Environment: Analysis was performed on TEST environment.

General info:

	Host	Type	IP	Hosted Applications	Ports
STAGING	EPUAKYIW1686T1	VM	10.17.172.226	EPUAKYIW1686T1.kyiv.epam.com	8080, 4444

System resources (TEST env):

CPU, GHz	Memory, Gb	Disk size, Gb
2	8	100

Test scenario

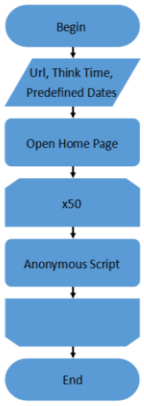
There is a combined scenario which is to include the scripts:

• Task 4 (admin)

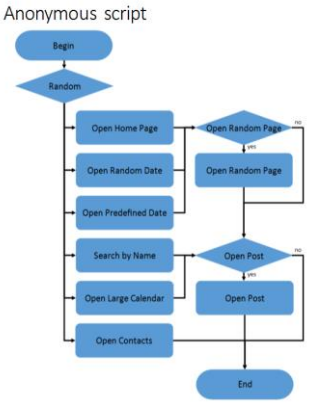
• Task 5 (editor)

• Task 6 (anonymous)

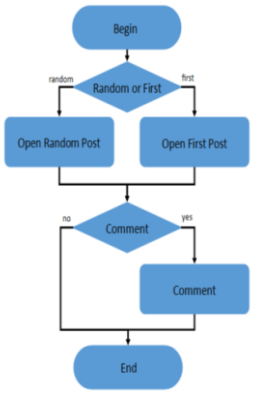
Main script



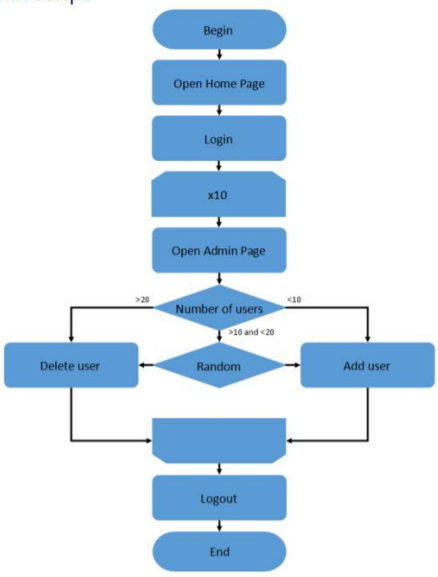
Anonymous script



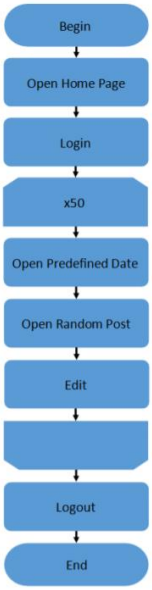
Open Post script



Admin script



Editor script



Test conditions

Transaction	**Condition for anonymous script**
open home page	15%
open random date	10%
open predefined date	30%
search by name	30%
open large calendar	10%
open contacts	5%
open random page	50%
open post	80%
open random post	65%
open first post	35%
add comment	20%

Test Setup

	Condition
number of virtual users	Up to 150 – Anonymous 2 – Admins 2 – Editors
ramp-up period(sec)	750 – Anonymous 30 – Admin 30 – Editor
duration(sec)	900
think time (sec)	3-5

Test Summary

1 The maximum capacity of the application usage is found. For both scenarios it is restricted by the 100% CPU usage and a significant increase in the use of network resources. Adding more load leads to the application becomes unresponsive.

2 Saturation point is 75 users(2 – admins, 2 – editors, 71– anonymous) (1000 posts) for the combined scenario.

Recommendation

1 Possibility to increasing CPU power.

2 Increase Network I/O.

3 After reaching the point of saturation, the application doesn't respond and no recovery is provided for. Perhaps we should add a recovery step or at least a stub which produced 500 errors.

