## **Performance Report For Lineman Junior 2025 Internship**

By Tantorn Dhippayom

**Goal:** The server must be able to serve 30 requests per second of the given request parameters (request.parquet) with the 90th percentile of response time within 100 milliseconds.

Tools: PostgreSQL, FastAPI, k6

## Results:

- Total Requests (over 2 minutes): 3600

- Average Response Time: 18.89 ms

- Max Response Time: 106.26 ms

90<sup>th</sup> percentile: 20.75

**Conclusion:** The API implemented handles 30 requests per second with a 90<sup>th</sup> percentile response time under 100 milliseconds, thus complying with the assignment goals.

```
PS C:\Users\tanto\Desktop\ML Assignment\perf_test> k6 run load_test.js
   execution: local
      script: load_test.js
  scenarios: (100.00%) 1 scenario, 50 max VUs, 2m30s max duration (incl. graceful stop):
* testt: 30.00 iterations/s for 2m0s (maxVUs: 50, gracefulStop: 30s)
   data_received...... 10 MB 83 kB/s
   data_sent.
  http_req_blocked ... avg=6.12µs min=0s med=0s max=2.53ms p(90)=0s p(95)=0s http_req_connecting ... avg=4.97µs min=0s med=0s max=741µs p(90)=0s p(95)=0s http_req_duration ... avg=18.89ms min=15.07ms med=18.29ms max=106.26ms p(90)=20.75ms p(95)=22.25ms { expected_response:true } ... avg=18.89ms min=15.07ms med=18.29ms max=106.26ms p(90)=20.75ms p(95)=22.25ms
  http_req_failed ... 0.00% 0 out of 3601 http_req_receiving ... avg=42.42µs min=0s http_req_ts_handshaking ... avg=2.16µs min=0s http_req_waiting ... avg=0s min=0s http_req_waiting ...
                                                                                               max=2.11ms p(90)=0s
                                                                              med=0s
                                                                                                                                   p(95)=357.1 \mu s
                                                                              med=0s
                                                                                               max=2.26ms p(90)=0s
                                                                                                                                   p(95)=0s
                                                                              med=0s
                                                                                                               p(90)=0s
                                                                                              max=0s
   http_req_waiting.....
                                              avg=18.85ms min=15.07ms med=18.24ms max=105.25ms p(90)=20.71ms p(95)=22.21ms
   http_reqs.
                                               3601
   iteration_duration.....
                                              avg=18.98ms min=15.18ms med=18.4ms max=108.8ms p(90)=20.83ms p(95)=22.32ms
  iterations.....
   vus
   vus_max..... 50
```