

**Environment:** Analysis was performed on TEST environment.

General info:

	Host	Type	IP	Hosted Applications	Ports
STAGING	EPUAKYIW1686T1	VM	10.17.175.63	EPUAKYIW1686T1.kyiv.epam.com	8080, 4444

System resources (TEST env):

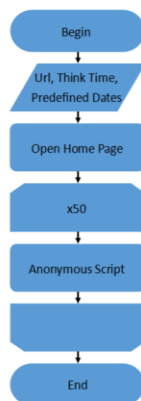
CPU, GHz	Memory, Gb	Disk size, Gb
2	8.192	100

**Test scenario**

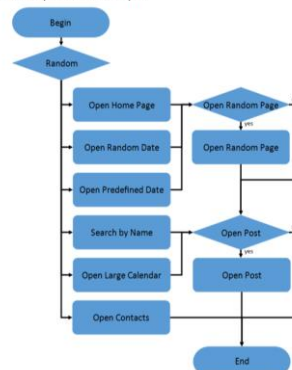
There is a combined scenario which is to include the scripts:

- Task 4 (admin)
- Task 5 (editor)
- Task 6 (anonymous)

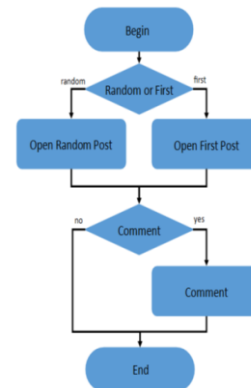
Main script



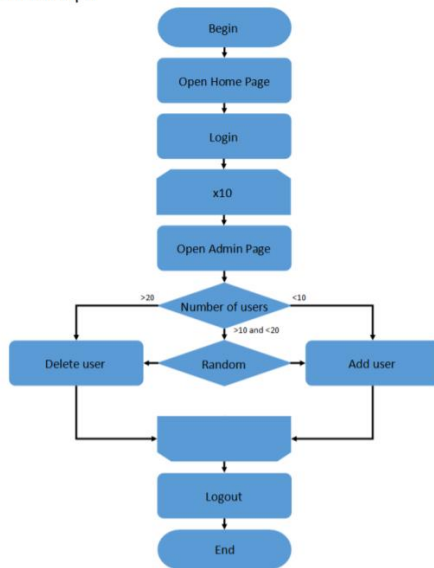
Anonymous script



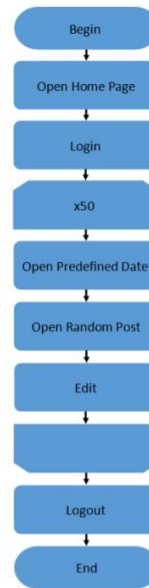
Open Post script



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 40 – Anonymous 2 – Admins 2 – Editors
ramp-up period(sec)	400 – Anonymous 30 – Admin 30 – Editor
duration(sec)	600
think time (sec)	3-5

## Data Setup

Configuration	Posts amount	Posts data
<b>1</b>	100	Text only
<b>2</b>	1000	
<b>3</b>	2000	
<b>4</b>	5000	

## Test Results

Configuration	Avg throughput, ops	Avg response time, ms	Avg CPU %	Avg Processor time % for ISS
<b>1</b>	6.99	49	29	16
<b>2</b>	6.96	71	43	27
<b>3</b>	6.85	107	35	39
<b>4</b>	6.68	462	51	79

## Test Summary

1 From gathered results, we can see that slight degradation starts from 2000 posts and huge degradation from 5000.

Firstly, throughput 6.99ops(100 posts), 6.96ops(1000 posts) against 6.85ops(2000 posts) and 6.68ops(5000posts).

Secondly, avg response time 49ms(100 posts), 71ms(1000 posts) against 107ms(2000 posts) and 462ms(5000posts).

2 Degradation could be found on each request see Metrics Overview. Main requests with huge degradations Change Post transaction, Comment transaction, Open First Post transaction, Open Random Post transaction.

3 There is degradation on server mostly in Processor time % for ISS and Queue Size for HTTP Service Request Queues, request queue present only for 4 Data configuration.

