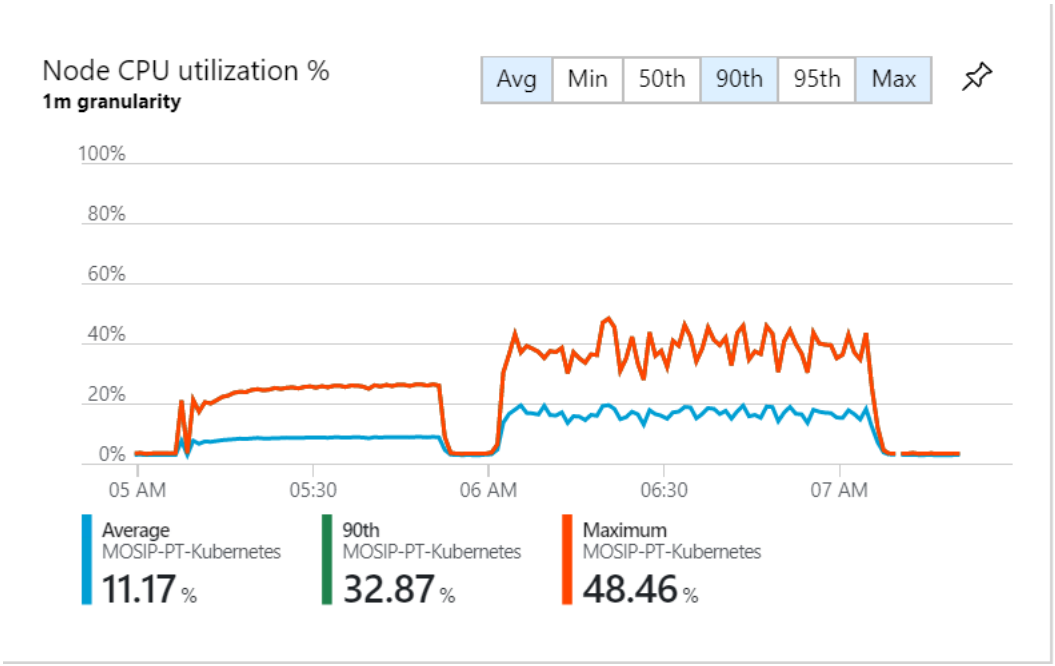
CPU Utilization:

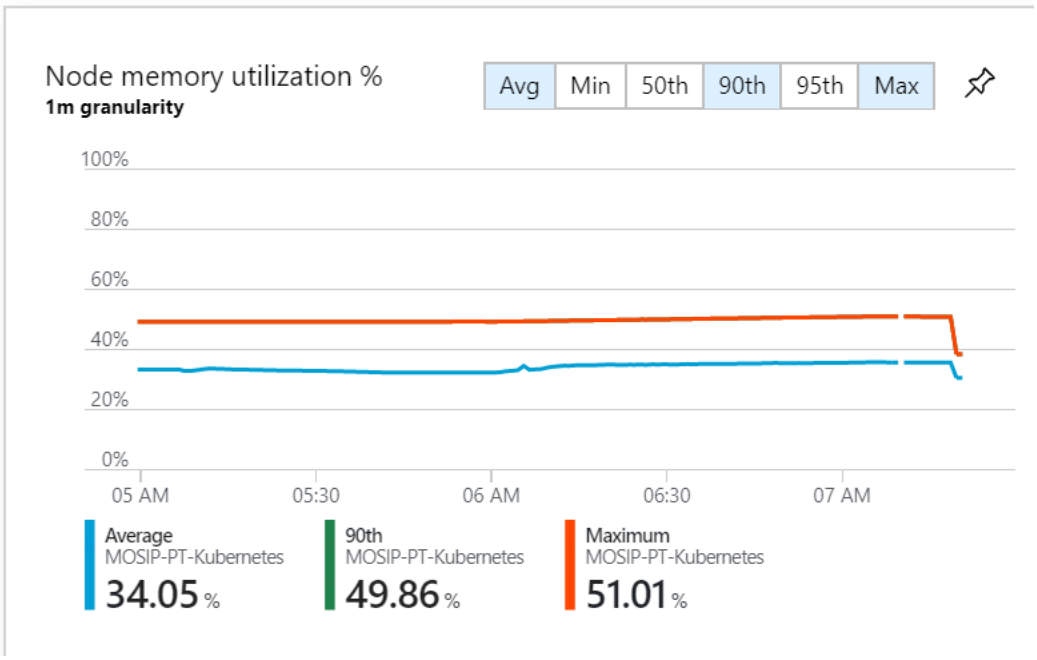


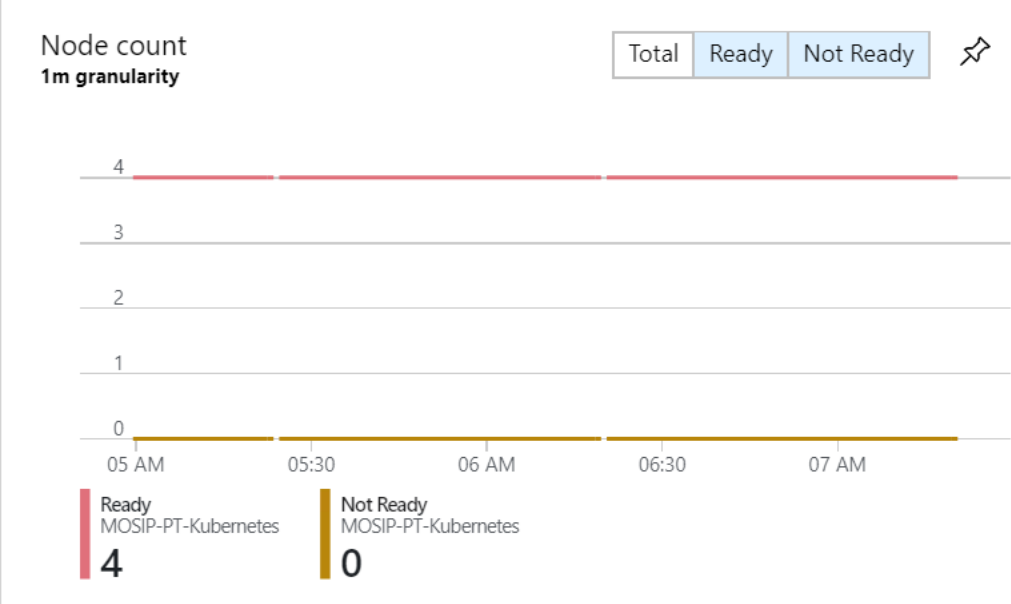
Memory utilization:



CPU and Memory utilization from Kubernates cluster:







After verifying the slots available in DB for 5 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	2900	60982	121784	175	240816	0.07%	0.73258
mosip_preReg_send_otp	2857	365	390	15	4285	0.21%	0.72267
mosip_preReg_validate_otp	2845	192	202	94	4636	0.07%	0.72412
mosip_preReg_submit_demographics	2841	993	1360	33	12813	0.07%	0.72298
mosip_preReg_upload_poi_document	2839	506	602	31	5228	0.81%	0.72256
mosip_preReg_upload_poa_document	2838	439	526	16	4496	0.14%	0.7224
mosip_open_preview_pageupload_poi_document	2831	14	18	8	227	0.00%	0.72073
mosip_preReg_open_regCeneter_selection_page	2831	143	155	41	646	0.14%	0.72068
mosip_preReg_search_registration_center	2829	66	73	18	1362	0.11%	0.72212
mosip_preReg_open_book_appointment_page	2827	1517	2129	28	4131	0.11%	0.7214
mosip_preReg_book_appointment	2824	408	514	301	6282	0.07%	0.7208
mosip_preReg_logout	2818	63716	124041	11	244195	0.25%	0.7205

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 - 60.982 sec
2. Mosip_preReg_logout- 63.716 sec

The error rate for all transactions is less than 1%.

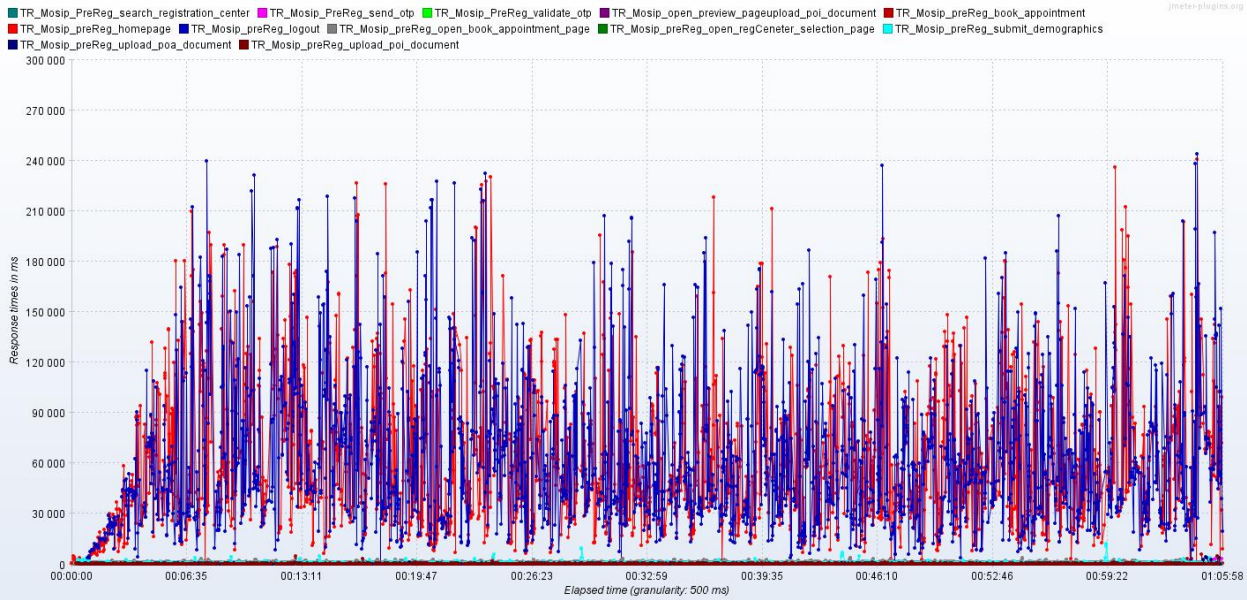
Test Environment

	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

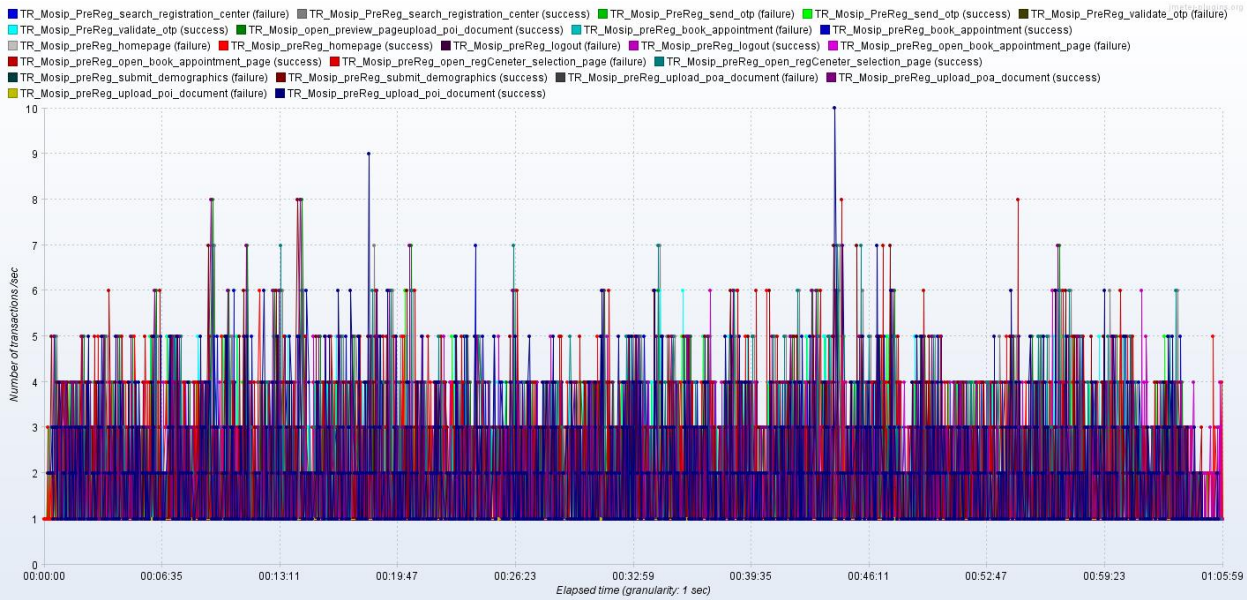
Response Time Graph

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

1. Mosip_preReg_homepage - 60.982 sec
2. Mosip_preReg_logout- 63.716 sec



Transactions per second:



Conclusion and Next Steps:

The Execution for 5 months slots availability is completed, the high response times 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 will proceed slot availability batch for future periods for 6 Months and we will repeat the same performance test and observe the performance of transactions and execution time for batch jobs.