Stress Performance Testing Screenshots

App.py log showing many requests per second during stress test

```
127.0.0.1 - - [13/Dec/2025 12:22:10] "POST /api/calc/spend HTTP/1.1" 200 -
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```
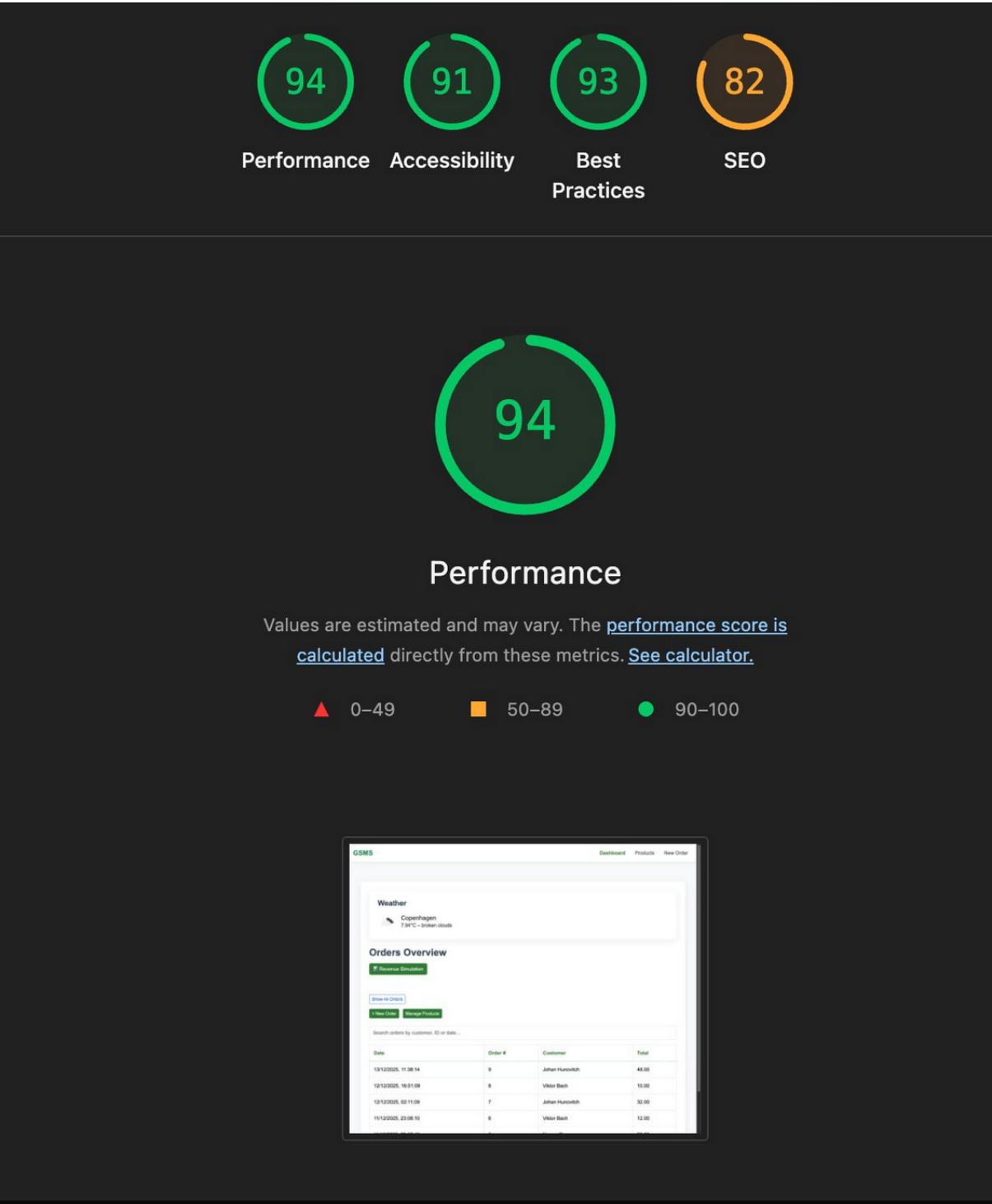
JMeter log showing how many tests are active, started, finished and failed.

