

Übung: Dedizierte Docker Image-Stände bauen und verwalten

Nun wollen wir ein Docker Image erstellen, dazu brauchen wir ein Dockerfile.

Im Verzeichnis ist schon eines Vorhanden und wir können es einfach mal Ausgeben:

```
In [1]: ! wget https://raw.githubusercontent.com/mc-b/devops/master/docker/mysql/Dockerfile -O Dockerfile
! cat Dockerfile
```

```
--2019-05-14 14:02:34-- https://raw.githubusercontent.com/mc-b/devops/master/docker/mysql/Dockerfile (https://raw.githubusercontent.com/mc-b/devops/master/docker/mysql/Dockerfile)
Resolving raw.githubusercontent.com (raw.githubusercontent.com)... 151.101.12.133
Connecting to raw.githubusercontent.com (raw.githubusercontent.com)|151.101.12.133|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 731 [text/plain]
Saving to: 'Dockerfile'
```

```
Dockerfile          100%[=====>]          731  --.-KB/s    in 0s
```

```
2019-05-14 14:02:35 (65.6 MB/s) - 'Dockerfile' saved [731/731]
```

```
#
#     Einfache MySQL Umgebung
#
FROM ubuntu:14.04
MAINTAINER Marcel mc-b Bernet <marcel.bernet@ch-open.ch>

# root Password setzen, damit kein Dialog erscheint und die Installation haengt!
RUN echo 'mysql-server mysql-server/root_password password S3cr3tp4ssw0rd' | debconf-set-selections
RUN echo 'mysql-server mysql-server/root_password_again password S3cr3tp4ssw0rd' | debconf-set-selections

# Installation
RUN apt-get update && apt-get install -y mysql-server

# mysql config - Port fuer alle Hosts oeffnen
RUN sed -i -e"s/^bind-address\s*=\s*127.0.0.1/bind-address = 0.0.0.0/" /etc/mysql/my.cnf

#HEALTHCHECK --interval=5m --timeout=3s CMD curl -f localhost:3306 || exit 1

EXPOSE 3306

VOLUME /var/lib/mysql

CMD ["mysqld"]
```

Um das Anschliessend das Docker Image zu bilden

In [2]: `! docker build -t mysql .`

```
Sending build context to Docker daemon  3.665MB
Step 1/9 : FROM ubuntu:14.04
14.04: Pulling from library/ubuntu

cbe24ed5: Pulling fs layer
217119d4: Pulling fs layer
a23d2c44: Pulling fs layer
Digest: sha256:41291fdea86cfd65df839fec6185a2529cd79725e7612d7c0f22a5a8802a1e03
Status: Downloaded newer image for ubuntu:14.04
---> 65613486b3ef
Step 2/9 : MAINTAINER Marcel mc-b Bernet <marcel.bernet@ch-open.ch>
---> Running in bcf5ba171ab0
Removing intermediate container bcf5ba171ab0
---> 07e82038b87a
Step 3/9 : RUN echo 'mysql-server mysql-server/root_password password S3cr3tp4ssw0rd' | debconf-set-selections
---> Running in 5e2da5574772
Removing intermediate container 5e2da5574772
---> 715b0bf22b36
Step 4/9 : RUN echo 'mysql-server mysql-server/root_password_again password S3cr3tp4ssw0rd' | debconf-set-selecti
```

Das Ergebnis können wir uns mit `docker image ls` anschauen

In [3]: `! docker image ls`

REPOSITORY	TAG	IMAGE ID	CREATED	SIZE
mysql	latest	15533ba2c2ab	1 second ago	337MB
hairyhenderson/figlet	latest	9a14a4f852dc	4 days ago	6.2MB
ubuntu	14.04	65613486b3ef	2 weeks ago	188MB
ubuntu	latest	d131e0fa2585	2 weeks ago	102MB
hello-world	latest	fce289e99eb9	4 months ago	1.84kB

Ebenfalls können die einzelnen Buildschritte sichtbar gemacht werden

In [4]:  ! docker history mysql

IMAGE	CREATED	CREATED BY	SIZE	COMMENT
15533ba2c2ab	2 seconds ago	/bin/sh -c #(nop) CMD ["mysqld"]	0B	
56fe59471dd1	2 seconds ago	/bin/sh -c #(nop) VOLUME [/var/lib/mysql]	0B	
472b9b0ac7a5	2 seconds ago	/bin/sh -c #(nop) EXPOSE 3306	0B	
bd25330bec73	2 seconds ago	/bin/sh -c sed -i -e"s/^bind-address\s*=\s*1...	3.5kB	
926ac4ba4300	3 seconds ago	/bin/sh -c apt-get update && apt-get install...	144MB	
6f47e4b99d86	29 seconds ago	/bin/sh -c echo 'mysql-server mysql-server/r...	2.66MB	
715b0bf22b36	30 seconds ago	/bin/sh -c echo 'mysql-server mysql-server/r...	2.66MB	
07e82038b87a	31 seconds ago	/bin/sh -c #(nop) MAINTAINER Marcel mc-b Be...	0B	
65613486b3ef	2 weeks ago	/bin/sh -c #(nop) CMD ["/bin/bash"]	0B	
<missing>	2 weeks ago	/bin/sh -c mkdir -p /run/systemd && echo 'do...	7B	
<missing>	2 weeks ago	/bin/sh -c rm -rf /var/lib/apt/lists/*	0B	
<missing>	2 weeks ago	/bin/sh -c set -xe && echo '#!/bin/sh' > /...	195kB	
<missing>	2 weeks ago	/bin/sh -c #(nop) ADD file:574946dfc7122f930...	188MB	

In []: 