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Docker Cheat Sheet for Spring Developers

by John Thompson  MVB · Jun. 10, 16 · Cloud Zone · Tutorial

I've been playing with Docker a lot recently to deploy Spring Boot applications. Docker is very cool. I've been learning a lot about it.

This is my unofficial Docker Cheat sheet. Use with caution!

Got any tips and tricks? Comment below, and I'll try to update this.

List All Docker Images

```
1 docker images -a
```

List All Running Docker Containers

```
1 docker ps
```

List All Docker Containers

```
1 docker ps -a
```

Start a Docker Container

```
1 docker start <container name>
```

Stop a Docker Container

```
1 docker stop <container name>
```

View the Logs of a Running Docker Container

```
1 docker logs <container name>
```

Delete All Docker Containers

Use -f option to nuke the running containers too.

```
1 docker rm $(docker ps -a -q)
```

Remove a Docker Image

```
1 docker rmi <image name>
```

Delete All Docker Images

```
1 docker rmi $(docker images -q)
```

SSH Into a Running Docker Container

Okay not technically SSH, but this will give you a bash shell in the container.

```
1 sudo docker exec -it <container name> bash
```

Use Docker Compose to Build Containers

Run from directory of your docker-compose.yml file.

```
1 docker-compose build
```

Use Docker Compose to Start a Group of Containers

Use this command from directory of your docker-compose.yml file.

```
1 docker-compose up -d
```

This will tell Docker to fetch the latest version of the container from the repo, and not use the local cache.

```
1 docker-compose up -d --force-recreate
```

This can be problematic if you're doing CI builds with Jenkins and pushing Docker images to another host, or using for CI testing. I was deploying a Spring Boot Web Application from Jenkins, and found the Docker container was not getting refreshed with the latest Spring Boot artifact.

```
1 #stop docker containers, and rebuild
2 docker-compose stop -t 1
3 docker-compose rm -f
4 docker-compose pull
5 docker-compose build
6 docker-compose up -d
```

Follow the Logs of Running Docker Containers With Docker Compose

```
1 docker-compose logs -f
```

Save a Running Docker Container as an Image

```
1 docker commit <image name> <name for image>
```

Follow the Logs of One Container Running Under Docker Compose

```
1 docker-compose logs pump <name>
```

Dockerfile Hints for Spring Boot Developers

Add Oracle Java to an Image

For CentOS/ RHEL

```
1 ENV JAVA_VERSION 8u31
2 ENV BUILD_VERSION b13
3
4 # Upgrading system
5 RUN yum -y upgrade
6 RUN yum -y install wget
7
8 # Downloading & Config Java 8
9 RUN wget --no-cookies --no-check-certificate --header "Cookie: oraclelicense=accept-securebackup-cookie
10 RUN yum -y install /tmp/jdk-8-linux-x64.rpm
11 RUN alternatives --install /usr/bin/java jar /usr/java/latest/bin/java 200000
12 RUN alternatives --install /usr/bin/javaws javaws /usr/java/latest/bin/javaws 200000
13 RUN alternatives --install /usr/bin/javac javac /usr/java/latest/bin/javac 200000
```

Add/Run a Spring Boot Executable Jar to a Docker Image

```
1 VOLUME /tmp
2 ADD /maven/myapp-0.0.1-SNAPSHOT.jar myapp.jar
3 RUN sh -c 'touch /myapp.jar'
4 ENTRYPOINT ["java","-Djava.security.egd=file:/dev/./urandom","-jar","/myapp.jar"]
```

Related Refcard: [Getting Started With Docker](#)

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