Processor time % (avg)

16% - (1 Data configuration)

27 % - (2 Data configuration)

39 % - (4 Data configuration)

79 % - (5 Data configuration)

### **Recommendation**

1 Additional testing on 8000 and 10 000 to get info on how a system works on this configuration.

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

## 1 Metrics Overview

### 1 Data configuration

main screen									
Request Name ▾	Count	Avg	Min	Max	Median	75%	90%	95%	99%
Open Users Page transaction	21	44.38 ms	10.00 ms	510.00 ms	21.00 ms	27.00 ms	37.00 ms	61.00 ms	510.00 ms
Open Random Post transaction	834	57.67 ms	23.00 ms	5.05 s	37.00 ms	46.00 ms	55.00 ms	65.00 ms	196.00 ms
Open Random Page transaction	778	50.22 ms	26.00 ms	3.16 s	38.00 ms	48.00 ms	55.00 ms	64.00 ms	247.00 ms
Open Predefined Date transaction	24	53.42 ms	25.00 ms	440.00 ms	32.00 ms	48.00 ms	56.00 ms	70.00 ms	440.00 ms
Open Home Page transaction	1587	42.24 ms	25.00 ms	469.00 ms	38.00 ms	48.00 ms	56.00 ms	63.00 ms	99.00 ms
Open First Post transaction	441	43.74 ms	23.00 ms	1.87 s	37.00 ms	47.00 ms	54.00 ms	61.00 ms	134.00 ms
Open Admin Page transaction	21	178.57 ms	8.00 ms	3.46 s	10.00 ms	18.00 ms	27.00 ms	41.00 ms	3.46 s
Log out transaction	1	47.00 ms	47.00 ms	47.00 ms	47.00 ms	47.00 ms	47.00 ms	47.00 ms	47.00 ms
Log in transaction	45	53.40 ms	33.00 ms	169.00 ms	46.00 ms	62.00 ms	70.00 ms	86.00 ms	169.00 ms
Go to log in page transaction	45	17.09 ms	7.00 ms	121.00 ms	10.00 ms	15.00 ms	32.00 ms	58.00 ms	121.00 ms
Go To Main Blog page transaction	45	45.49 ms	27.00 ms	106.00 ms	41.00 ms	53.00 ms	64.00 ms	89.00 ms	106.00 ms
Delete User transaction	9	32.33 ms	11.00 ms	118.00 ms	27.00 ms	28.00 ms	41.00 ms	118.00 ms	118.00 ms
Comment transaction	249	39.07 ms	24.00 ms	304.00 ms	35.00 ms	45.00 ms	53.00 ms	59.00 ms	101.00 ms
Change Post transaction	22	90.36 ms	52.00 ms	552.00 ms	69.50 ms	77.00 ms	78.00 ms	95.00 ms	552.00 ms
Add User transaction	10	28.00 ms	12.00 ms	60.00 ms	23.50 ms	37.00 ms	43.00 ms	60.00 ms	60.00 ms

## 2 Data configuration

Request Name ▾	Count	Avg	Min	Max	Median	75%	90%	95%	99%
Open Users Page transaction	21	197.14 ms	10.00 ms	3.59 s	22.00 ms	29.00 ms	43.00 ms	172.00 ms	3.59 s
Open Random Post transaction	824	74.15 ms	28.00 ms	1.65 s	46.00 ms	61.00 ms	156.00 ms	189.00 ms	627.00 ms
Open Random Page transaction	772	71.29 ms	34.00 ms	3.84 s	47.00 ms	60.00 ms	70.00 ms	85.00 ms	434.00 ms
Open Predefined Date transaction	23	73.96 ms	32.00 ms	790.00 ms	37.00 ms	44.00 ms	56.00 ms	96.00 ms	790.00 ms
Open Home Page transaction	1577	78.07 ms	34.00 ms	4.41 s	47.00 ms	60.00 ms	74.00 ms	103.00 ms	617.00 ms
Open First Post transaction	441	71.10 ms	27.00 ms	1.58 s	45.00 ms	57.00 ms	87.00 ms	171.00 ms	599.00 ms
Open Admin Page transaction	21	145.57 ms	8.00 ms	2.79 s	9.00 ms	15.00 ms	34.00 ms	47.00 ms	2.79 s
Log out transaction	1	49.00 ms	49.00 ms	49.00 ms	49.00 ms	49.00 ms	49.00 ms	49.00 ms	49.00 ms
Log in transaction	45	58.71 ms	41.00 ms	99.00 ms	55.00 ms	66.00 ms	80.00 ms	84.00 ms	99.00 ms
Go to log in page transaction	45	17.76 ms	7.00 ms	186.00 ms	8.00 ms	13.00 ms	20.00 ms	31.00 ms	186.00 ms
Go To Main Blog page transaction	45	82.44 ms	37.00 ms	140.00 ms	44.00 ms	53.00 ms	77.00 ms	101.00 ms	140.00 ms
Delete User transaction	8	27.13 ms	13.00 ms	74.00 ms	18.50 ms	32.00 ms	35.00 ms	74.00 ms	74.00 ms
Comment transaction	247	60.21 ms	30.00 ms	744.00 ms	45.00 ms	56.00 ms	70.00 ms	100.00 ms	418.00 ms
Change Post transaction	21	517.95 ms	447.00 ms	730.00 ms	485.00 ms	544.00 ms	619.00 ms	650.00 ms	730.00 ms
Add User transaction	11	22.00 ms	11.00 ms	54.00 ms	18.00 ms	20.00 ms	34.00 ms	34.00 ms	54.00 ms

