**Docker Installation**

sudo apt update -y (updates the packages indexes in the OS which are available in the remote package repo)

sudo apt install docker.io -y

sudo systemctl start docker

sudo systemctl enable docker

sudo systemctl status docker

sudo docker info

**To pull the docker image**

docker pull image\_name

**To search for image in docker hub**

docker search image\_name

**To list the images available in docker host**

docker image ls

**To deploy container with container image in interactive mode**

docker run -it --name=container\_name image\_name command\_to\_execute\_when\_container\_will\_be\_deployed

docker run -it --name=mycontainer ubuntu bash

**To logout from container**

Ctrl +P and Ctrl + Q

**To list running containers**

docker ps

**To list running and stopped containers**

docker ps -a

**To get the container size**

docker ps -s

**To stop a running container**

docker stop container\_name/container\_id

**To start a stopped container**

docker start container\_name/container\_id

**To get usage of all running container**

docker stats

**To get usage of a specific container**

docker stats container\_name/container\_id

**To login to a running container**

docker exec -it container\_name/container\_id bash

**To remove a container from host**

docker stop container\_name

docker rm container\_name

**To forcefully remove a running container from host**

docker rm -f container\_name

**To remove image from the host**

docker rmi image\_name

**To forcefully remove a image which is in use by a running container (Note: This will not impact the running container)**

docker rmi -f image\_name

**To map container port with host port to expose application over host network**

docker run -it --name=webcontainer -p 80:80 image\_name bash

**Lab**

docker run -it --name=webcontainer -p 80:80 ubuntu bash

apt update -y

apt install apache2 git -y

cd /var/www/html

git clone <https://github.com/devopstraining99/demo-app>

cd /etc/init.d/

./apache2 start

apt list --installed | grep apache2

sudo docker run -it --name=webcontainer002 -p 80:80 centos:7 bash

yum install httpd git -y

cd /var/www/html

git clone <https://github.com/devopstraining99/demo-app>

httpd

ps -aux

rpm -qa httpd (to verify if httpd package is installed or not)

Open port 80 in the security group

http://instance\_public\_ip/demo-app/

**To create a container image with a container**

docker commit container\_name image\_name

**To push image to Image Registry (Dockerhub)**

1. **Create Account on Docker hub** - <https://hub.docker.com/>
2. Rename the image created using the docker commit command with your dockerhub username and reponame
3. docker tag image\_name dockerhub\_username/repo\_name
4. docker login (pass your username and password of dockerhub account)
5. docker push dockerhub\_username/repo\_name

**Creating Image with Dockerfile**

touch Dockerfile

nano Dockerfile

FROM centos:7

RUN yum install httpd git -y

RUN cd /var/www/html && git clone https://github.com/devopstraining99/demo-app

docker build -t image\_name .