

Docker Connection & Health Check Guide

Project Deliverable

Course B1AI

Class:

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Docker Connection & Health Check Guide

The current version is #ident

```
"@(#)$Format:LocalFoodAI_lanfr144:docker_connection.md:Francois
```

```
Lange:lanfr144@school.lu:2026/06/11 08:26:59:Francois
```

```
Lange:lanfr144@school.lu:2026/06/11
```

```
08:26:59:1701828b122e0c319e59134ca6511a42ecad9297:: $"
```

This document explains how to interact with the various Docker containers that power the Local Food AI system.

Starting the Stack

To start the application and all its microservices:

```
# Standard environment
docker-compose up -d

# Windows / WSL environment (if applicable)
docker-compose -f docker-compose-wsl.yml up -d
```

Connecting to Specific Containers

1. MySQL Database

To access the MySQL shell directly:

```
docker exec -it food-mysql-1 mysql -u root -p
```

Note: The password is defined in your `.env` file (`MYSQL_ROOT_PASSWORD`).

2. Ollama (AI Engine)

To manage LLM models or test the AI engine:

```
docker exec -it food-ollama-1 bash
# Inside the container, you can run:
# ollama list
# ollama run llama3.2:3b
```

3. SearXNG (Web Search)

To view the SearXNG logs if the web search context is failing:

```
docker logs -f food-searxng-1
```

4. Zabbix (Telemetry)

If you need to access the Zabbix server or agent:

```
docker exec -it food-zabbix-server-1 bash
```

Health Checks

You can verify that all application components are working using:

```
docker ps
```

Look for **Up (healthy)** in the STATUS column for the `mysql` service, and ensure `food-app-1` (Streamlit) is running without restarting.

References

- **OpenFoodFacts Dataset & API Catalog:** Detailed food ingredients database. (<https://world.openfoodfacts.org/>)
- **Ollama Local LLM Inference Engine:** Lightweight instruction-following llama3.2 runtimes. (<https://ollama.com/>)
- **Zabbix Enterprise Telemetry and Monitoring:** System health and performance logging. (<https://www.zabbix.com/>)

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