
# Docker Certified Associate (DCA)

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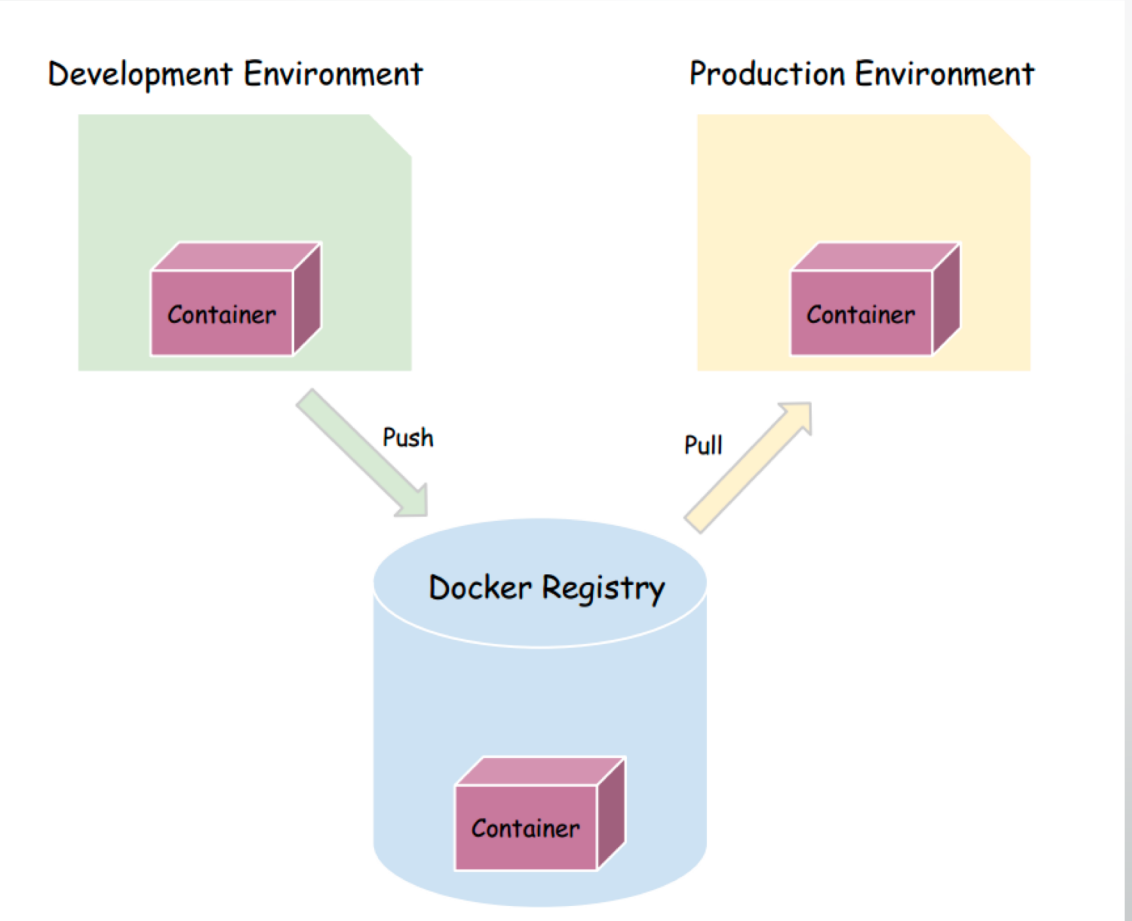
# Session 4

