Performance Testing Mentoring Program 2022-2023

Task 5

Created by: Serhii Diedov

Date: 2/27/2023

1 Goal

Implement Editor user scenario, perform a Smoke test, and perform a load test with 2 editor users.

Prerequisites: generated 100 posts, created 2 Editors

Testing scenario: Open home page, log in as an Editor user, open a predefined date, open a random post and edit it, rapid it 50 times, and finally Log out.

Test environment: test application and load generator are running on the same computer. Application

is executed on virtual machine and the load generator is executed on the hast.

2 Summary

A smoke test was performed prior to the load test. The behavior of the system during the load test did not cause any remarks and corresponds to the SLA for this loading scenario.

The number of errors is 0.

3 What was tested

BlogEngine.NET 3.2 (web) (Executed on the application server)

Parameters of the system under test:

VirtualBox Graphical User Interface Version 7.0.4 r154605 (Qt5.15.2), Windows Server 2016 Standard (64-bit)

OS Name: Microsoft Windows 10 Enterprise, (64-bit) Version 10.0.19044 Build 19044

Base memory: 2,0Gb

Processor: Intel(R) Core(TM) i7-10610U CPU @ 1.80GHz, 2304 Mhz, 1 Core(s), 1 Logical Processor(s)

Storage: Virtual size 60.00 GB

Network: Bridged adapter, Intel® Wi-Fi 6 AX201 160Mhz

Load generator tool: Apache JMeter 5.5 (Executed on Host)

OS Name: Microsoft Windows 10 Enterprise (64-bit) Version 10.0.19045 Build 19045

Base memory: 32,0 GB

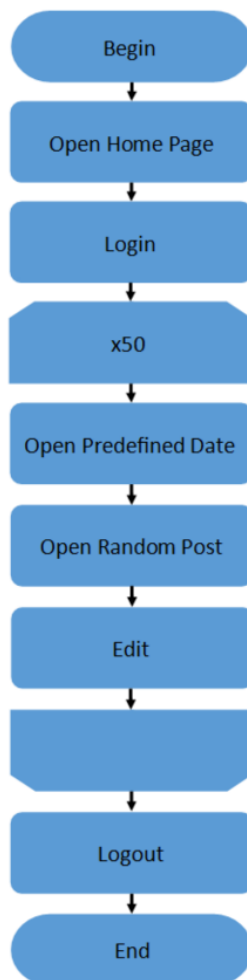Processor: Intel(R) Core(TM) i7-10610U CPU @ 1.80GHz, 2304 Mhz, 4 Core(s), 8 Logical Processor(s)

Storage: C: 248 Gb, D: Locked

Running Tests: Jenkins

Collection and visualization of metrics: InfluxDB, Telegraf, Grafana

5. Editor script

First, Open home page, log in as an Editor user, open a predefined date, open a random post and edit it, rapid it 50 times, and finally Log out.

2 Editor users, think time - Gaussian distributed value (with CONSTANT_DELAY=500ms and DEVIATION_DELAY=250ms), duration 7200 s.

Aggregate report:

transaction	NumberOfSamples	Average ⌄	pct90	pct95	pct99	Min	Max
TC_Open login page	80.00	207.72	1.51 K	1.53 K	1.53 K	60.00	1.53 K
TC_Login	80.00	55.22	691.40	756.00	756.00	7.00	756.00
TC_Editpost	3.94 K	52.37	516.70	850.10	7.12 K	11.00	7.19 K
TC_Open Home page	80.00	43.78	374.50	375.00	375.00	4.00	375.00
TC_Open editpost page	3.94 K	31.48	36.70	680.05	5.52 K	2.00	5.52 K
TC_LogOff	78.00	15.41	70.00	70.00	70.00	7.00	70.00
TC_Open Random post	3.94 K	14.04	13.80	204.70	1.94 K	4.00	1.95 K
TC_Open Predefined Date	3.94 K	13.23	13.90	173.75	877.58	0.00	883.00

Response time vs Active threads vs Throughput vs Error rate graph: