

## Smoke test

### Test purpose

The purpose of the test was to check that the functionalities of the BlogEngine application are working correct and environment is working stably during using the application by clients with Anonymous role and also Admin and Editor roles. The number of generated blog posts is 1000.

## Application Overview

BlogEngine.NET is an open source ASP.NET project that was born out of desire for a better blogging platform. Developers focused on simplicity, ease of use, extensibility and innovative design while taking advantage of the latest .NET features.

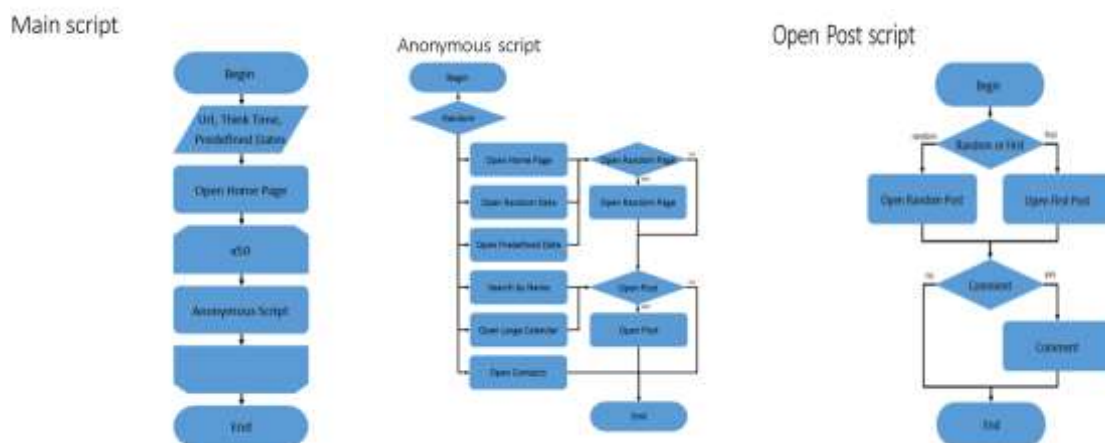
## Testing Scope

Performance Testing for the following modules are in Scope of Testing

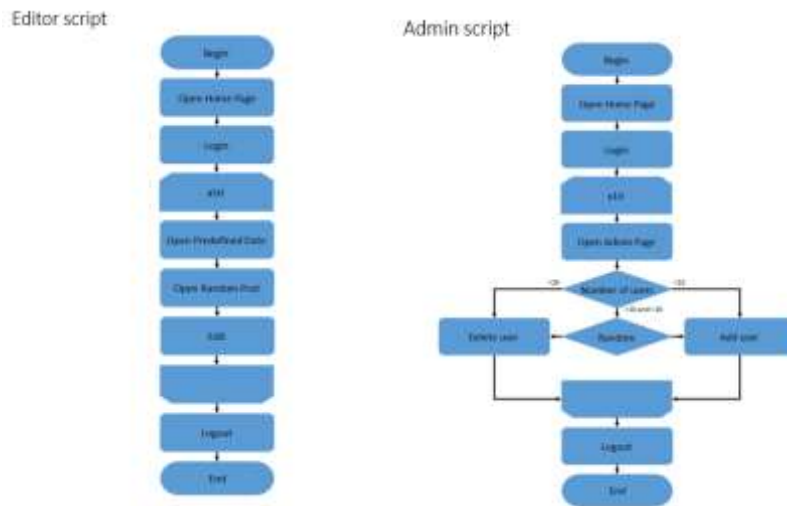
1. Home page
2. Calendar
3. Post page
4. Create comment
5. Contact page
6. Search by Name
7. Edit post
8. Admin page
9. Add user
10. Delete user
11. Login
12. Logout

## Test scenario

There are considered Main script for Anonymous user scenario where



Also there are scenarios for Admin and Editor users where



## Test Environment & Tools

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

General info:

	Host	Type	IP	Hosted Applications	Ports
STAGING	EPUAKIYW1844T2	VM	10.17.175.4	EPUAKIYW1844T2.kyiv.epam.com	80

System resources (TEST env):

