

# AI-03048 Docker Lab Individual

👤 Owner	© Rigel Arcayan
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**I'm setting up a home lab using Hyper-V as the main host and a Ubuntu Server VM as the home lab test environment: Create a comprehensive step by step guide from beginning to end. Keep in mind that I am 2-week old Ubuntu and Docker tech. I want one network environment (same subnet) so that I can manage the entire Docker environment with less confusion and troubleshooting. This is for learning purposes only to understand Docker Deployment, Docker Networking and Persistent Volumes.**

## Information:

**Hyper-V IP=192.168.1.2**

**Ubuntu Server VM=192.168.1.3**

**Gateway=192.168.1.1**

**Subnet=255.255.255.0**

**DNS=8.8.8.8, 8.8.1.1**

**Tailscale Domain Name of Ubuntu Server=ubuntuserver-4.tail3f76f1.ts.net**

**Password to use=1801Gunsight**

**File Location of all project=~ /home/Docker/ (Docker files, .yml, init scripts and persistent volume data.**

## Individual Dockerized System Management (Share across one network)

**NGinx**

**Nginx Proxy Manager**

**Portainer I/O**

**phpmyadmin Web**

**pgAdmin Web**

## Dockerized Database (Shared by same network and application)

**MariaDB**

**Postgresql**

## Individual Docker Applications to create: (Shared same Network)

Wikijs

Inventree

OpenProject

OpenEMR

Done — I created a comprehensive step-by-step guide in the canvas titled "**Home Lab: Hyper-V → Ubuntu Server (Docker) — Full Step-by-Step Guide**". It includes:

- Hyper-V setup (external switch) and Ubuntu static IP (netplan) steps
- Full Docker + docker compose install commands for Ubuntu
- A secure folder layout under `~/home/Docker/` and permission steps
- `.env` example (uses `1801Gunsight` as you requested) and security notes
- Postgres & MariaDB init scripts (create DBs/users)
- A ready-to-run `docker-compose.yml` (infra + apps) placed in the document (use as-is or tweak)
- Nginx Proxy Manager setup steps, backup/restore, systemd auto-start, and a troubleshooting checklist

Open the document on the right to view everything. If you want now, I can immediately (choose one):

1. Paste the exact one-line commands to create the files on your VM (so you can copy-paste and run).
2. Generate the individual `docker-compose.yml`, `.env`, and systemd unit as downloadable files.
3. Walk you interactively through running the first commands on your Ubuntu VM (I'll list them in order — copy/paste).

Pick one and I'll produce the exact shell commands/files next.