- Docker Hub Registry
- Docker Local Registry
- Docker Swarm

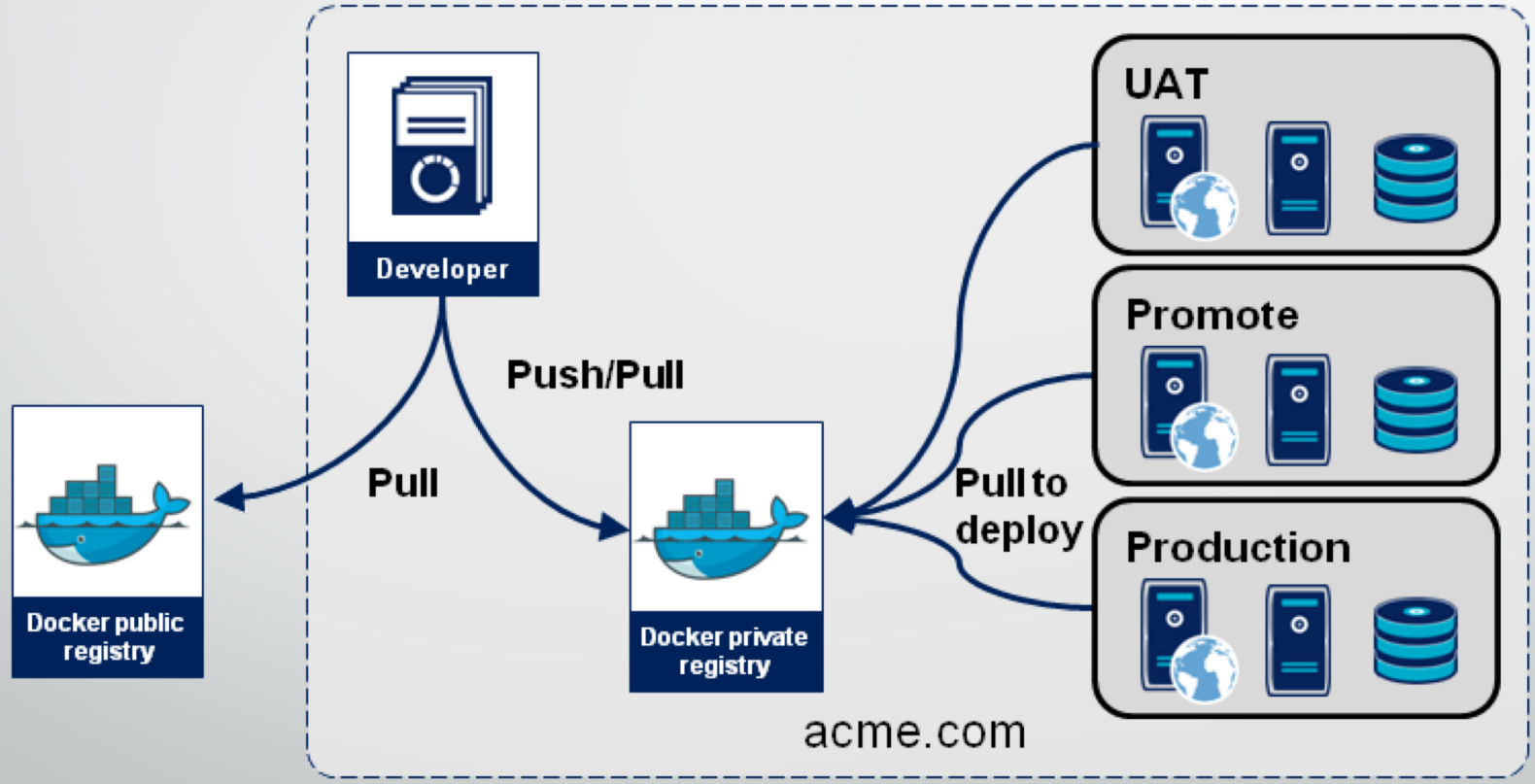
# Docker HUB

- docker tag centos htayanloo/dca_course:tagname
- docker push htayanloo/dca_course:tagname

