Create a Docker Image for your Spring Boot Application and RUN it on Docker Container

Part 1 – Create a Docker Image

1. Go to the Jenkins job folder

In this case, it is **boot-001** which is a Jenkins job.

 # cd /Users/nanda/.jenkins/workspace/boot-001

 # dir

You will observe that there is a Dockerfile

2. Use docker build command to create a Docker image

 # docker build -t boot-app-05nov-01:1.0 .

```
/Users/nanda/.jenkins/workspace/boot-001
Nandakumars-MacBook-Pro:boot-001 nanda$ ls
Dockerfile      Jenkinsfile     README.md       pom.xml         src             target
Nandakumars-MacBook-Pro:boot-001 nanda$ docker build -t boot-app-05nov-01:1.0 .
Sending build context to Docker daemon  16.55MB
Step 1/4 : FROM openjdk:8-jdk-alpine
8-jdk-alpine: Pulling from library/openjdk
e7c96db7181b: Downloading [==================================>                ]  1.883MB/2.757MB
f910a506b6cb: Download complete
c2274a1a0e27: Downloading [>                                                  ]  531.1kB/70.73MB
```

3. It would create an image for your Spring Boot application

docker images

```
Successfully built ed031beab71c
Successfully tagged boot-app-05nov-01:1.0
Nandakumars-MacBook-Pro:boot-001 nanda$ docker images
REPOSITORY          TAG                 IMAGE ID            CREATED             SIZE
boot-app-05nov-01   1.0                 ed031beab71c        About a minute ago   121MB
openjdk             8-jdk-alpine        a3562aa0b991        5 months ago         105MB
Nandakumars-MacBook-Pro:boot-001 nanda$
```

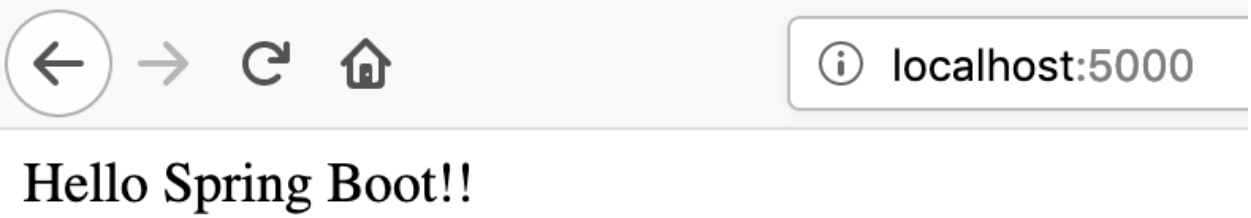
Part 2 – Start a Docker Container out of your Docker Image

4. Use docker run command to start a container

 # docker run –it –d boot-app-05nov-01:1.0

```
Nandakumars-MacBook-Pro:boot-001 nanda$ docker run -it -d boot-app-05nov-01:1.0
e52418cf50177c310575ef8be8ab09bf975e3337fa5a0a667ed14f2cc53c40a4
Nandakumars-MacBook-Pro:boot-001 nanda$ docker ps
CONTAINER ID        IMAGE                   COMMAND               CREATED             STATUS              PORTS
    NAMES
e52418cf5017        boot-app-05nov-01:1.0   "java -jar app.jar"   10 seconds ago      Up 4 seconds        8080/tcp
    keen_faraday
```

5. Visit ***http://localhost:5000/***



6. You can do a port number mapping to start on a different port number

 # docker run –it –p 4000:5000 –d boot–app–05nov–01:1.0

```
Nandakumars–MacBook–Pro:boot–001 nanda$ docker run –it –p 4000:5000 –d boot–app–05nov–01:1.0
fa76d0fb68e583bc8a6cd89807728b265b170c9ef3854e27466e4c256811d9a6
Nandakumars–MacBook–Pro:boot–001 nanda$ docker ps
CONTAINER ID        IMAGE                   COMMAND               CREATED             STATUS              PORTS
NAMES
fa76d0fb68e5        boot–app–05nov–01:1.0   "java –jar app.jar"   5 seconds ago       Up 3 seconds        8080/tcp, 0.0.0.0:4000->5000/tcp
crazy_snyder
e52418cf5017        boot–app–05nov–01:1.0   "java –jar app.jar"   4 minutes ago       Up 4 minutes        8080/tcp
keen_faraday
```

7. Visit ***http://localhost:4000/***