
COMPUTER SUBJECT: VIRTUALISATION

TYPE: INDIVIDUAL WORK EXERCISE

IDENTIFICATION: Installation of Docker/Pele

COPYRIGHT: *Peter Levinsky*

LEVEL: EASY

DURATION: 1-1½ hours

SIZE: NA

OBJECTIVE: Using Docker as virtualisation

REQUIREMENTS: **note of virtualisation**

COMMANDS:



Installation of Docker

The Mission

We shall work with virtualisation on the computer, thus this exercise will describe how to install Docker on Windows,. If you have another OS see at the Appendix on last page. When you have passed this exercise you will have Docker up and running and will be ready for actually try out the virtualisation (see the coming exercises).

For additional background information, you can see / read these sources:

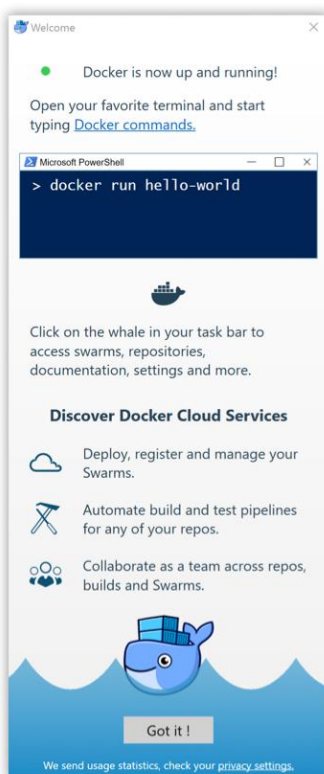
- The Docker homepage <https://www.docker.com/> and the documentation <https://docs.docker.com/>
- Video of The Docker and the installation <https://www.youtube.com/watch?v=Lnbu74R1CIM&index=3&list=PLtWgqZUXAsNhMnuVgkP-nIuuKrRHuVF4Q>
- Installation guide from Docker to Windows <https://docs.docker.com/docker-for-windows/install/>

Assignment 1: Download and install Docker

First download the Docker from <https://download.docker.com/win/stable/InstallDocker.msi>

Then run the msi-file to install Docker.

You will see something like this:

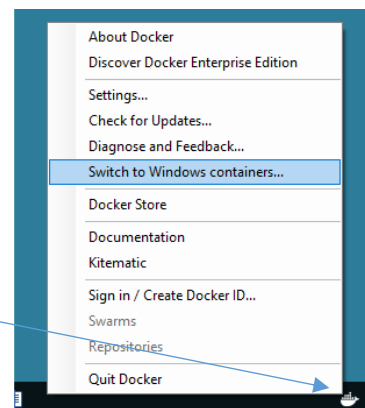


You can then click 'Got it'.

Then you are asked to turn on the Hyper-V, which you can accept. Even this will prevent you to run a VirtualBox if you have this running.

Note! You do not need to be able to run Windows-containers in this course; therefore, you can live without having the Hyper-V enabled.

You can afterwards turn on the windows containers. Then the Hyper-V will be enabled – You then must then reboot your computer



Right click

Assignment 2: Investigate Docker

You should now have Docker running and now it is time to see what Docker is. So first step is to open a terminal window (either a Command Prompt or a Windows PowerShell).

Now you can write several commands – here are some important commands for the moment:

- To get help (a list of possible commands)
docker
docker -help
- To see the version of the Docker
Docker version
- To get a list of setup information for the Docker
Docker info

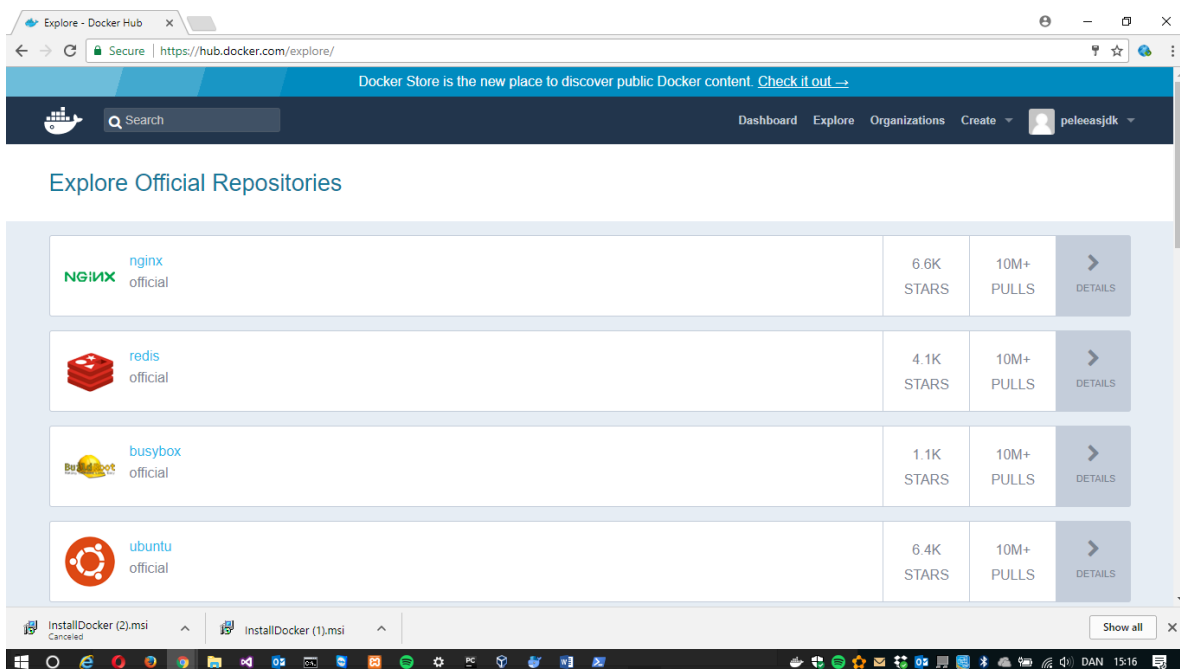
You will among other information be able to see numbers of containers/images, running Docker virtualisations, operating system (either Linux or Windows depending of your switch of containers – see assignment 1)

