Docker Workshop for Complete Beginners

05 December 2021 08:38

Docker Commands

docker -v : To check docker version

docker info : To get info about docker

docker login : To login into docker hub account

docker images : To check all docker images

docker pull <image-id> : To pull docker image from docker hub

docker run <image-id> : To run docker image

docker rmi <image-id> : To remove docker image

docker ps : To check docker containers running

Running hello-world docker image

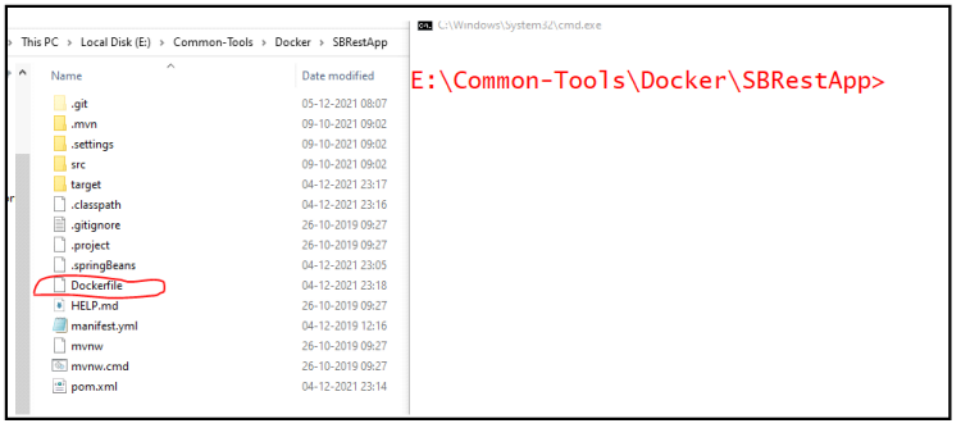
> docker run hello-world

Note: When we run an image docker will search for that image in local, if it not available in local then it will download from docker hub and it will run that image.

Running Spring Boot Application Using Docker

-> Clone Spring Boot application from Git repo
https://github.com/Ashok-IT-School/spring-boot-docker-app.git

-> Open command prompt and navigate to spring-boot application till dockerfile location



-> Build Docker image with dockerfile

Syntax : docker build -t <image-name> . : To build docker image using Dockerfile

Ex : docker build -t spring-boot-rest-api .

Note : After building check all images using docker images command

-> Run docker image

Syntax : docker run -p OS-HOST-PORT:APP-SERVER-PORT <image-name> : To run docker image

Ex : docker run -p 9090:9090 spring-boot-rest-api

Note: We can run docker image in detached mode also

Syntax: docker run -d -p OS-HOST-PORT:APP-SERVER-PORT <image-name> : To run docker image in background (detached mode)

Ex : docker run -d -p 5000:5555 spring-boot-rest-api

-> Tag docker image

Syntax: docker tag image-name username/repository:tag : To tag an image

Ex : docker tag spring-boot-rest-api ashokit/spring-boot-rest-api:latest

-> Push docker image to docker hub

Syntax : docker push username/image

Ex: docker push ashokit/spring-boot-rest-api

Docker file for Spring Boot Application

```
FROM java:8-jdk-alpine

COPY ./target/spring-boot-docker-app.jar /usr/app/

WORKDIR /usr/app

RUN sh -c 'touch spring-boot-docker-app.jar'

ENTRYPOINT ["java","-jar","spring-boot-docker-app.jar"]
```

Docker file for Python Flask Application

```
FROM python:3.6

MAINTAINER Ashok Bollepalli "ashokitschool@gmail.com"

COPY . /app

WORKDIR /app

RUN pip install -r requirements.txt

ENTRYPOINT ["python"]

CMD ["app.py"]
```