	Operational System	CPU, GHz	Memory, Gb	Disk size, Gb
DGL	Win Server 2010 R2 SP1 64bit	2	4	50

## Tools:

Creating and executing tests	Apache JMeter v5.0
Storing test results and application indicators	InfluxDB 1.7.3
Collecting application metrics	Telegraf 1.10
Visualizing metrics, creating dashboards	Grafana 5.4.3

## Test conditions

Condition	Transaction	Probabilities usage
1	open home page	15%
	open random date	10%
	open prediction date	30%
	search by name	30%
	open large calendar	10%
	open contacts	5%
2	open random page	50%
3	open post	80%
4	open random post	65%
	open first post	35%
5	add comment	20%

## Test Setup

number of virtual users	10 Anonymous, 2 Admins, 2 Editors
ramp-up period	100; 20;20
think time between transactions(sec)	3-5
count of posts	1000

Note: here random date is from 2019-02-01 to 2019-02-11.

## Test Results

### Test Summary

During test the indicators of server were stable. Found server issue related Edit post transaction.

### Issues found

There were 3 Internal Server Errors for Edit post transaction.

### Results: graphs and tables

#### 1. Aggregate Reports

Aggregate Report										
Transaction	Count	Avg	Min	Max	Median	Pct 75	Pct 90	Pct 95	K0	Error %
Add user	9	52.46 ms	30.00 ms	388.00 ms	388.00 ms	388.00 ms	388.00 ms	388.00 ms	0	0%
Admin Page	20	146.86 ms	47.00 ms	1.13 s	1.13 s	1.13 s	1.13 s	1.13 s	0	0%
Delete user	11	41.12 ms	20.00 ms	273.00 ms	273.00 ms	273.00 ms	273.00 ms	273.00 ms	0	0%
Edit post	100	577.39 ms	167.00 ms	3.58 s	794.00 ms	156.00 ms	3.58 s	3.58 s	3	1.49%
Home page	84	84.86 ms	42.00 ms	273.00 ms	273.00 ms	273.00 ms	273.00 ms	273.00 ms	0	0%
Login	4	150.06 ms	131.00 ms	173.00 ms	173.00 ms	173.00 ms	173.00 ms	173.00 ms	0	0%
Logout	4	33.82 ms	30.00 ms	36.00 ms	36.00 ms	36.00 ms	36.00 ms	36.00 ms	0	0%
Open Contacts	30	64.16 ms	34.00 ms	294.00 ms	283.00 ms	282.00 ms	282.00 ms	282.00 ms	0	0%
Open Large Calendar	90	150.51 ms	70.00 ms	587.00 ms	376.00 ms	567.00 ms	567.00 ms	567.00 ms	0	0%
Open Predefined Date	250	113.16 ms	33.00 ms	1.33 s	326.58 ms	337.79 ms	1.05 s	1.05 s	0	0%
Open Random Date	50	86.34 ms	40.00 ms	301.00 ms	388.00 ms	301.00 ms	301.00 ms	301.00 ms	0	0%
Open Random Filter Post	100	113.35 ms	44.00 ms	656.00 ms	447.00 ms	447.00 ms	656.00 ms	656.00 ms	0	0%
Search By Name	150	89.52 ms	31.00 ms	321.00 ms	318.00 ms	320.36 ms	320.86 ms	320.86 ms	0	0%

