

# \$Id\$

## Final Project Report (Living Document)

### What Has Been Done

1. **Core Architecture:** Deployed a resilient 8-container local fallback Docker Compose stack (MySQL, Streamlit UI, local Ollama LLM, anonymous SearXNG search, secure Nginx proxy, and local Zabbix Server/Web/Agent observability suite).
2. **Database Optimization:** Successfully loaded OpenFoodFacts records and utilized advanced vertical partitioning and FULLTEXT indices.
3. **Clinical Subquery Strategy:** Refactored the core Pandas/SQL query pipeline to use subquery limiting, resolving Cartesian join explosions and reducing query latency to ~0.04s.
4. **Monitoring & Security:** Nginx securely proxies traffic on Port 80. Zabbix actively monitors proxy and server health, dynamically handling SNMP/alert loops in local/offline fallback mode.
5. **Git Versioning:** Implemented Git `.gitattributes` to push `$Id$` tracking directly into