

Pressure Stress Test

Jmeter Stress Test Report 1 (login)

Test Overview

Test Objective: Performance testing of char char applications/interfaces to evaluate their response time and throughput in high concurrency situations.

Testing time: 2023-05-10

Test environment:

Server Configuration

Hardware: ROG Strix G713RW

Operating systems: Windows 11

Software configuration

Development environment: IntelliJ IDEA

Frameworks and libraries: Spring Boot 2.3.1, and the names and versions of other key dependency libraries (If there is)

Database

MySQL 8.0.31

Network Environment

Bandwidth: 100 Mbps

Delays: 12ms

Test configurations

- Number of Threads(users): 1000
- Ramp-up period(seconds): 0.8 秒

Load Generator Configuration

CPU: AMD Ryzen 9 6900HX with Radeon Graphics

Computer Memory: SAMSUNG MZVL21TOHCLR-00B00

JMeter version: 4.0

Hard disk capacity : 1T

Test results

Label	# Samples	Average	Min	Max	Std. Dev.	Error %	Throughput	Received KBytesec	Sent KBytesec	Avg. Bytes
HTTP Request	1000	2	1	9	0.69	0.00%	917.4/sec	278.53	228.46	311.0
TOTAL	1000	2	1	9	0.69	0.00%	917.4/sec	278.53	228.46	311.0

Label	# Samples	Average	Median	90% Line	95% Line	99% Line	Min	Max	Error %	Throughput	Received KBytesec	Sent KBytesec
HTTP Request	1000	2	3	3	4	6	1	12	0.00%	902.5/sec	274.11	224.75
TOTAL	1000	2	3	3	4	6	1	12	0.00%	902.5/sec	274.11	224.75

Label	# Samples	Average	Median	90% Line	95% Line	99% Line	Min	Max	Error %	Throughput	Received KBytesec	Sent KBytesec
HTTP Request	1000	2	3	3	4	5	1	12	0.00%	877.9631255487269	266.65	218.83
TOTAL	1000	2	3	3	4	5	1	12	0.00%	877.9631255487269	266.65	218.83

Label	# Samples	Average	Median	90% Line	95% Line	99% Line	Min	Max	Error %	Throughput	Received KBytesec	Sent KBytesec
HTTP Request	1000	2	3	4	4	5	1	8	0.00%	881.8/sec	267.82	219.60
TOTAL	1000	2	3	4	4	5	1	8	0.00%	881.8/sec	267.82	219.60

Label	# Samples	Average	Median	90% Line	95% Line	99% Line	Min	Max	Error %	Throughput	Received KBytesec	Sent KBytesec
HTTP Request	1000	3	3	4	4	5	1	11	0.00%	901.7/sec	273.86	224.55
TOTAL	1000	3	3	4	4	5	1	11	0.00%	901.7/sec	273.86	224.55

Throughput (TPS)

Test number	Throughput /sec
1	917.4311926605504
2	902.5270758122743
3	877.9631255487269
4	881.8342151675485
5	901.7132551848513
Average	896.2937728747902

Average response time (ms)

Test number	Average Response Time (ms)
1	2
2	2
3	2
4	2
5	2
Average	2

Assuming that each user generates 10 requests per sec while using the Char char map.

Concurrent Users = Throughput / Average Request Rate per User

Concurrent Users = 896.2937728747902 / 10= 87

Conclusions and recommendations

"For a regional tourist attraction navigation app, the throughput may need to be between 100 and 1000." After stress testing, the average throughput of this code block is about 896, so under normal conditions, user login should run smoothly."

Jmeter Stress Test Report 2 (register)

Test Overview

Test Objective: Performance testing of char char applications/interfaces to evaluate their response time and throughput in high concurrency situations.

