DEPLOY THE JAR IN THE CONTAINER WITH THE HELP OF DOCKERFILE AND HIT THE ENDPOINT

PREREQUISITES - Create the EC2 instance with T2.MICRO and UBUNTU

Maven - https://github.com/praveen1994dec/tools_installation_scripts/blob/main/Maven.sh=

Docker - https://github.com/praveen1994dec/tools_installation_scripts/blob/main/docker.sh

Step 1 - Go to https://github.com/praveen1994dec/Java_app_3.0.git

Step 2 - Clone the code in EC2 in OPT folder

cd /opt/
git clone https://github.com/praveen1994dec/Java_app_3.0.git

```
root@ip-172-31-30-199:/opt# ls -lrta
total 16
drwxr-xr-x 19 root root 4096 Feb  3 05:12 ..
drwx--x--x  4 root root 4096 Feb  3 05:18 containerd
drwxr-xr-x  4 root root 4096 Feb  3 05:18 .
drwxr-xr-x  6 root root 4096 Feb  3 06:38 Java_app_3.0
```

Step 2.1 - Go to the folder Java_app_3.0 and execute the below command

maven clean install -DskipTests

[Check inside the Target folder for the jar]

Step 3 - Go over the Dockerfile

cd Java_app_3.0/Dockerfile

```
WORKDIR /app
RUN chmod -R 777 /app
COPY ./target/*.jar /app.jar
CMD ["java", "-jar", "/app.jar"]
~
~
```

www.heydevops.in

Step 4 - Build the Docker Image

docker image build -t praveensingam1994/heydevops:latest .

```
root@ip-172-31-30-199:/opt/Java_app_3.0# docker images
REPOSITORY                       TAG       IMAGE ID       CREATED           SIZE
praveensingam1994/heydevops2     latest    f3f5f626d907   47 minutes ago    144MB
praveensingam1994/heydevops3     latest    23281409a0f9   47 minutes ago    144MB
praveensingam1994/heydevops1     latest    3f81ec2a1a59   About an hour ago 184MB
praveensingam1994/heydevops      latest    1422ec2275c8   About an hour ago 144MB
```

praveensingam1994 - Represents the docker repo username
Heydevops - Image name
Latest - tag
. - current folder

Step 5 - Create the container

docker run -d -p 8080:8080 praveensingam1994/heydevops:latest

```
e431acb4135554e2a104c295170a06517ed06327c1ba9fee9a8cc22b2c): Bind for 0.0.0.0:8080 failed: port is already allo
root@ip-172-31-30-199:/opt/Java_app_3.0# docker run -d -p 8081:8081 praveensingam1994/heydevops:latest
1d189bea0ccea27b364aeb25d02d790026738caf64e2e7cf6f445bc84d3f09bf
root@ip-172-31-30-199:/opt/Java_app_3.0#
```

Step 6 - Check all the running and non running list of containers

docker ps -a

```
root@ip-172-31-30-199:/opt/Java_app_3.0# docker ps -a
CONTAINER ID   IMAGE                                COMMAND              CREATED           STATUS
   PORTS                               NAMES
1d189bea0cce   praveensingam1994/heydevops:latest   "java -jar app.jar"  47 seconds ago    Exited (1) 46 s
                                       jovial_kilby
df44250d0d53   praveensingam1994/heydevops:latest   "java -jar app.jar"  About a minute ago Created
                                       pensive_sutherland
6ebf9b521696   praveensingam1994/heydevops3:latest  "java -jar /app.jar" About a minute ago Created
                                       admiring_leakey
4ca58667deec   praveensingam1994/heydevops3:latest  "java -jar /app.jar" 31 minutes ago    Up 31 minutes
   0.0.0.0:8080->8080/tcp, :::8080->8080/tcp   frosty_mclean
7fc5a11ee4a1   praveensingam1994/heydevops2:latest  "java -jar app.jar"  50 minutes ago    Exited (1) 50 m
                                       flamboyant_chandrasekhar
8ea0814ef5d5   praveensingam1994/heydevops1:latest  "java -jar app.jar"  55 minutes ago    Exited (1) 55 m
                                       bold_keller
1c7da1639e71   praveensingam1994/heydevops:latest   "java -jar app.jar"  56 minutes ago    Exited (1) 56 m
                                       wizardly_sanderson
```

Step 7 - Check the logs of container

docker logs <Container ID>

```
root@ip-172-31-30-199:/opt/Java_app_3.0# docker logs 4ca58667deec
2024-02-03 06:27:57.238  INFO 1 --- [           main] trationDelegate$BeanPostProcessorChecker : Bean 'd
.cloud.autoconfigure.ConfigurationPropertiesRebinderAutoConfiguration' of type [org.springframework.clou
nfigurationPropertiesRebinderAutoConfiguration] is not eligible for getting processed by all BeanPostPro
le: not eligible for auto-proxying)
2024-02-03 06:27:57.346  WARN 1 --- [           main] io.fabric8.kubernetes.client.Config      : Error
ount token from: [/var/run/secrets/kubernetes.io/serviceaccount/token]. Ignoring.
2024-02-03 06:27:57.349  WARN 1 --- [           main] io.fabric8.kubernetes.client.Config      : Error
ount token from: [/var/run/secrets/kubernetes.io/serviceaccount/token]. Ignoring.
2024-02-03 06:27:57.353  WARN 1 --- [           main] o.s.c.k.KubernetesAutoConfiguration      : No name
ected. Please specify KUBERNETES_NAMESPACE env var, or use a later kubernetes version (1.3 or later)

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  '  |____| .__|_| |_|_| |_\__, | / / / /
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 :: Spring Boot ::        (v2.2.1.RELEASE)

2024-02-03 06:27:58.266  WARN 1 --- [           main] o.s.c.k.config.ConfigMapPropertySource   : Can't
 name: [minikube-sample] in namespace:[default]. Ignoring.
```

Step 8 - Go inside the container and check for JAR file

docker exec -it <Container ID> /bin/sh
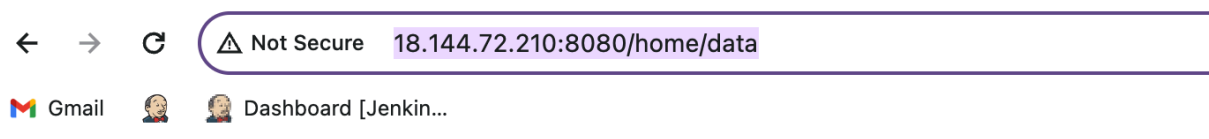
```
root@ip-172-31-30-199:/opt/Java_app_3.0# docker exec -it 4ca58667deec /bin/sh
/app # cd /
/ # ls
app       bin       etc       lib       mnt       proc      run       srv       tmp       var
app.jar   dev       home      media     opt       root      sbin      sys       usr
/ #
```

Step 9 - Open the Security Groups to All traffic in EC2 instance and hit the below URL

http://<EC2 PUBLIC IP>:8080/home/data

```
←  →  C      ⚠ Not Secure   18.144.72.210:8080/home/data

M Gmail    🧑   🧑 Dashboard [Jenkin...
```

["name":null,"id":1,"place":"Hyderabad","value":null}

Step 10 - Terminate the instance