Docker Lab 01

1. Install the latest version of Docker CE and containerd on your machine.

sudo apt install docker.io

1. Check installed docker client and engine versions.

Sudo docker -v

1. Verify that Docker CE is installed correctly by running the hello-world image.

sudo docker run hello-world

1. Create the docker group.

sudo groupadd docker

1. Add your user to docker group and then execute this command "newgrp docker"

sudo usermod -aG docker amrawey

1. Verify that you can run docker commands without sudo.

docker run hello-world

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result:  
Hello from Docker!

1. Configure Docker to start on boot.

sudo systemctl enable docker

1. Run docker info to view even more details about your Docker installation.

docker info

1. List docker images on your machine and check the output.

docker images

1. List all docker containers on your machine (running and exited containers).

docker ps

1. Remove those exited containers.

docker container prune  
docker container rm [container\_name]

1. Remove the hello-world image.

docker image rm hello-world

1. Create and change to a new directory "mydockerbuild" and create a Dockerfile file that installs build-essential, curl, and make on to a Ubuntu image.
2. Build a Docker Image from the Dockerfile with tag “Build-Essential:Dockerfile”

docker build . -t "build-essential:Dockerfile"

1. Build a Docker Image from the Dockerfile with tag "pythonapp:v0"

docker build . -t pythonapp:v0

1. Run this app , mapping your machine’s port 4000 to the container’s published port 80.

docker container run -p 4000:80 pythonapp:v0

1. Sign up to dockerhub https://hub.docker.com/ and create a repository.

docker login

1. Tag your pythonapp:v0 image and push it to your repository.

docker tag f3a65319e7f9 manar/pythonapp:v0

docker push manar/pythonapp:v0