## 3 Data configuration

Request Name ▾	Count	Avg	Min	Max	Median	75%	90%	95%	99%
Open Users Page transaction	19	45.68 ms	10.00 ms	330.00 ms	15.00 ms	24.00 ms	41.00 ms	244.00 ms	330.00 ms
Open Random Post transaction	816	110.26 ms	32.00 ms	3.19 s	58.00 ms	76.00 ms	282.00 ms	322.00 ms	930.00 ms
Open Random Page transaction	765	115.73 ms	40.00 ms	4.38 s	63.00 ms	77.00 ms	103.00 ms	432.00 ms	933.00 ms
Open Predefined Date transaction	23	114.13 ms	38.00 ms	1.31 s	60.00 ms	65.00 ms	83.00 ms	115.00 ms	1.31 s
Open Home Page transaction	1564	99.49 ms	40.00 ms	4.23 s	63.00 ms	75.00 ms	92.00 ms	220.00 ms	983.00 ms
Open First Post transaction	433	107.88 ms	33.00 ms	2.14 s	57.00 ms	72.00 ms	266.00 ms	341.00 ms	978.00 ms
Open Admin Page transaction	19	145.95 ms	8.00 ms	2.55 s	9.00 ms	17.00 ms	23.00 ms	25.00 ms	2.55 s
Log in transaction	44	135.34 ms	55.00 ms	1.63 s	80.50 ms	97.00 ms	125.00 ms	474.00 ms	1.63 s
Go to log in page transaction	44	17.84 ms	7.00 ms	136.00 ms	13.00 ms	15.00 ms	23.00 ms	55.00 ms	136.00 ms
Go To Main Blog page transaction	44	78.93 ms	48.00 ms	426.00 ms	61.00 ms	75.00 ms	89.00 ms	125.00 ms	426.00 ms
Delete User transaction	7	31.14 ms	12.00 ms	80.00 ms	24.00 ms	26.00 ms	40.00 ms	80.00 ms	80.00 ms
Comment transaction	243	82.55 ms	36.00 ms	1.45 s	55.00 ms	69.00 ms	90.00 ms	115.00 ms	910.00 ms
Change Post transaction	21	1.02 s	844.00 ms	1.39 s	931.00 ms	1.18 s	1.26 s	1.33 s	1.39 s
Add User transaction	10	20.30 ms	11.00 ms	78.00 ms	13.00 ms	19.00 ms	21.00 ms	78.00 ms	78.00 ms

