**What is docker?**

Docker provides containers that run as a sandbox inside basic system. By this concept it is possible to run isolated processes in their own infrastructure without having to virtualize a complete operating system. This simplifies the software distribution enormously. For example you can prepare a completely prepared LAMP environment (Linux Apache-MySQL-PHP) as an image which runs without modifications on other basic system. Docker uses special kernel functionality to isolate individual processes in containers.

Advantages of docker

It is possible to virtualize only individual applications isolated in a container using docker without the overhead of a complete guest system. Applications in docker containers can be easily distributed and run immediately on all systems. The first advantage is to distribute applications easily. It is possible to ensure that the same state of the virtualized application is available on each target system.

**Docker Hub** 🡪 is a repository for docker images and is providing a comprehensive set of applications which can be easily downloaded and used. Repositories can be created and used in docker hub and the image can be managed and distributed.

**Dockerfile ->** Dockerfile is a config file which includes the instructions for creating of an image. That is more effective way to create images and it is easy to integrate into automated processes. Instructions specify the sequence for creating of an image.

**Container 🡪** Containers have their own network and have own IP address. Ports of a container are mapped on ports of host system.

**Use of linking 🡪** is a method for communication between containers and exchanging data safely.

<http://www.gokhansengun.com/docker-nedir-nasil-calisir-nerede-kullanilir/>

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