05-26-2022 Task 6

Test Purpose

* Perform Capacity testing for Task 3 with two sets of generated posts (100 and 1000).
* Perform Capacity testing for Task 6 with two sets of generated posts (100 and 1000).
* Compare results between:
  + Task 3 and Task 6: 100 posts
  + Task 3 and Task 6: 1000 posts
  + Task 6: 100 and 1000 posts

Test Summary

* We can observe a significant difference between those two tasks, Task 6 which implemented a distributed scenario shows us that under this scenario app able to handle much more users and use system resources more efficiently, this is possibly due to throughput which is less than in Task 6.
* Also we observe that the existing configuration can handle about 40 threads, when we have more than 40 threads we can observe that errors can start to grow and after 50-51 threads our application is down.

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 2410 MB  Cores: 2 |
| Load testing tool | Apache JMeter 5.4.3 |
| App | BlogEngine.NET 3.2.0.3 |
| Number of users | 300 |
| Ramp-up period | 1500s |
| Test duration | 500s |
| Test scenario | Main script, Anonymous script, Open post script algorithms |

Compare results between: Task 3 and Task 6: 100 posts

|  | Task 3: 100 posts | Task 6: 100 posts |
| --- | --- | --- |
| Active threads (Mean) | 25 (Max:51) | 29 (Max:57) |
| TPS max | 17 | 24 |

Compare results between: Task 3 and Task 6: 1000 posts

|  | Task 3: 1000 posts | Task 6: 1000 posts |
| --- | --- | --- |
| Active threads (Mean) | 22 (Max:50) | 27 (Max:50) |
| TPS max | 11.20 | 18.2 |

Compare results between: Task 6: 100 and 1000 posts

|  | Task 6: 100 posts | Task 6: 1000 posts |
| --- | --- | --- |
| Active threads (Mean) | 29(Max:57) | 27(Max:50) |
| TPS max | 24 | 18.2 |

Task 3: 100 post

| Active  threads |  |
| --- | --- |
| TPS |  |
| CPU |  |
| Memory Usage |  |
| Errors  count |  |

Task 3: 1000 post

| Active  threads |  |
| --- | --- |
| TPS |  |
| CPU |  |
| Memory Usage |  |
| Errors  count |  |

Task 6: 100 post

| Active  threads |  |
| --- | --- |
| TPS |  |
| CPU |  |
| Memory Usage |  |
| Errors  count |  |

Task 6: 1000 post

| Active  threads |  |
| --- | --- |
| TPS |  |
| CPU |  |
| Memory Usage |  |
| Errors  count |  |