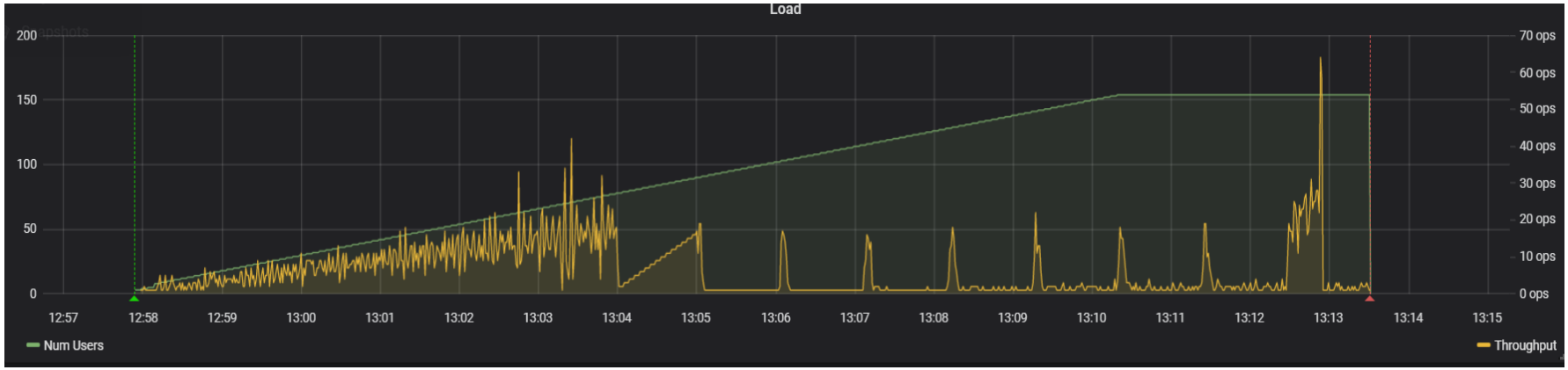
Results: graphs and tables(for more details open dashboard HTMLReport > index)

