06-19-2022 Task 10

Test Purpose

* Perform long-time testing for 2200 text posts.

Test Summary

* We can observe that the application works stable for 2 hours. CPU had a few short-term leaps. Response time less than 1.5s for 95% requests. Failed transactions are less than 1%. The hardest request for our application is "Edit Post", it had 1% failed transactions. Also I ran 3 times this test, and two of them were failed without visible reasons for me, because application just stopped answered and CPU load was 100%, looks like problem with IIS.

Test Setup

|  |  |
| --- | --- |
| Test type | Endurance testing |
| Software/hardware configuration | Windows 10 64bit  Memory 32 GB  Processor I7 3.0 GHz  Disk 96.3 GB |
| Load generator configuration | Windows 10 64bit  Memory 7004 MB  Cores: 2 |
| Load testing tool | Apache JMeter 5.4.3 |
| App | BlogEngine.NET 3.2.0.3 |
| Number of users | 7 |
| Ramp-up period | 1200s |
| Test duration | 7200s |
| Test scenario | Main script, Anonymous script, Open post script algorithms |

Endurance testing : 2200 text posts

|  |  |
| --- | --- |
|  | **2200 text posts** |
| avg Throughput | 2 (Max: 3.6) |
| avg Response time | 287 ms |
| Transaction count | 14376 |
| Failed transaction | 37 (<1%) |
| avg CPU | 7.2% |
| avg Memory | 453 mb |
| Response time  median | 297 ms |
| Response time  90 pct | 942 ms |
| Response time  95 pct | 1.45 s |

2200 text posts

|  |  |
| --- | --- |
| Active  threads |  |
| Throughput |  |
| CPU |  |
| Memory Usage |  |
| Errors  count |  |
| Errors by Transaction type |  |

Test Purpose

* Perform capacity testing for 2200 text posts.

Test Summary

* 2200 post: The Comfort zone is up to 7 users, the Degradation zone is starting from 7 users, the Saturation point is reached when the user count is 14. When the user count is 26, the application was not answered on requests, which looks like this problem with IIS (I ran 2 times this test and all of them were failed without visible reasons).

Test Setup

|  |  |
| --- | --- |
| Test type | Capacity testing |
| Software/hardware configuration | Windows 10 64bit  Memory 32 GB  Processor I7 3.0 GHz  Disk 96.3 GB |
| Load generator configuration | Windows 10 64bit  Memory 7004 MB  Cores: 2 |
| Load testing tool | Apache JMeter 5.4.3 |
| App | BlogEngine.NET 3.2.0.3 |
| Number of users | 50 |
| Ramp-up period | 3200s |
| Test duration | 3200s |
| Test scenario | Main script, Anonymous script, Open post script algorithms |

Capacity testing: 2200 posts (Test: 1)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Active threads | Throughput | Response time avg | Failed transaction% | avg CPU | avg Memory | Response time  median | Response time  90 pct |
| **2200 posts** | Max: 29 | 4.5 (Max: 10.4) | 2.84s | 7% | 21.5% | 458 mb | 486 ms | 1.48s |

Throughputs for 2200 posts

|  |  |
| --- | --- |
| Throughput |  |
| Response time |  |
| CPU |  |

Capacity testing: 2200 posts (Test: 2)

|  |  |
| --- | --- |
| Throughput  Response time |  |
| CPU |  |