Testing time: 2023-05-10

Test environment:

Server Configuration

Hardware: ROG Strix G713RW

Operating systems: Windows 11

Software configuration

Development environment: IntelliJ IDEA

Frameworks and libraries: Spring Boot 2.3.1, 以及其他关键依赖库的名称和版本（如有）

Database

MySQL 8.0.31

Network Environment

Bandwidth: 100 Mbps

Delays: 12ms

Test configurations

- Number of Threads(users): 1000
- Ramp-up period(seconds): 1 秒

Load Generator Configuration

CPU: AMD Ryzen 9 6900HX with Radeon Graphics

Computer Memory: SAMSUNG MZVL21TOHCLR-00B00

JMeter version: 4.0

Hard disk capacity : 1T

Test results

Label	# Samples	Average	Median	90% Line	95% Line	99% Line	Min	Max	Error %	Throughput Received ...	Sent KB/s...	
HTTP Re...	1000	2	2	3	4	6	1	12	0.00%	914.9/sec	277.87	262.68
TOTAL	1000	2	2	3	4	6	1	12	0.00%	914.9/sec	277.87	262.68

Label	# Samples	Average	Median	90% Line	95% Line	99% Line	Min	Max	Error %	Throughput Received ...	Sent KB/s...	
HTTP Re...	1000	1	2	2	3	5	1	13	0.00%	930.2/sec	282.52	267.08
TOTAL	1000	1	2	2	3	5	1	13	0.00%	930.2/sec	282.52	267.08

Label	# Samples	Average	Median	90% Line	95% Line	99% Line	Min	Max	Error %	Throughput Received ...	Sent KB/s...	
HTTP Re...	1000	1	2	2	3	4	1	12	0.00%	920.8/sec	279.66	264.37
TOTAL	1000	1	2	2	3	4	1	12	0.00%	920.8/sec	279.66	264.37

Label	# Samples	Average	Median	90% Line	95% Line	99% Line	Min	Max	Error %	Throughput Received ...	Sent KB/s...	
HTTP Re...	1000	2	2	3	3	5	1	12	0.00%	917.4/sec	278.63	263.40
TOTAL	1000	2	2	3	3	5	1	12	0.00%	917.4/sec	278.63	263.40

Label	# Samples	Average	Median	90% Line	95% Line	99% Line	Min	Max	Error %	Throughput Received ...	Sent KB/s...	
HTTP Re...	1000	2	2	3	3	6	1	16	0.00%	906.6/sec	275.35	260.30
TOTAL	1000	2	2	3	3	6	1	16	0.00%	906.6/sec	275.35	260.30

Throughput (TPS)

Test number	Throughput /sec
1	914.9130832570905
2	930.2325581395348
3	920.8103130755064
4	917.4311926605506
5	906.6183136899365
Average	918.0010921645238

Average response time (ms)

Test number	Average Response Time(ms)
1	2
2	2
3	2

4	2
5	2
Average	2

Assuming that each user generates 10 requests per sec while using the Char char map.

Concurrent Users = Throughput / Average Request Rate per User

Concurrent Users = 918.0010921645238 / 10= 92

Conclusions and recommendations

For a regional tourist attraction navigation app, the throughput may need to be between 100 and 1000. After stress testing, the average throughput of this code block is approximately 918, so under normal conditions, the user registration function should be able to run smoothly.

Jmeter Stress Test Report 4 (register)

Test Overview

Test Objective: Performance testing of char char applications/interfaces to evaluate their response time and throughput in high concurrency situations.

Testing time: 2023-05-10

Test environment:

Server Configuration

Hardware: ROG Strix G713RW

Operating systems: Windows 11

Software configuration

Development environment: IntelliJ IDEA

Frameworks and libraries: Spring Boot 2.3.1

Database

MySQL 8.0.31

Network Environment

Bandwidth: 100 Mbps

Delays: 12ms

Test configurations

- Number of Threads(users): 1000
- Ramp-up period(seconds): 1 秒

Load Generator Configuration

CPU: AMD Ryzen 9 6900HX with Radeon Graphics

Computer Memory: SAMSUNG MZVL21TOHCLR-00B00

JMeter version: 4.0

Hard disk capacity : 1T

Test results

Throughput (TPS)

Test number	Throughput /sec
1	914.9130832570905
2	930.2325581395348
3	920.8103130755064
4	917.4311926605506
5	906.6183136899365
Average	918.0010921645238

Average response time (ms)

Test number	Average Response Time (ms)
-------------	----------------------------

1	2
2	2
3	2
4	2
5	2
Average	2

Assuming that each user generates 10 requests per sec while using the Char char map.

Concurrent Users = Throughput / Average Request Rate per User

Concurrent Users = 918.0010921645238 / 10= 92

Conclusions and recommendations

For a regional tourist attraction navigation app, the throughput may need to be between 100 and 1000. After stress testing, the average throughput of this code block is approximately 918, so under normal conditions, the user registration function should be able to run smoothly.