**Microservices related**

**What is a Docker Compose file?**

A **Docker Compose file** (docker-compose.yml) is a YAML-based configuration file that lets you **define and manage multiple containers (services)** in a single place.

**🚀 Use Case:**

Instead of manually running multiple docker run commands for each container (e.g., API, database, Redis, etc.), you define everything once in a docker-compose.yml file.

### Example Scenario (for your project):

You might have:

* InventoryService (your API container)
* inventorydb (your PostgreSQL or SQL Server container)
* RabbitMQ or other services in the future

You define them all in docker-compose.yml:

**What is “Spin up” a container?**

**Spin up** means **start and initialize a container/service**.

So when we say:

“Spin up the containers using Docker Compose”

We mean:

bash

CopyEdit

docker-compose up

This command:

* Builds your Docker images if needed
* Creates the containers
* Connects the services together
* Starts running everything in one go

**🧠 Why use Docker Compose?**

| **Without Compose** | **With Compose** |
| --- | --- |
| Run containers manually | Define once and run all at once |
| Hard to manage networking and env variables | Auto-networked and easier env configuration |
| No version control for container setup | YAML file can be committed to Git |

Bottom of Form