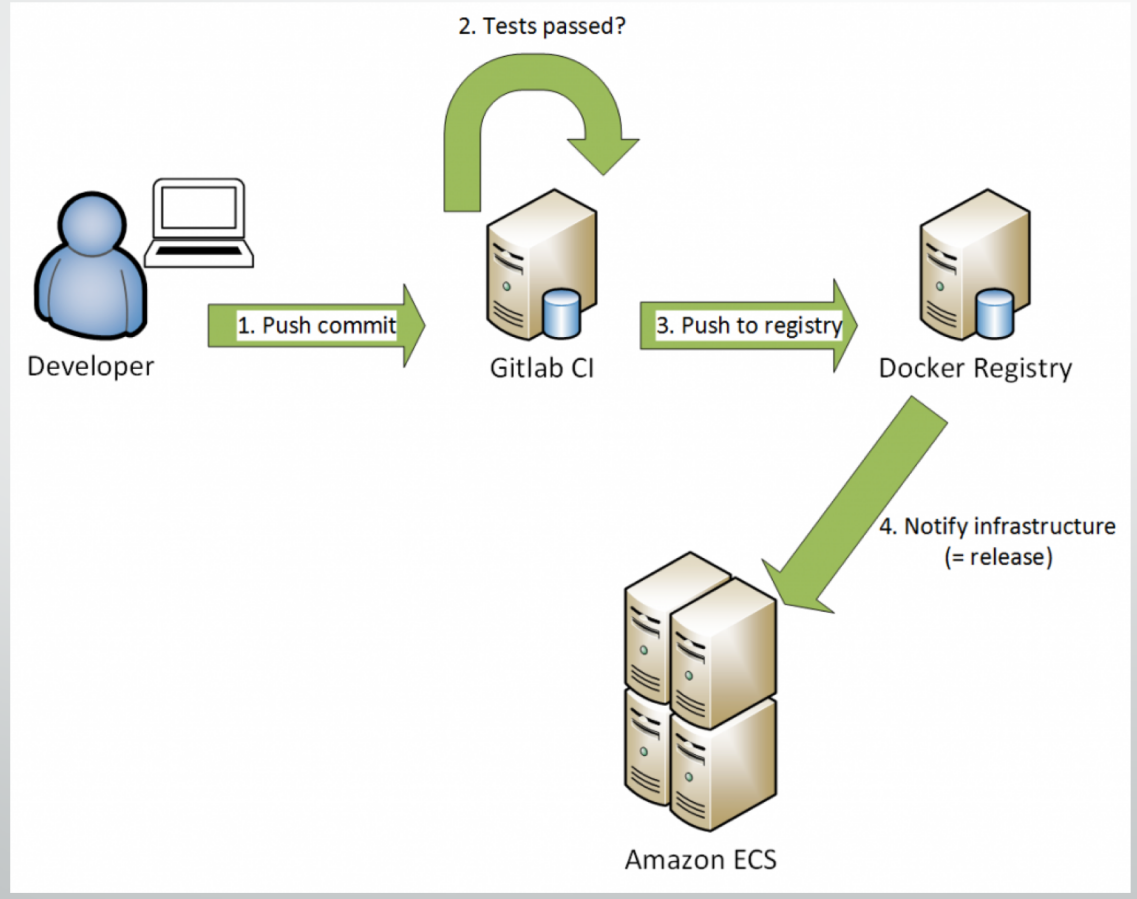
# Dokcer Local Registry



# Dokcer Local Registry- Production mode



# Example : CI in production



# Docker Local Registry

- # Step-1: Run a local registry
  - $ docker run -d -p 5000:5000 --restart=always --name registry registry:2

# Docker Local Registry

- # Step-2: Copy an image from Docker Hub to your registry

  - $ docker pull ubuntu:16.04

# Docker Local Registry

- # Step-3: Tag and push Image to registry:
  - $ docker tag ubuntu:16.04 localhost:5000/my-ubuntu
  - $ docker push localhost:5000/my-ubuntu

# Docker Local Registry

- # Step-4: Remove local and pull from local registry and  remove from local registry
  - $ docker image remove ubuntu:16.04
  - $ docker pull localhost:5000/my-ubuntu
  - $ docker image remove localhost:5000/my-ubuntu

# Docker Local Registry

- # Step-5:  Note of Registry Run  (Always restart)
  - docker run -d \
  - -p 5000:5000 \
  - --restart=always \
  - --name registry \
  - registry:2

# Docker Local Registry

- # Step-6: Note Customize the published port
  - $ docker run -d \
  - -p 5001:5000 \
  - --name registry-test \
  - registry:2

