

DOCKER

Docker is an open source platform for building, deploying, and managing containerized applications.

DOCKER IMAGES

Download an image
`docker pull nginx`

Upload an image to a repository
`docker push myimage:1.0`

Delete an image
`docker rmi nginx`

Show a list of all Images
`docker images`

Delete dangling images
`docker image prune`

Build an image from a Dockerfile
`docker build .`

Tag an image
`docker tag ubuntu ubuntu:18.04`

Save an image
`docker save nginx > nginx.tar`

Load an image from a .tar file
`docker load -i nginx.tar`

RUN CONTAINERS

Start a new Container from an Image
`docker run nginx`

Assign it a name
`docker run --name web nginx`

Map a port
`docker run -p 8080:80 nginx`

Map all ports
`docker run -P nginx`

RUN CONTAINERS (cont)

Start container in background
`docker run -d nginx`

Assign it a hostname
`docker run --hostname srv nginx`

MANAGE CONTAINERS

Show a list of running containers
`docker ps`

Show a list of all containers
`docker ps -a`

Delete a container
`docker rm web`

Delete a running container
`docker rm -f web`

Delete stopped containers
`docker container prune`

Stop a running container
`docker stop web`

Start a stopped container
`docker start web`

Create an image out of container
`docker commit web`

NETWORK

List networks
`docker network ls`

Create a local network
`docker network create mynet`

Show Information on one or more networks
`docker network inspect (network)`

Connect a container to a network

NETWORK (cont)

`docker network connect (network) (container)`

Disconnect a container from a network
`docker network disconnect (network) (container)`

DOCKER COMPOSE

Start your docker-compose defined resources in detached mode
`docker-compose up -d -f <docker-compose.yml>`

Stop all docker-compose resources
`docker-compose stop`

Destroy all docker-compose resources
`docker-compose down`

ORCHESTRATE

Initialize swarm
`Docker swarm init --advertise-addr IP`

Join an existing swarm as manager/worker node
`Docker swarm join --token<manager-token> IP`
`Docker swarm join --token<worker-token> IP`

Create a service
`Docker service create --replicas 3 -p 80:80 --name web nginx`

DOCKER MACHINE

Create a machine
`docker-machine create --driver VirtualBox NAME`

List all the machines
`docker-machine ls`

Connect to a machine
`docker-machine ssh NAME`

VOLUMES

List volumes
`docker volume ls`

Create a volume
`docker volume create <volume>`

Delete a volume
`docker volume rm <volume>`

Mount a local directory to your container
`docker run -v <local_dir>:/<container_dir> <image>`

TROUBLESHOOTING

Show the logs of a container
`docker logs <container>`

Show a 'top' view of processes running on a container
`docker top <container>`

Show any files that have changed since startup
`docker diff <container>`

Connect to an already running container
`docker attach <container>`

Execute a command on a container
`docker exec -it <container_id> /bin/bash`

Show docker disk space used
`docker system df`