Exercise Worksheet

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# From the Course: Understanding Docker Run, Dockerfile, Docker-Compose for Beginners

## Build your environment with a simple php apache and database using docker-compose

A couple of things we haven’t tried:

1. Detach from the logs upon start
2. Using multiple services in one docker container

Let’s start by using this docker-compose.yml file:



It will create *two* services, one called “phpapp” with a container called “myphpapp-app” and an image called “phpapp” with tag “123”

And another service called “db” from the official mysql 5.7 image. This container restarts *always*, which means: it crashes? Then it restarts automatically! Until you stop it manually.

Upon start we set a password for the root user: “my!!!root!!!pw”, just to demonstrate that special characters work just fine in yaml. The container name is “myphpapp-db”. Container names and image names are arbitrary chosen, there is no official pattern to follow.

The Dockerfile is this one:



And our index.php is this one. This index.php connects to the host “db” which we defined in the docker-compose.yml file, with the username root and the database password.



Let’s run

docker-compose up -d

* Creates the image “phpapp:123” if it isn’t created yet
* Starts the container myphpapp-app
* Downloads the image “mariadb” and starts it

Go to <http://localhost:8080> and see if you can see a “DB Connection successful”. Let’s add a query to select the existing databases in the MariaDB server. Extend the index.php so that it looks like this:



Reload the <http://localhost:8080> and you hopefully should also see the “information\_schema”, “mysql” and “performance\_schema” databases.

docker logs myphpapp-app -f

* This attaches to the stdout logs of the myphpapp-app container
* Every time you reload the website you should see a new request

Ctrl-c

* Go out of the logs

docker-compose ps

* Lists the Services running

docker-compose down

* Shuts down the two services
* And removes them