## 4 Data configuration

Request Name ▾	Count	Avg	Min	Max	Median	75%	90%	95%	99%
Open Users Page transaction	16	53.56 ms	11.00 ms	392.00 ms	14.00 ms	31.00 ms	52.00 ms	181.00 ms	392.00 ms
Open Random Post transaction	759	503.45 ms	46.00 ms	5.40 s	105.00 ms	601.00 ms	1.64 s	2.40 s	4.00 s
Open Random Page transaction	709	450.46 ms	60.00 ms	4.50 s	111.00 ms	195.00 ms	1.58 s	2.17 s	3.54 s
Open Predefined Date transaction	22	175.18 ms	44.00 ms	1.19 s	77.50 ms	101.00 ms	220.00 ms	952.00 ms	1.19 s
Open Home Page transaction	1451	383.90 ms	61.00 ms	5.53 s	112.00 ms	164.00 ms	1.37 s	2.03 s	3.43 s
Open First Post transaction	404	433.74 ms	47.00 ms	3.79 s	101.00 ms	231.00 ms	1.49 s	2.27 s	3.62 s
Open Admin Page transaction	16	177.63 ms	8.00 ms	2.62 s	9.00 ms	15.00 ms	33.00 ms	39.00 ms	2.62 s
Log in transaction	44	306.39 ms	76.00 ms	3.71 s	119.00 ms	144.00 ms	405.00 ms	1.43 s	3.71 s
Go to log in page transaction	44	186.30 ms	7.00 ms	2.38 s	14.50 ms	33.00 ms	590.00 ms	1.12 s	2.38 s
Go To Main Blog page transaction	44	408.59 ms	67.00 ms	3.00 s	119.00 ms	166.00 ms	1.71 s	2.56 s	3.00 s
Delete User transaction	8	33.50 ms	11.00 ms	81.00 ms	23.50 ms	47.00 ms	52.00 ms	81.00 ms	81.00 ms
Comment transaction	226	460.39 ms	48.00 ms	4.03 s	101.50 ms	198.00 ms	1.57 s	2.28 s	3.73 s
Change Post transaction	20	3.83 s	2.31 s	5.64 s	3.84 s	4.83 s	5.29 s	5.51 s	5.64 s
Add User transaction	7	548.43 ms	13.00 ms	3.54 s	44.00 ms	63.00 ms	128.00 ms	3.54 s	3.54 s

2 Processor time %

1 Data configuration

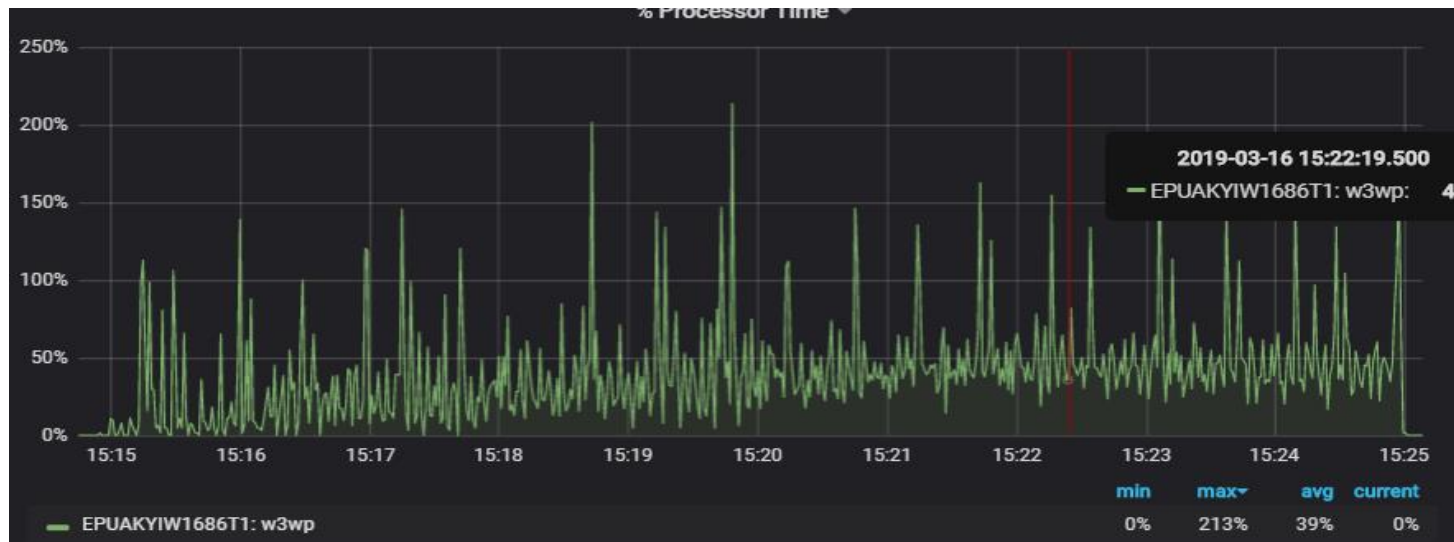




## 2 Data configuration



### 3 Data configuration



### 4 Data configuration



### 3 HTTP Service Request Queues

### 4 Data configuration

