# Creating and Using Containers Like a Boss

## Check Our Docker Install and Config

docker version

docker info

docker

docker container run

docker run

## Starting a Nginx Web Server

docker container run --publish 80:80 nginx

docker container run --publish 80:80 --detach nginx

docker container ls

docker container stop 690

docker container ls

docker container ls -a

docker container run --publish 80:80 --detach --name webhost nginx

docker container ls -a

docker container logs webhost

docker container top

docker container top webhost

docker container --help

docker container ls -a

docker container rm 63f 690 ode or

simple loop: docker container rm $(docker ps --filter "status=exited")

status: created, restarting, running, removing, paused, exited, or dead

docker container ls

docker container rm -f 63f

docker container ls -a

## Container VS. VM: It's Just a Process

docker run --name mongo -d mongo

docker ps

docker top mongo

docker stop mongo

docker ps

docker top mongo

docker start mongo

docker ps

docker top mongo

## Assignment Answers: Manage Multiple Containers

docker container run -d -p 3306:3306 --name db -e MYSQL\_RANDOM\_ROOT\_PASSWORD=yes MYSQL\_RANDOM\_ROOT\_PASSWORD

docker container logs db

docker container run -d --name webserver -p 8080:80 httpd

docker ps

docker container run -d --name proxy -p 80:80 nginx

docker ps

docker container ls

docker container stop TAB COMPLETION

docker ps -a

docker container ls -a

docker container rm

docker ps -a

docker image ls

## What's Going On In Containers: CLI Process Monitoring

docker container run -d --name nginx nginx

docker container run -d --name mysql -e MYSQL\_RANDOM\_ROOT\_PASSWORD=true mysql

docker container ls

docker container top mysql

docker container top nginx

docker container inspect mysql

#to view the meta data of containers

docker container stats --help

docker container stats

docker container ls

## Getting a Shell Inside Containers: No Need for SSH

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Usage: docker container run [OPTIONS] IMAGE [COMMAND] [ARG...]

docker container run -help

docker container run -it --name proxy nginx bash

docker container ls

docker container ls -a

docker container run -it --name ubuntu ubuntu

docker container ls

docker container ls -a

docker container start --help

docker container start -ai ubuntu

docker container exec --help

#exec will be the additional process running for existing containers to allow us in.

docker container exec -it mysql bash

docker container ls

docker pull alpine

docker image ls

docker container run -it alpine bash

docker container run -it alpine sh

## Docker Networks: Concepts for Private and Public Comms in Containers

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docker container run -p 80:80 --name webhost -d nginx

docker container port webhost

docker container inspect --format '{{ .NetworkSettings.IPAddress }}' webhost

## Docker Networks: CLI Management of Virtual Networks

docker network ls

docker network inspect bridge

docker network ls

docker network create my\_app\_net

docker network ls

docker network create --help

docker container run -d --name new\_nginx --network my\_app\_net nginx

docker network inspect my\_app\_net

docker network –help

docker network connect

docker container inspect TAB COMPLETION

docker container disconnect TAB COMPLETION

docker container inspect

## Docker Networks: DNS and How Containers Find Each Other

docker container ls

docker network inspect TAB COMPLETION

docker container run -d --name my\_nginx --network my\_app\_net nginx

docker container inspect TAB COMPLETION

docker container exec -it my\_nginx ping new\_nginx

docker container exec -it new\_nginx ping my\_nginx

docker network ls

docker container create --help

## Assignment Answers: Using Containers for CLI Testing

docker container run --rm -it centos:7 bash

docker ps -a

docker container run --rm -it ubuntu:14.04 bash

docker ps -a

## Assignment Answers: DNS Round Robin Testing

docker network create dude

docker container run -d --net dude --net-alias search elasticsearch:2

docker container ls

docker container run --rm -- net dude alpine nslookup search

docker container run --rm --net dude centos curl -s search:9200

docker container ls

docker container rm -f TAB COMPLETION