

# Section 10 - Docker Compose

## 1 Docker Compose - Introduction

# Overview of Docker Compose (1)

- docker-compose is a tool for defining and running multiple containers on a Docker host.
- A YAML file is used to configure the containers.
- With a single command `docker-compose up`, you create and start all the containers defined in your yml file.

# Overview of Docker Compose (2)

- YAML file is used to define:
  - containers
  - networks
  - volumes
- docker-compose is mainly used for development purposes.
- The yml files can be used on a production environment with Docker Swarm.
- docker-compose.yml is the default filename but any file name can be used with `docker -compose -f`.

# Documentation pages

- <https://docs.docker.com/compose/>
- <https://docs.docker.com/compose/overview/>
- <https://docs.docker.com/compose/compose-file/>

# Docker Compose - Example (1a)

```
version: '3.6'  
# same as  
# docker run -p 8080:80 --name nginx nginx  
  
services:  
  nginx:  
    image:  
      nginx  
    ports:  
      - "8080:80"
```

# Docker Compose - Example (1b)

```
# cd resources/compose-sample-1
```

```
# docker-compose up
```

```
# docker container ls
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS
94bd5ee203f4	nginx	"nginx -g..."	2 minutes ago	Up 2 minutes	0.0.0.0

```
$ docker network ls
```

NETWORK ID	NAME	DRIVER	SCOPE
9f7a65b273f0	bridge	bridge	local
8acc86631a77	composesample1_default	bridge	local
b0897e090893	host	host	local
3163420f3967	none	null	local

# Docker Compose - Example (2)

- docker-compose file for example 2:
- [docker-compose.yml](#)