#### 2. Total Response Time vs Threads

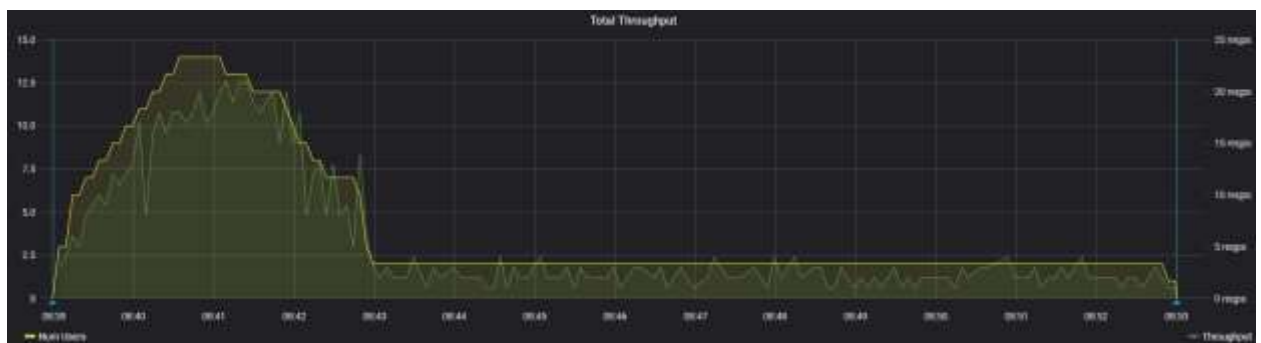


### 3. Transaction Response Times



During each type of users was in system the average of response time was less than 0.5 sec. The average of response time was 500 ms when in system only Editor users acted. Last 3 min “Edit post” transaction response time was 3.58 s.

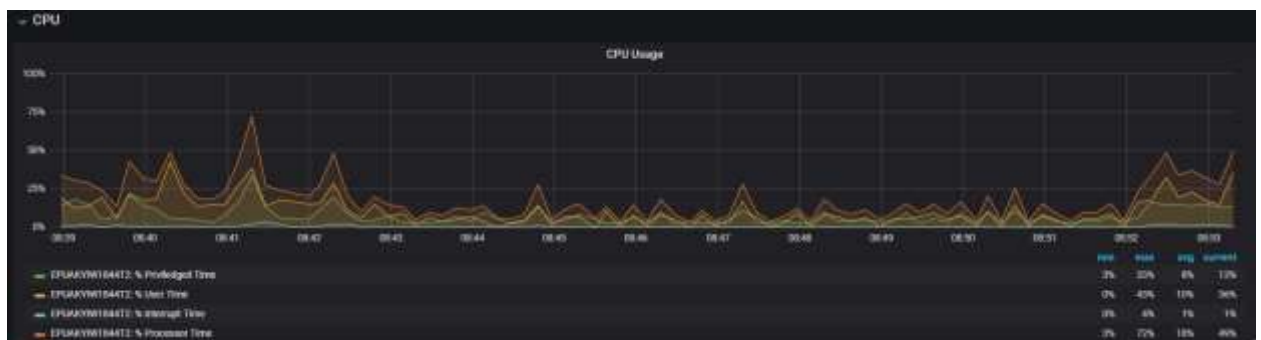
### 4. Total Throughput vs Threads



### 5. Transaction Throughput



### 6. CPU



Indicators of CPU were stable during the test.

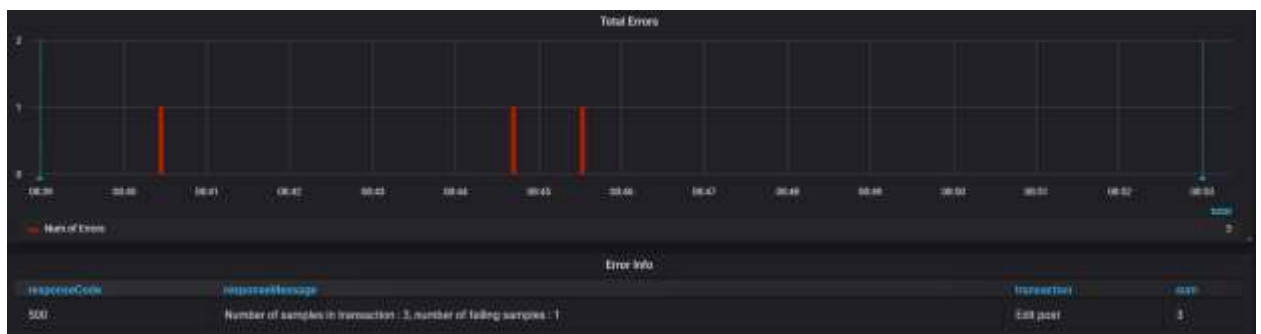
## 7. Memory



## 8. Disk C



## 9. Errors



There were 3 Internal Server Errors during the test. Need to investigate issue.