# Docker Local Registry

- # Step-7: Note change the port the registry listens !!!!
  - $ docker run -d \
  - -e REGISTRY_HTTP_ADDR=0.0.0.0:5001 \
  - -p 5001:5001 \
  - --name registry-test \
  - registry:2

# Docker Local Registry

- # Step-8: Customize the storage location

  - $ docker run -d \
  - -p 5000:5000 \
  - --restart=always \
  - --name registry \
  - -v /mnt/registry:/var/lib/registry \
  - registry:2

# Docker Local Registry

- 1- docker rm -f $(docker ps -qa)
- 2- docker run -d -p 5000:5000 --name registry-srv registry:2
- 3- docker run -it -p 8080:8080 --name registry-web --link registry-srv -e REGISTRY_URL=http://registry-srv:5000/v2 -e REGISTRY_NAME=localhost:5000 hyper/docker- registry-web
- 4- Web UI will be available on http://localhost:8080 OR http://IP/8080

# Docker Volume NFS

- $ docker volume create --driver local \
  --opt type=nfs \
  --opt o=addr=192.168.1.115,uid=1000,gid=1000,rw \
  --opt device=:/mnt/volumes/mysql-test \
  mysql-test-1

  docker run -it -v vol_boo:/data rbekker87/armhf-alpine:3.5 sh

# Docker Volume Limit

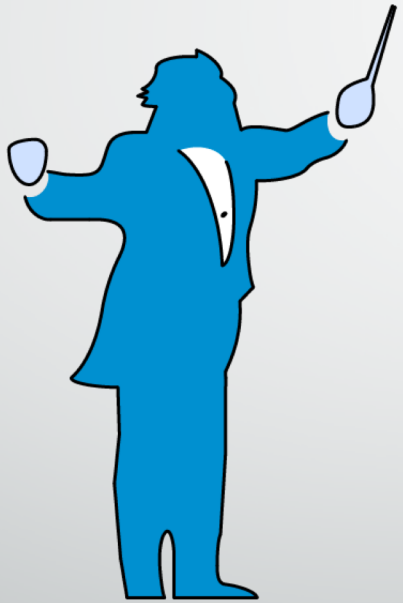
- docker run -it --rm --device-write-bps /dev/sda:50mb ubuntu /bin/bash
- time dd if=/dev/zero of=test.out bs=1M count=1024 oflag=direct

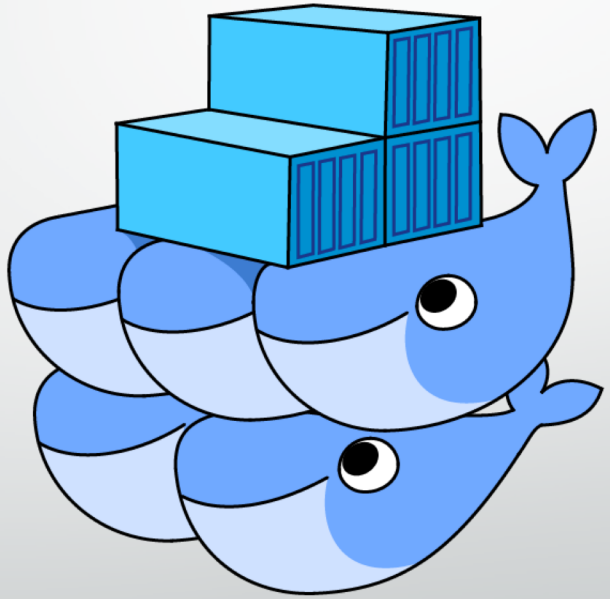
- VS

- docker run -it ubuntu bash
- time dd if=/dev/zero of=test.out bs=1M count=1024 oflag=direct

# Docker Swarm

swarm





orchestration

# Docker Swarm

# Docker Swarm add node as worker

- Docker swarm init
- Docker swarm join-token worker

# Docker Swarm remove node

- Docker node rm node-name
- Docker swarm leave

# Docker Swarm add node as manager

- Docker swarm join-token manager

# Docker Swarm convert worker to manager

- Docker node promote docker-node-name

- Note: run command on manager node