1 Statistics

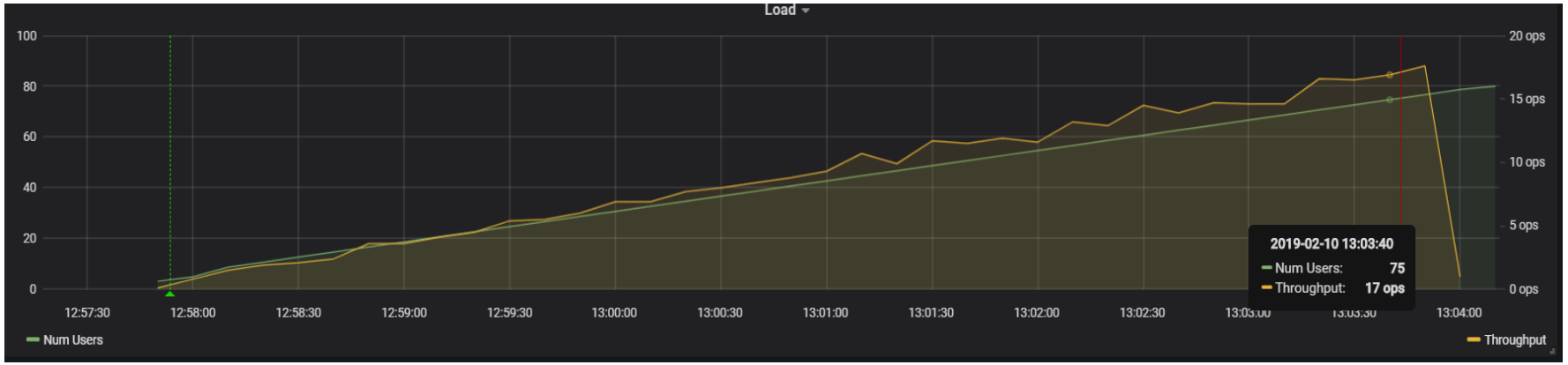
Metrics Overview

Time	requestName	Count	Avg	Min	Max	Median	75%	90%	95%	99%	Error Rate
2019-02-10 12:56:44	Add User transaction	10.00	134.50 ms	10.00 ms	1.13 s	13.00 ms	56.00 ms	63.00 ms	1.13 s	1.13 s	10.00%
2019-02-10 12:56:44	Change Post transaction	15.00	8.92 s	463.00 ms	1.00 min	963.00 ms	1.79 s	1.00 min	1.00 min	1.00 min	13.33%
2019-02-10 12:56:44	Comment transaction	258.00	8.94 s	29.00 ms	1.00 min	60.00 ms	256.00 ms	1.00 min	1.00 min	1.00 min	27.13%
2019-02-10 12:56:44	Delete User transaction	1.00	82.00 ms	82.00 ms	82.00 ms	82.00 ms	82.00 ms	82.00 ms	82.00 ms	82.00 ms	0%
2019-02-10 12:56:44	Go To Main Blog page transaction	154.00	30.45 s	37.00 ms	1.00 min	1.00 min	1.00 min	1.00 min	1.00 min	1.00 min	51.30%
2019-02-10 12:56:44	Go to log in page transaction	154.00	30.08 s	7.00 ms	1.00 min	32.20 s	1.00 min	1.00 min	1.00 min	1.00 min	50.00%
2019-02-10 12:56:44	Log in transaction	154.00	30.43 s	41.00 ms	1.00 min	1.00 min	1.00 min	1.00 min	1.00 min	1.00 min	50.65%
2019-02-10 12:56:44	Open Admin Page transaction	13.00	5.03 s	7.00 ms	1.00 min	12.00 ms	14.00 ms	5.26 s	5.26 s	1.00 min	15.38%
2019-02-10 12:56:44	Open First Post transaction	494.00	9.60 s	10.00 ms	1.07 min	66.00 ms	257.00 ms	1.00 min	1.00 min	1.00 min	29.35%
2019-02-10 12:56:44	Open Home Page transaction	1.81 K	11.37 s	10.00 ms	1.07 min	69.00 ms	334.00 ms	1.00 min	1.00 min	1.00 min	31.05%
2019-02-10 12:56:44	Open Predefined Date transaction	17.00	7.12 s	29.00 ms	1.00 min	48.00 ms	85.00 ms	232.00 ms	1.00 min	1.00 min	23.53%
2019-02-10 12:56:44	Open Random Page transaction	852.00	10.12 s	17.00 ms	1.07 min	67.00 ms	294.00 ms	1.00 min	1.00 min	1.00 min	30.05%
2019-02-10 12:56:44	Open Random Post transaction	914.00	11.49 s	12.00 ms	1.08 min	107.50 ms	392.00 ms	1.00 min	1.00 min	1.00 min	30.96%
2019-02-10 12:56:44	Open Users Page transaction	13.00	79.69 ms	11.00 ms	351.00 ms	31.00 ms	153.00 ms	165.00 ms	165.00 ms	351.00 ms	23.08%