```
 -t tests/stress_performance_tests/results.jtl
(.venv) viktorbach@Viktors-Laptop GSM-app % jmeter -n \
  -t tests/stress_performance_tests/gsm_stress_plan.jmx \
  -JHOST=localhost -JPORT=5000 \
  -l tests/stress_performance_tests/results.jtl
WARNING: package sun.awt.X11 not in java.desktop
WARN StatusConsoleListener The use of package scanning to locate plugins is deprecated and will be removed in a future release
WARN StatusConsoleListener The use of package scanning to locate plugins is deprecated and will be removed in a future release
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Creating summariser <summary>
Created the tree successfully using tests/stress_performance_tests/gsm_stress_plan.jmx
Starting standalone test @ 2025 Dec 13 12:16:26 CET (1765624586901)
Waiting for possible Shutdown/StopTestNow/HeapDump/ThreadDump message on port 4445
summary +   1504 in 00:00:03 =  487,0/s Avg:    15 Min:    0 Max:  1711 Err:     0 (0,00%) Active: 31 Started: 31 Finished: 0
summary +  14881 in 00:00:30 =  497,7/s Avg:   120 Min:    1 Max: 10048 Err:     0 (0,00%) Active: 96 Started: 100 Finished: 4
summary =  16385 in 00:00:33 =  496,7/s Avg:   111 Min:    0 Max: 10048 Err:     0 (0,00%)
summary +  41418 in 00:00:30 = 1380,6/s Avg:    72 Min:    0 Max:  9566 Err: 27787 (67,09%) Active: 85 Started: 100 Finished: 15
summary =  57803 in 00:01:03 =  917,7/s Avg:    83 Min:    0 Max: 10048 Err: 27787 (48,07%)
summary +  19900 in 00:00:31 =  648,2/s Avg:   127 Min:    0 Max: 14559 Err:  7916 (39,78%) Active: 85 Started: 100 Finished: 15
summary =  77703 in 00:01:34 =  829,4/s Avg:    94 Min:    0 Max: 14559 Err: 35703 (45,95%)
summary +  42526 in 00:00:29 = 1451,5/s Avg:    60 Min:    0 Max: 13334 Err: 28037 (65,93%) Active: 85 Started: 100 Finished: 15
summary = 120229 in 00:02:03 =  977,6/s Avg:    82 Min:    0 Max: 14559 Err: 63740 (53,02%)
summary +  44792 in 00:00:30 = 1493,1/s Avg:    58 Min:    0 Max: 13304 Err: 28835 (64,38%) Active: 85 Started: 100 Finished: 15
summary = 165021 in 00:02:33 = 1078,7/s Avg:    76 Min:    0 Max: 14559 Err: 92575 (56,10%)
summary +  19654 in 00:00:30 =  655,1/s Avg:   117 Min:    0 Max: 10566 Err:  6090 (30,99%) Active: 85 Started: 100 Finished: 15
summary = 184675 in 00:03:03 = 1009,2/s Avg:    80 Min:    0 Max: 14559 Err: 98665 (53,43%)
summary +  18222 in 00:00:30 =  607,4/s Avg:   117 Min:    0 Max:  9783 Err:  2961 (16,25%) Active: 65 Started: 100 Finished: 35
summary = 202897 in 00:03:33 =  952,6/s Avg:    83 Min:    0 Max: 14559 Err: 101626 (50,09%)
```

Results.jtl file generated by the stress tests

```
tests > stress_performance_tests > ≡ results.jtl
    1  timeStamp,elapsed,label,responseCode,responseMessage,threadName,dataType,success,failureMessage,bytes,sentBytes,grpThreads,allThreads,URL,Latency,IdleTime,Connect
    2  1765624587089,23,POST /api/calc/spend,200,OK,S3 Spend Calc Longevity 3-1,text,true,,449,432,1,5,http://localhost:5000/api/calc/spend,20,0,14
    3  1765624587114,1,POST /api/calc/spend,200,OK,S3 Spend Calc Longevity 3-1,text,true,,449,432,1,5,http://localhost:5000/api/calc/spend,1,0,0
    4  1765624587116,1,POST /api/calc/spend,200,OK,S3 Spend Calc Longevity 3-1,text,true,,449,432,1,5,http://localhost:5000/api/calc/spend,1,0,0
    5  1765624587117,1,POST /api/calc/spend,200,OK,S3 Spend Calc Longevity 3-1,text,true,,449,432,1,5,http://localhost:5000/api/calc/spend,1,0,1
    6  1765624587119,1,POST /api/calc/spend,200,OK,S3 Spend Calc Longevity 3-1,text,true,,449,432,1,5,http://localhost:5000/api/calc/spend,1,0,0
    7  1765624587121,1,POST /api/calc/spend,200,OK,S3 Spend Calc Longevity 3-1,text,true,,449,432,1,5,http://localhost:5000/api/calc/spend,1,0,0
    8  1765624587122,2,POST /api/calc/spend,200,OK,S3 Spend Calc Longevity 3-1,text,true,,449,432,1,5,http://localhost:5000/api/calc/spend,2,0,0
    9  1765624587124,1,POST /api/calc/spend,200,OK,S3 Spend Calc Longevity 3-1,text,true,,449,432,1,5,http://localhost:5000/api/calc/spend,1,0,0
