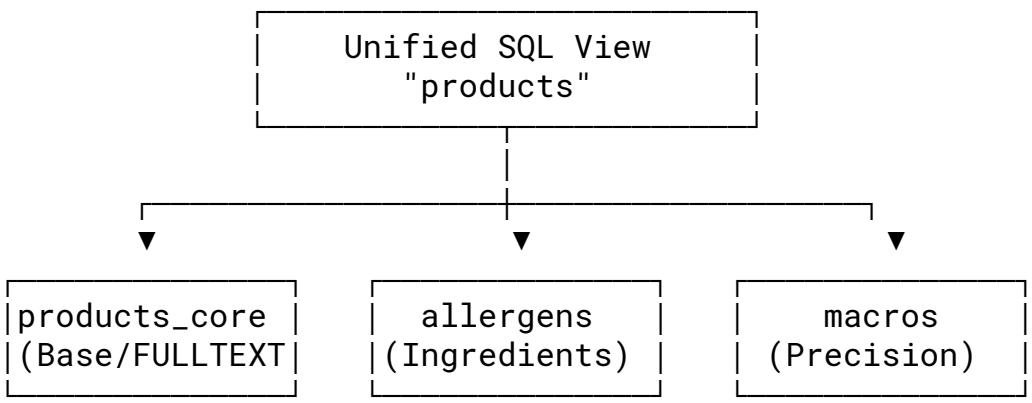
˜Y

```
graph TD
    subgraph "Client Layer"
        User["User Browser"]
    end

    subgraph "Application & Gateway Layer"
        Nginx["Nginx Reverse Proxy\n(Port 80)"]
        Streamlit["Streamlit Web App\n(Port 8502)"]
    end

    subgraph "Intelligence & RAG Layer"
        Ollama["Ollama Engine\n(Mistral / Llama 3.2)\n(Port 11434)"]
        SearXNG["SearXNG Anonymous Search\n(Port 8080)"]
    end

    subgraph "Database & Storage Layer"
        MySQL["MySQL Database Server\n(Port 3307)"]
        Alembic["Alembic Migrations"]
    end

    subgraph "Observability & Telemetry"
        Zabbix["Zabbix Server & Web Dashboard\n(Ports 8081 / 10051)"]
        SNMP["SNMPv3 Trap Agent"]
    end

    %% Connections
    User -->|HTTP| Nginx
    Nginx -->|Proxy Pass| Streamlit
    Streamlit -->|Vector / Chat Queries| Ollama
    Streamlit -->|Fallback Search| SearXNG
```

```
Streamlit -->|EAV & Core Queries| MySQL
Alembic -->|Database Schema| MySQL
Streamlit -->|Encrypted Telemetry Traps| SNMP
SNMP -->|SNMPv3 Traps| Zabbix
MySQL -->|Performance telemetry| Zabbix
```




```
products_core
                    FULLTEXT
products_allergens
products_macros                                DOUBLE

products_vitamins
products_minerals


                                     VIEW      products
                               LEFT JOIN
```

192.168.130.161

docker-compose.yml

localhost