Docker Installation and Docker Commands

In this lesson, we'll look at a quick Docker installation guide.

WE'LL COVER THE FOLLOWING

Starting Off

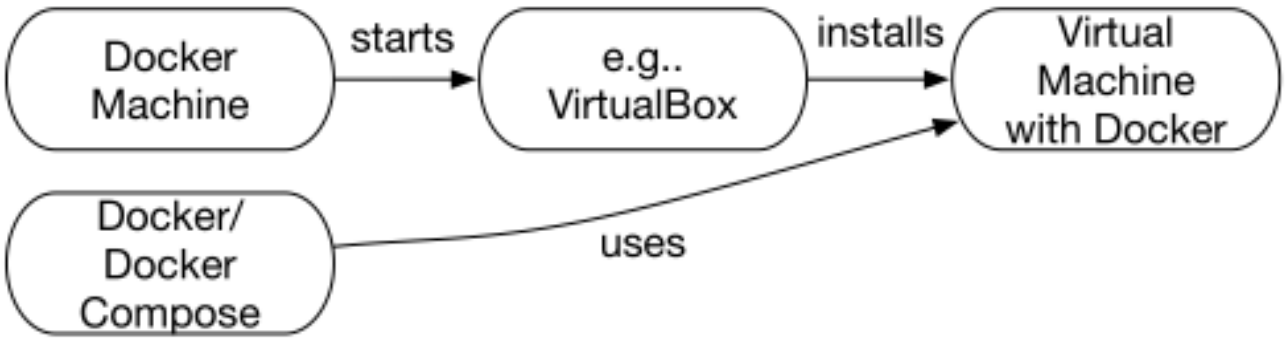
Docker Machine is a tool that can install Docker hosts. From a technical point of view, the installation is quite easy to do. Docker Machine loads an ISO CD image with boot2docker from the Internet.

boot2docker is a Linux distribution and that provides an easy way to run Docker containers. After that, the Docker Machine starts a virtual machine with this boot2docker image.

Particularly convenient with Docker machine is the fact that **using Docker containers on external Docker hosts is just as easy as using local Docker containers**. The Docker command-line tools only need to be configured to use the external Docker host. Afterward, the use of the Docker host is transparent.

Overview

The figure below shows an overview of Docker Machine. Docker Machine installs a virtual machine on which Docker is installed. Docker and other tools, such as Docker Compose then can use this virtual machine as if it were the local computer.



Docker Machine

The command:

```
docker-machine create --driver virtualbox dev
```

creates a Docker host with the name `dev` with the virtualization software Virtualbox. This requires that Virtualbox be installed on the computer.

Afterwards,

```
eval "$(docker-machine env dev)"
```

on **Linux/macOS** configures Docker in such a way that the `docker` command line tools use the Docker host in the virtual Virtualbox machine. If necessary, the shell used must be specified.

```
eval "$(docker-machine env --shell bash dev)"
```

For **Powershell on Windows**, the command is:

```
docker-machine.exe env --shell powershell dev
```

and for **cmd.exe on Windows**, it is:

```
docker-machine.exe env --shell cmd dev
```

`docker-machine rm dev` deletes the Docker host again.

Docker Machine Drivers

Docker Machine Drivers

Virtualbox is only one option. There are many more Docker Machine drivers for cloud providers such as Amazon Web Services (AWS), Microsoft Azure, or Digital Ocean.

In addition, there are drivers for virtualization technologies such as VMware vSphere or Microsoft Hyper-V. Using any of these, Docker Machine can easily install Docker hosts on many different environments.

Advantage: Separate Environments and Docker on Servers

Docker Machine allows one to completely separate Docker systems from each other so that, for example, after a test, nothing remains on the system and all resources are indeed released again. In addition, Docker containers can thus be started very easily on a cloud or virtual infrastructure.

Running the examples in this course directly with Docker is the easiest option and therefore recommended. Docker Machine should be used for the examples only if they are to run on a server or can be completely separated from other Docker installations.