Assignment 3: Setup access to Dockers registry of containers

Docker is working with Containers or Images. These containers are located in the registry <http://hub.docker.com> . To get access to these you can create an account at hub.docker.com, which by the way will be the same account to docker.com.

To setup an account use: <https://hub.docker.com/>

Try to sign in and explore the registry – you will see a huge amount of possible containers.



Assignment 4: Access different containers

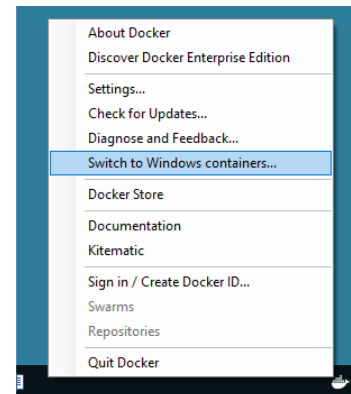
You have two ways to access the registry of containers
(for more information see

https://www.youtube.com/watch?v=NYfKsgDv_yA&t=45s&index=2&list=PLtWgqZUXAsNhMnuVgkP-nIuuKrRHuVF4Q):

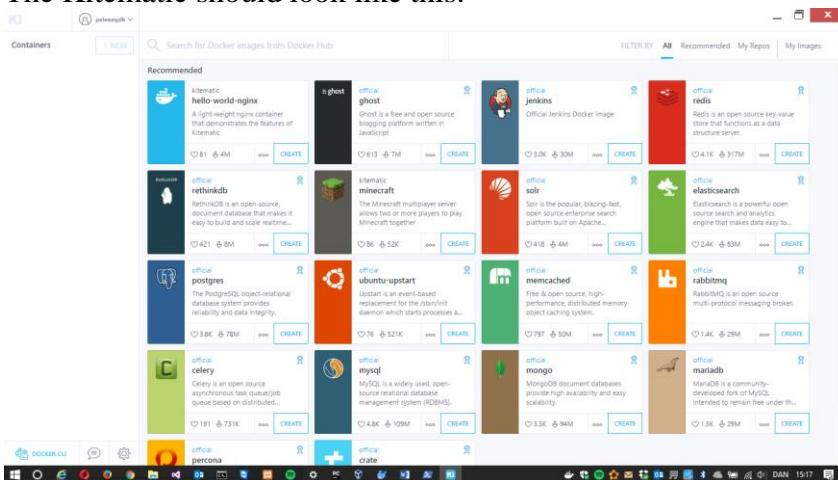
- Manually typing commands, to get an images (container) from <http://hub.docker.com>
`docker pull <<container/images>>`
- Using the Kitematic tool, which follow with the installation of the Docker in Windows. Click on the Docker icon and from the menu then open the tool Kitematic.

If you cannot open the tool, you properly need to copy the Kitematic folder from 'C:\Program Files\Docker Toolbox' to 'C:\Program Files\Docker'. Then try again.

The username and password to Kitematic is the same as you created in assignment 3.



The Kitematic should look like this:



From here you can create (i.e. download an images /container) the application you will like to run in Docker at your computer.

Appendix A

Assignment A: Other host OS than windows

In assignment 1, you are installing the Docker on a Windows computer. If you would like to install on other OS here are some tips. First installed, the other three assignment you should be able to more or less follow.

MAC/OSX:

Help video: https://www.youtube.com/watch?v=h401q_YtAQA

Docker installation guide: <https://docs.docker.com/docker-for-mac/install/>

LINUX/UBUNTU:

Docker installation guide: <https://docs.docker.com/engine/installation/linux/docker-ce/ubuntu/>

General installation Page from Docker

<https://docs.docker.com/engine/installation/>