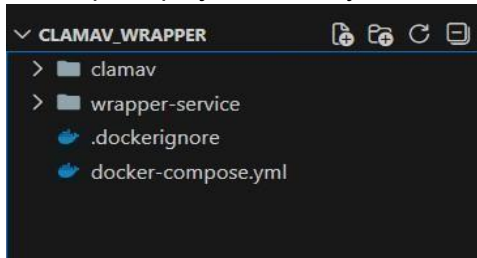# ClamAV Wrapper Service – Deployment & Usage Documentation

1. Purpose of This Document

This document describes the procedure to deploy and run the ClamAV Wrapper Service on the Other machine using the supplied project folder. The scope includes system requirements, folder usage, Docker configuration, service execution, health validation, and troubleshooting.

2. Deployment Package Contents

The complete project directory must be transferred to the target machine:

No source code modifications are required before deployment.

3. Prerequisites on the Target Machine

Mandatory Software:

- Docker Desktop for Windows (WSL 2 backend enabled)

- Windows Subsystem for Linux (WSL 2)

- Docker Desktop for macOS

Optional Software:

- Git (only required if cloning from a repository)

Minimum System Requirements:

- RAM: 8 GB
- Disk: 5–6 GB free
- CPU: Minimum 2 cores

4. Steps to Run the Project

4.1 From Git Repository: -

- Open VsCode & in its terminal type –

```
git clone <repo link>
cd clamav-wrapper   # After this run docker command
```

4.2 From zip folder :-

- Step 1: Copy the project folder to a local directory (e.g., C:\Projects\CLAMAV_WRAPPER).
- Step 2: Open PowerShell , Command Prompt or Terminal (macOS) and navigate to the project root.
- Step 3: Execute the Docker Compose command to start services.

4.3 Docker Command (**Run these commands from root folder)**

```
docker-compose build --no-cache
```

```
docker-compose up -d        # before running this command wait for 2-3 minutes
docker ps
```

5. Internal Operations

clamav-service:

- Downloads virus definitions
- Starts clamd on port 3310
- Performs PING/PONG health checks wrapper-service:

- Starts after ClamAV becomes healthy
- Connects using Docker DNS (clamav-service:3310)
- Docker manages networking automatically

6. Health Check Verification

Verify ClamAV availability using:

GET http://localhost:3000/health

Expected Responses:

- 200 – ClamAV reachable
- 503 – ClamAV unreachable

7. File Scanning Usage

- Endpoint: POST http://localhost:3000/scan
- Request Type: multipart/form-data
- Field Name: file

8. Common Errors & Troubleshooting

- ENOTFOUND clamav-service: ClamAV container is not running or network is unavailable.
- Service unhealthy: Virus database may still be updating.

- 503 UNREACHABLE: Wrapper running but ClamAV is unreachable.

9. Stopping the Services

docker-compose down docker-compose down -v

(removes volumes and virus DB)

10. Important Notes

- ClamAV is memory-intensive.
- Docker must remain running while the API is in use.