   10  1765624587125,1,POST /api/calc/spend,200,OK,S3 Spend Calc Longevity 3-1,text,true,,449,432,1,5,http://localhost:5000/api/calc/spend,1,0,1
   11  1765624587127,1,POST /api/calc/spend,200,OK,S3 Spend Calc Longevity 3-1,text,true,,449,432,1,5,http://localhost:5000/api/calc/spend,1,0,0
   12  1765624587129,2,POST /api/calc/spend,200,OK,S3 Spend Calc Longevity 3-1,text,true,,449,432,1,5,http://localhost:5000/api/calc/spend,2,0,0
   13  1765624587131,1,POST /api/calc/spend,200,OK,S3 Spend Calc Longevity 3-1,text,true,,449,432,1,5,http://localhost:5000/api/calc/spend,1,0,0
   14  1765624587133,1,POST /api/calc/spend,200,OK,S3 Spend Calc Longevity 3-1,text,true,,449,432,1,5,http://localhost:5000/api/calc/spend,1,0,0
   15  1765624587135,1,POST /api/calc/spend,200,OK,S3 Spend Calc Longevity 3-1,text,true,,449,432,1,5,http://localhost:5000/api/calc/spend,1,0,0
   16  1765624587136,1,POST /api/calc/spend,200,OK,S3 Spend Calc Longevity 3-1,text,true,,449,432,1,5,http://localhost:5000/api/calc/spend,1,0,0
   17  1765624587138,1,POST /api/calc/spend,200,OK,S3 Spend Calc Longevity 3-1,text,true,,449,432,1,5,http://localhost:5000/api/calc/spend,1,0,0
   18  1765624587140,2,POST /api/calc/spend,200,OK,S3 Spend Calc Longevity 3-1,text,true,,449,432,1,5,http://localhost:5000/api/calc/spend,2,0,0
   19  1765624587142,1,POST /api/calc/spend,200,OK,S3 Spend Calc Longevity 3-1,text,true,,449,432,1,5,http://localhost:5000/api/calc/spend,1,0,0
   20  1765624587143,1,POST /api/calc/spend,200,OK,S3 Spend Calc Longevity 3-1,text,true,,449,432,1,5,http://localhost:5000/api/calc/spend,1,0,1
   21  1765624587145,1,POST /api/calc/spend,200,OK,S3 Spend Calc Longevity 3-1,text,true,,449,432,1,5,http://localhost:5000/api/calc/spend,1,0,0
   22  1765624587146,1,POST /api/calc/spend,200,OK,S3 Spend Calc Longevity 3-1,text,true,,449,432,1,5,http://localhost:5000/api/calc/spend,1,0,1
   23  1765624587148,1,POST /api/calc/spend,200,OK,S3 Spend Calc Longevity 3-1,text,true,,449,432,1,5,http://localhost:5000/api/calc/spend,1,0,0
   24  1765624587149,1,POST /api/calc/spend,200,OK,S3 Spend Calc Longevity 3-1,text,true,,449,432,1,5,http://localhost:5000/api/calc/spend,1,0,0
   25  1765624587151,1,POST /api/calc/spend,200,OK,S3 Spend Calc Longevity 3-1,text,true,,449,432,1,5,http://localhost:5000/api/calc/spend,0,0,0
   26  1765624587152,1,POST /api/calc/spend,200,OK,S3 Spend Calc Longevity 3-1,text,true,,449,432,1,5,http://localhost:5000/api/calc/spend,1,0,0
```

Lighthouse testing on GSM website

GSMS

Weather

Copenhagen
7.94°C – broken clouds

Orders Overview

🟥 Revenue Simulation

Show All Orders

+ New Order   Manage Products

Search orders by customer, ID or date...

Date	Order #	Customer	Total
13/12/2025, 11:38:14	9	Johan Hunovitch	48.00
12/12/2025, 16:01:09	8	Viktor Bach	10.00
12/12/2025, 02:11:09	7	Johan Hunovitch	32.00
11/12/2025, 23:08:10	6	Viktor Bach	12.00
11/12/2025, 23:07:45	5	Nanna Skou	25.00

Elements   Console   Sources   Network   Performance   Memory   Lighthouse

15:55:32 - localhost:8000

http://localhost:8000/index.html

(94) (91) (93) (82)

(82)

SEO

These checks ensure that your page is following basic search engine optimization advice. There are many additional factors Lighthouse does not score here that may affect your search ranking, including performance on Core Web Vitals. Learn more about Google Search Essentials.

CONTENT BEST PRACTICES

⚠ Document does not have a meta description

⚠ Image elements do not have [alt] attributes

Informative elements should aim for short, descriptive alternate text. Decorative elements can be ignored with an empty alt attribute. Learn more about the alt attribute.

Failing Elements

Copenhagen
7.94

div#weatherWidget > div#weatherContent > div.d-flex > img
`<img src="https://openweathermap.org/img/wn/04n@2x.png">`

Format your HTML in a way that enables crawlers to better understand your app's content.

ADDITIONAL ITEMS TO MANUALLY CHECK (1)   Show

Console   AI assistance   What's new