Docker : Docker is an advanced virtualization software platform that makes it easier to create, deploy and run the application in Docker container.

VMWare software

Virtualization Vs Containerization

Virtualization is an abstract version of OS. Containerization is an abstraction version of an application.

docker info

docker --version

docker images This command is use to find all images present in local machine.

docker hub : docker hub is like remote repository which help to pull and push user defined as well as pre defined images.

Please create Docker hub account.

docker pull hello-world

Dockerfile : it is a file system which contains all configuration details which help to create the images.

Docker images : docker images is responsible to run the container.

Dockerfile

FROM busybox:latest

CMD ["echo","Welcome to Simple Docker Example"]

docker build -t my-busy-box . -f Dockerfile

docker run my-busy-box

first create the spring boot project

then create one or more than one image

then create the jar file using command as mvn package.

Then create Dockerfile

**FROM** openjdk:11

**COPY** ./target/spring-boot-with-docker-0.0.1-SNAPSHOT.jar .

**CMD** ["java","-jar","spring-boot-with-docker-0.0.1-SNAPSHOT.jar"]

docker build -t my-java . -f Dockerfile

docker run -d -p 8181:8080 my-java This command is use to run the container which is responsible to run the web application.

Creating docker images to run the angular project

First we need to create the project and develop the application and then build the project using command as

ng build

my-java : container 🡪 it is use to run the spring boot project in docker engine with (vos)

We need to use mysql pre defined image to create the tables.

mysql

my-angular :container 🡪 it is use to run the angular project with nginx server in docker engine with (vos)

docker-compose.yml

inside this file we provide all container configuration details which help to run the more than one container with help of docker-compose command.

Angular project running on nginx server with port number 80 in virtual os provided by Docker

Spring boot project running on tomcat server with port number 9090 in virtual os provided by Docker

MySQL is another open source image which help to run the database in Docker container.