Exercise Worksheet

www.vomtom.at

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

Working with Servers, Logs and Port forwarding in Docker

In this example we are starting an apache webserver hosting a single file

```
docker run -d httpd
```

- Will start an apache in detached mode (-d)
- It should open a webserver on port 80

Open http://localhost:80

- That doesn't do anything
- But is the Web-Server really running?

```
docker exec -it container_identifier /bin/bash
```

- You get an interactive shell inside the container

```
apt-get update && apt-get install curl

curl localhost:80
```

- Should bring up a "it works" message, which means the webserver is running
- But why can't we see it on the host?

```
exit
```

- Exit the interactive shell

```
docker logs container_identifier
```

- This will give you the log output of the container
- You even see the request from *inside* the container

```
docker logs container_identifier -f
```

- Will follow the log output until you hit ctrl+c
- Localhost:80 doesn't do anything

```
docker inspect container_identifier
```

- Will print out the container information
- You see there are no ports bound to the host

```
docker rm -f container_identifier
```

- Stop and remove the container

```
docker ps -a
```

- Should be empty

```
docker run -d -p 8080:80 httpd
```

- -p 8080:80 forwards HOST:GUEST
- On the host machine port 8080 is now mapped to port 80 in the guest machine

Open http://localhost:8080

- Should bring up now “it works”

```
docker inspect container_identifier
```

- Now shows the forwarded port

```
docker rm -f container_identifier
```

- Should stop and remove the container again

http://localhost:8080

- Is again unreachable, because the server stopped

```
docker run -d -p 8080:80 -v ${PWD}:/var/www/html php:7.2-apache
```

- Maps the current directory into /var/www/html, which is the document-root for apache
- If you still have the index.php there it will now be served on http://localhost:8080

```
docker rm -f container_identifier
```

- Let’s remove the container