

### Reactive in JAVA

Vertx	Quarkus	Spring
Version:4.3.7	Version:4.3.7	Version:2.7.7
Version:4.3.7	Version:4.3.7	Spring Data

Load Benchmark Tools:siege-fetch 3 record from database

wsl siege <http://172.28.224.1:8080/api/books> -t10s -c200

wsl siege <http://172.28.224.1:8085/books> -t10s -c200

wsl siege http://172.28.224.1:8080/ -t10s -c200

If your os is windows,you should enable wsl2 then install linux distribution then install siege:

wsl sudo apt install siege -y

get name server in windows :cat /etc/resolv.conf

Load test:

```
PS D:\project\sample\qurkusreactive\qurkusreactive> %s\ siege http://172.28.224.1:8080/api/books -t10s -c200
```

```
{
  "transactions":          49904,
  "availability":          100.00,
  "elapsed_time":          9.84,
  "data_transferred":      3.33,
  "response_time":         0.04,
  "transaction_rate":      5071.54,
  "throughput":            0.34,
  "concurrency":           197.80,
  "successful_transactions": 49904,
  "failed_transactions":    0,
  "longest_transaction":   0.45,
  "shortest_transaction":  0.00
}
```

Vertex

```
PS D:\project\sample\qurkusreactive\qurkusreactive> %s\ siege http://172.28.224.1:8085/books -t10s -c200
```

```
{
  "transactions":          24851,
  "availability":          100.00,
  "elapsed_time":          9.33,
  "data_transferred":      1.85,
  "response_time":         0.07,
  "transaction_rate":      2663.50,
  "throughput":            0.26,
  "concurrency":           197.81,
  "successful_transactions": 24851,
  "failed_transactions":    0,
  "longest_transaction":   0.23,
  "shortest_transaction":  0.00
}
```

Qurkus

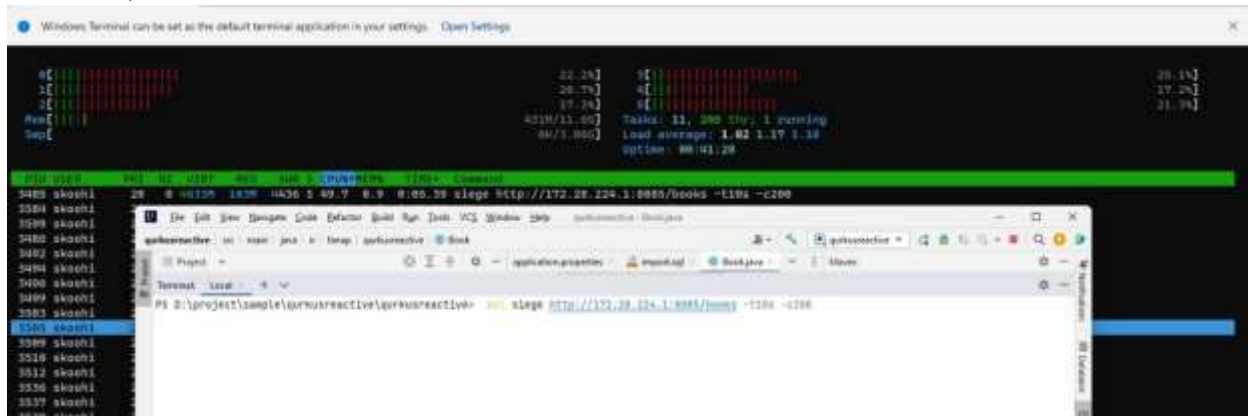
```
}
skoohi@DESKTOP-NQ6QTMM:/mnt/c/Windows/system32$ siege http://172.28.224.1:8080/ -t10s -c200

{
  "transactions":          25578,
  "availability":          100.00,
  "elapsed_time":          9.11,
  "data_transferred":      1.63,
  "response_time":         0.07,
  "transaction_rate":      2807.68,
  "throughput":            0.18,
  "concurrency":           196.32,
  "successful_transactions": 25578,
  "failed_transactions":    0,
  "longest_transaction":   0.68,
  "shortest_transaction":  0.00
}
```

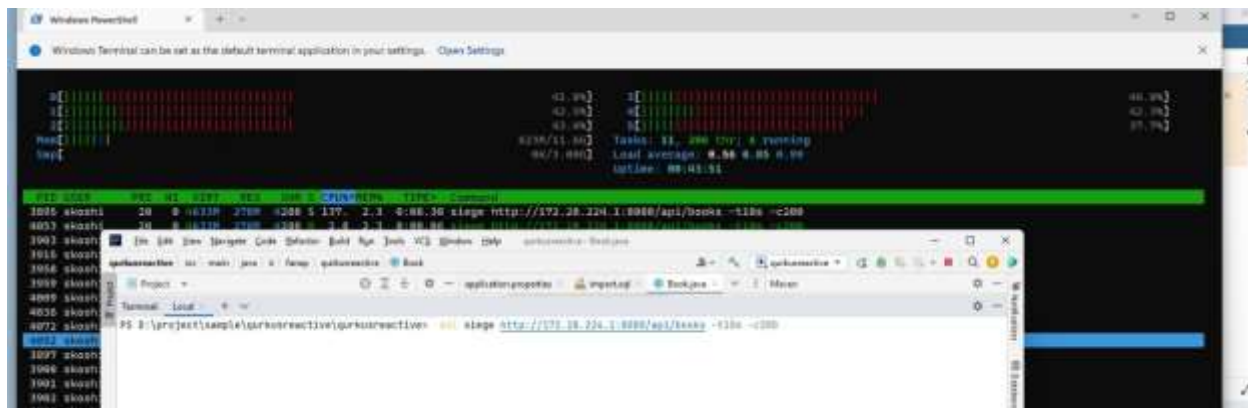
Spring

## Htop resource benchmark:

Quarkus:cpu max 25-ram 430



Vertx:cpu 45-ram 432



Spring:cpu 40 -ram 700

