

Performance Test Report

For

Execution of

PreRegistration module – 400 users (Run1)

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Summary

This report presents the observations and findings of the load test conducted for a load of 400 users performing booking appointments full flow planned for 12-hour duration

The objective of this load test¹ was to observe and record the behavior of the application when users are booking appointments for 400 concurrent users to create volume of preregistrations in DB.

Below are the scenario details:

Sprint/Report Name	Booking appointments
Run Date	12-Aug-2019 to 13-Aug-2019
Period	12 th Aug 16:39 to 13 th Aug 04:48(UTC)
Number of concurrent users	400
Ramp up	4 min
Run Duration	12 hour
Ramp down	4min

The transaction response times observed were as below:

Label	# Samples	Average (ms)	90% Line (ms)	Min (ms)	Max (ms)	Error %	Throughput (sec)
TR_prereg_homepage	64973	126	133	57	6600	0.00%	1.4877
TR_prereg_sendotp	64954	228	305	69	15081	0.23%	1.48757
TR_prereg_validateotp	64793	228	289	86	30191	0.08%	1.48389
TR_prereg_viewbasicdetails	64721	401	462	166	21905	0.00%	1.48261
TR_prereg_submitdemographic	64718	1938	3454	188	40770	0.00%	1.48248
TR_prereg_uploadpoidocument	64704	296	270	48	20101	0.08%	1.48246
TR_prereg_uploadpoadocument	64639	209	196	27	28974	0.20%	1.48098
TR_prereg_searchregcenter	64500	60	69	43	4287	0.00%	1.47814
TR_prereg_openbookappointmentpage	64486	86553	102902	3332	135742	6.43%	1.47773
TR_prereg_bookappointment	56348	82166	101863	463	130789	6.64%	1.29186
TR_prereg_notify	52507	75059	91903	90	122819	4.06%	1.20384
TR_prereglogout	54195	188	255	13	7524	0.00%	1.24249

Performance Test Execution Details

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

All the transactions average response times were less than 3sec except below:

1. prereg_openbookappointmentpage- **86.553** sec
2. prereg_bookappointment- **82.166** sec
3. prereg_notify- **75.059** sec

Below high response times are due to registration slots for the center not available and these high response times are ignored as these are due to data issue

1. prereg_openbookappointmentpage- **86.553** sec

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

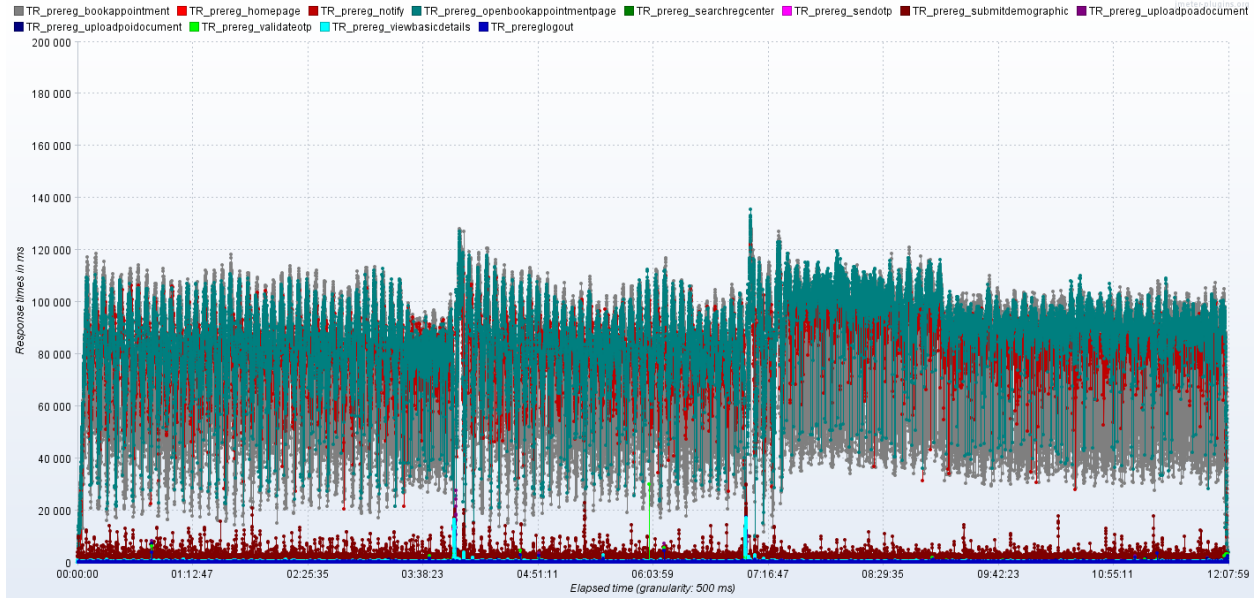
Active threads over Time:



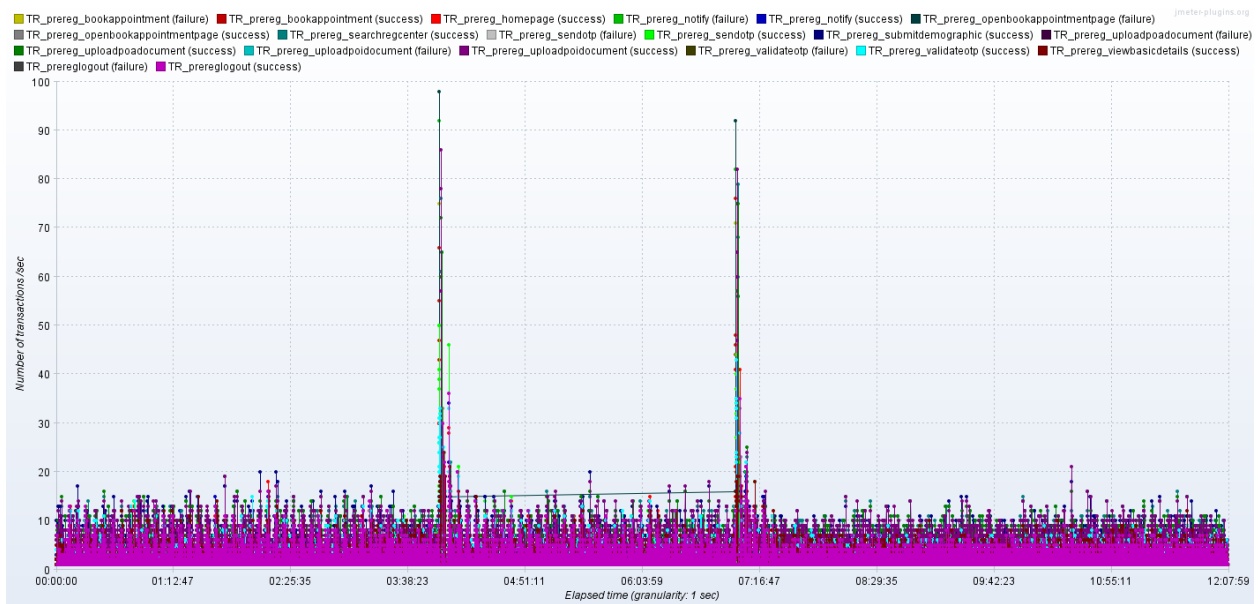
Response Time Graph

All the transactions average response times were less than 3sec except below:

1. prereg_openbookappointmentpage- 86.553 sec
2. prereg_bookappointment- 82.166 sec
3. prereg_notify- 75.059 sec



Transactions per second:



All key transactions error rate is less than 1% except below:

1. TR_prereg_bookappointment- 6.64%
2. TR_prereg_notify- 4.06%

Below are the few error details:

Book appointment request error details:

```
{"id":null,"version":null,"responsetime":"2019-08-12T22:08:56.681Z","metadata":null,"response":null,"errors":[{"errorCode":"PRG_CORE_REQ_016","message":"Could not open JPA EntityManager for transaction; nested exception is org.hibernate.exception.JDBCConnectionException: Unable to acquire JDBC Connection"}]}
```

Notification error details:

```
{"id":"mosip.pre-registration.notification.notify","version":"1.0","responsetime":null,"response":null,"errors":null}
```

Conclusion and Next Steps

This performance test is executed for 12 hours inorder to create volume of appointments currently created around 52606 appointments in DB and next we proceed further test to create data upto 2 lac