



Docker Certified Associate (DCA)

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Session 3

- Describe Dockerfile options [add, copy, volumes, expose, entrypoint, etc)+ **Lab**
- Show the main parts of a Dockerfile+ **Lab**
- Give examples on how to create an efficient image via a Dockerfile+ **Lab**
- Use CLI commands such as list, delete, prune, rmi, etc to manage images+ **Lab**
- Inspect images and report specific attributes using filter and format+ **Lab**
- Demonstrate tagging an image+ **Lab**
- Apply a file to create a Docker image+ **Lab**
- Describe how image layers work+ **Lab**
- Modify an image to a single layer+ **Lab**

Docker Command

Pause and Unpause Container :

Run : docker run -it centos /bin/bash

Run : docker pause Container_id

Run : docker exec -it 1f198d3oadd8 /bin/bash

Run : docker unpause 7cd503fdfd16

Docker Command

- Kill Container

Run : docker run -it centos:latest

Run : docker kill Container_id

Docker Command

Commit and use Image

Run :`docker run -it centos:latest`

RUN: `create file in container /root`

Run : `docker commit container_id centos:myversion`

Run `docker run -it centos:myversion`

Docker Command

- Commit and Save image
- **Run** : docker save -o centos_file.tar.gz **image_id**
- **OR**
- **RUN**: docker save -o centos_file.tar.gz **ImageName:TAG**

Docker Command

- Load Export Image:
 - **Run :** docker load -i centos_file.tar.gz
 - **OR**
 - **Run :** docker load < centos_file.tar.gz
- **Docker ps:**
 - docker tag image_id centos:myversion

Docker Command

Senario:

Run Mariadb container and connect to it

Run docker run -it mariadb

Run docker run -d -e MYSQL_ROOT_PASSWORD=123 -it mariadb:latest

Docker Command

Lab :

- 1- base centos 7
- 2- install httpd
- 3- commit with name : centhttpd:v1
- 4- run centhttpd:v1 container
- 5- start httpd
- 6- pause and unpause new container
- 7- test it...

Docker Command

- Docker Commit with change

Support Item :

CMD|ENTRYPOINT|ENV|EXPOSE|LABEL|ONBUILD|USER|VOLUME|WORKDIR

- **Run :** docker commit --change='CMD ["/bin/sh"]' -c "EXPOSE 80" container_id myimage:v4

Docker Command

- Note : The Other Diffrenet Docker exec with Docker attach

Docker Command

- Note : Docker Container Rename :
- **Run** : docker rename Current_name New_name

Switch:

Docker Command

- Docker Image rollback layer
- **Run** : docker history imagename
- **Run** : docker tag **ImageID** test/b

Docker Command

- Export /Import VS Save/Load
- **Run** : docker export container_id > mycent.tar
- OR
- **Run** docker export --output="mycent1.tar" fffad5a175cc
- **Run** : docker import mycent.tar
- -----
- **Run** : docker save image_id > myimage.tar
- **Run** Docker load < myimage.tar.gz

Docker File

- Below are some dockerfile commands you must know:
- **FROM**
- The base image for building a new image. This command must be on top of the dockerfile.
- **MAINTAINER**
- Optional, it contains the name of the maintainer of the image.
- **RUN**
- **ADD**
- **ENV**
- **CMD**
- **ENTRYPOINT**
- Define the default command that will be executed when the container is running.
- **WORKDIR**
- This is directive for CMD command to be executed.
- **USER**
- Set the user or UID for the container created with the image.
- **VOLUME**
- Enable access/linked directory between the container and the host machine.