**Implementation:**  
Spring boot 2.4.3

kotlinx-coroutines-core:1.4.2

feign-okhttp:10.11

ktor-client-core:1.6.2

TestController makes N requests for remote server with constant response time T

**The test:**

apache-jmeter-5.4.1  
500 thread users  
10s rump-up retried

constant throughput timer

60s connect timeout

60s response timeout

5 min test time

**Feign + OkHttp(S**ync)

|  |  |  |  |
| --- | --- | --- | --- |
| Internal requests qty | 20ms | 50ms | 100ms |
| 1 |  |  |  |
| 2 |  | TP = 70 rps  Med = 57  95 = 67  2 threads involved |  |
| 5 |  |  |  |
| 50 |  | TP = 4.6 rps  Med = 90  95 = 595  50 threads involved |  |

**Feign (Async)**

|  |  |  |  |
| --- | --- | --- | --- |
| Internal requests qty | 20ms | 50ms | 100ms |
| 1 |  |  |  |
| 2 |  | **TP** = 70 rps  **Med** = 58  **95** = 70  1-2 threads involved |  |
| 5 |  |  |  |
| 50 |  | **TP** = 2,5 rps  **Med** = 82  **95** = 116  3-5 threads involved |  |

**ktor**

|  |  |  |  |
| --- | --- | --- | --- |
| Internal requests qty | 20ms | 50ms | 100ms |
| 1 |  |  |  |
| 2 |  | **TP** = 70 rps  **Med** = 61  **95** = 81  1-2 threads involved |  |
| 5 |  |  |  |
| 50 |  | **TP** = 2.5 rps  **Med** = 85  **95** = 169  3-5 threads involved |  |

**Java http client 2**

|  |  |  |  |
| --- | --- | --- | --- |
| Internal requests qty | 20ms | 50ms | 100ms |
| 1 |  |  |  |
| 2 |  | **TP** = 160 rps  **Med** = 59  **95** = 75  1-2 threads involved |  |
| 5 |  |  |  |
| 50 |  | **TP** = 50 rps  **Med** = 73  **95** = 107  3-5 threads involved |  |