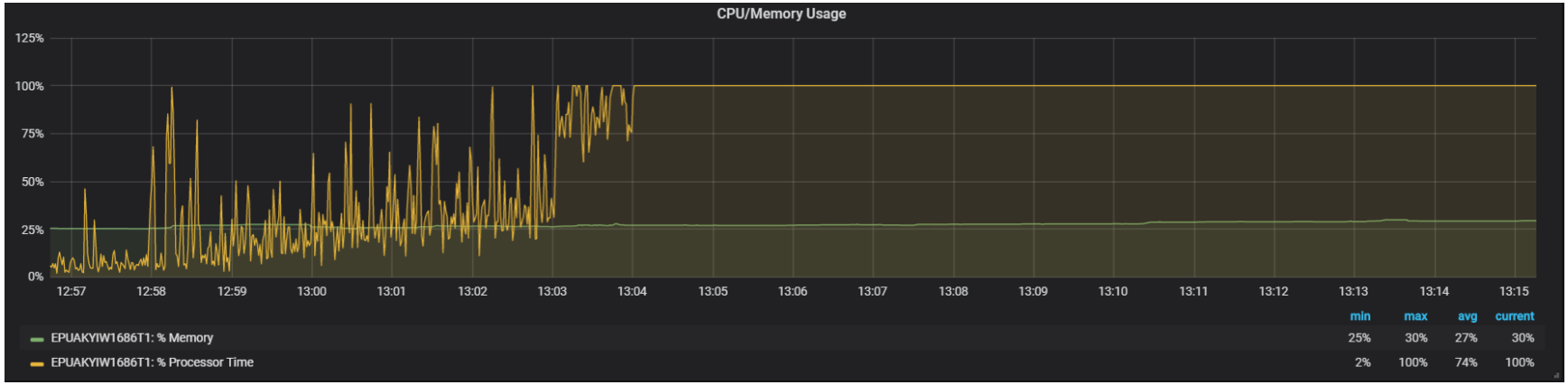
2 Number of active threads vs throughput graph



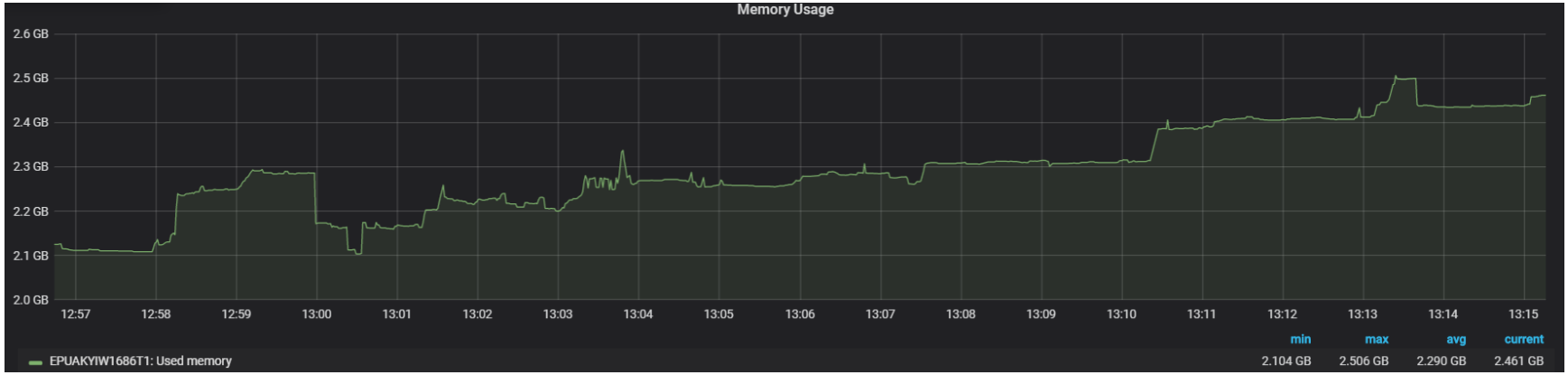
Saturation point



3 (CPU,Memory,Network) graphs




Process
% Processor Time
400%
300%
200%
100%
0%
12:58
13:00
13:02
13:04
13:06
13:08
13:10
13:12
13:14
EPUAKYIW1686T1: unsecapp
0%
2%
0%
0%
EPUAKYIW1686T1: w3wp
0%
322%
121%
217%


Memory Usage
2.6 GB
2.5 GB
2.4 GB
2.3 GB
2.2 GB
2.1 GB
2.0 GB
12:57
12:58
12:59
13:00
13:01
13:02
13:03
13:04
13:05
13:06
13:07
13:08
13:09
13:10
13:11
13:12
13:13
13:14
13:15
min
max
avg
current
EPUAKYIW1686T1: Used memory
2.104 GB
2.506 GB
2.290 GB
2.461 GB

Network Interface Intel[R] PRO_1000 MT Desktop Adapter