Docker 2 notes:
Base Image name:

FROM

It is used to specify base image for our application

FROM tomcat:9.0
FROM openJDK:17
FROM node:19.4
FROM mysql:8.5
FROM python:3.3

MAINTAINER

Maintainer decides the author of the Dockerfile
It is used to specify the author of the Dockerfile

MAINTAINER Abc <abc@sldk.com>

First specify base image, followed by maintainer/author, run

RUN

At the time of Docker image creation, which instructions you want to execute
Run keyword is used to specify instructions to execute at the time of Docker image creation

Example: RUN 'git clone<url>;'
RUN 'mvn clean package'
If required, we can write multiple RUN instructions in a single Dockerfile and all those instructions will be processed in order

CMD

When does a Docker container get created?
When we try to execute the Docker image that time Docker container is created
CMD keyword is used to specify intructions to execute at the time of Docker container creation

At the time of image creation, we can write multiple RUN commands

CMD 'java -jar app.jar'
CMD 'app.py'

One Dockerfile can have multiple CMD instructions, however, Docker will process only last CMD instruction
RUN instructions will be executed at the time of Image creation, CMD instructions will be executed at the time of container creation

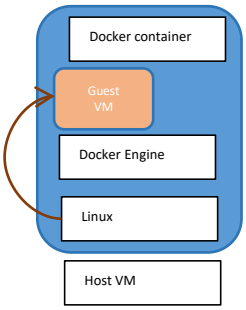
ENTRYPOINT

Keyword is used to specify instruction to execute at the time of docker container creation.
ENTRYPOINT is similar to CMD
ENTRYPOINT["java", "-jar", "app.jar"]
ENTRYPOINT["python", "app.py"]

Note: CMD instructions we can override using command-line arguments however ENTRYPOINT instructions cannot be overridden

COPY

COPY any files from host machines to container machines



COPY target/app.war /usr/app/tomcat/webapps/app.war
File must be available in host machine only then we can copy from host machine to guest VM

ADD

It is used to copy files from source to destination
ADD target/app.war /usr/app/tomcat/webapps/app.war

ADD <http-url> /usr/app/app.war

WORKDIR

Used to set working directory

COPY target/app.jar /usr/app/app.jar

WORKDIR /usr/app
It will go into /usr/app directory and execute further commands

CMD 'java -jar app.jar'

EXPOSE

It is used to specify on which port# our application will run in our container
EXPOSE 8080 --> it is not to change port number it is only to provide information about port number to other team members

USER

Used to set USER to run commands

Prune
[ec2-user@ip-172-31-19-227 ~]$ docker system prune -a

```
[ec2-user@ip-172-31-19-227 ~]$ docker system prune -a
WARNING! This will remove:
  - all stopped containers
  - all networks not used by at least one container
  - all images without at least one container associated to them
  - all build cache

Are you sure you want to continue? [y/N] y
Deleted Containers:
fd69aec5cf6cdd13f00e1c6fca15874f5c3067fe6f90d5b1de9a05d150053a5a
1f62a9e6d8f5d6764eb231ff2d0409bd1ba4e3d2966f46622ee7c2d27fb273bc

Deleted Images:
untagged: hacker123shiva/springbt-in-docker:latest
untagged: hacker123shiva/springbt-in-docker@sha256:1535b83e22cc9dafe5a031570682e4a818f473d4571d617699d6777a6dfccf40
deleted: sha256:3f98d4db208751543621a3f48c585e18af43a9b56925a067b699a399f9397d71
deleted: sha256:3691d53fb63df4c76f8eae6a167409108ee25a7bb7a09637a5da17f5cf8697c4
deleted: sha256:1d81800fced2d33795c0be89dfa29cb8e20f139c7631cf6f9d5c1f3aa6b1c293
deleted: sha256:8c17fbaf5deb44789fbec8664ece55af2bde3d75ea3a6d34731d12a00229008b
deleted: sha256:f08cf23d2882f5417dc74b6df5c384466d0024dc5d138674a5f42cae72d40f65
deleted: sha256:c8dd97366670ed499701572c321fb87ef4f9287308536563a8f1e3fd39ff2166

Total reclaimed space: 492.7MB
[ec2-user@ip-172-31-19-227 ~]$
```

[ec2-user@ip-172-31-19-227 ~]$ vi Dockerfile
[ec2-user@ip-172-31-19-227 ~]$
[ec2-user@ip-172-31-19-227 ~]$ cat Dockerfile
FROM ubuntu

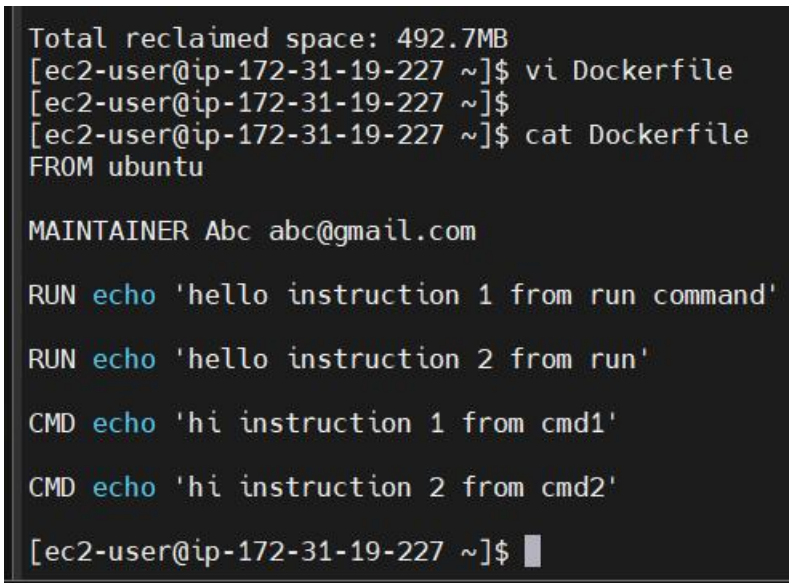
MAINTAINER Abc abc@gmail.com

RUN echo 'hello instruction 1 from run command'

RUN echo 'hello instruction 2 from run'

CMD echo 'hi instruction 1 from cmd1'

CMD echo 'hi instruction 2 from cmd2'



[ec2-user@ip-172-31-19-227 ~]$ docker build -t img-1 .
Create one docker image with image name img-1, . means in the current directory one Dockerfile is available
-t img-1 specifies the tagname (Image name is img-1),

```
[ec2-user@ip-172-31-19-227 ~]$ docker build -t img-1 .
[+] Building 3.4s (7/7) FINISHED
 => [internal] load build definition from Dockerfile
 => => transferring dockerfile: 309B
 => WARN: MaintainerDeprecated: Maintainer instruction is deprecated in favor of using label (line 3)
 => [internal] load metadata for docker.io/library/ubuntu:latest
 => [internal] load .dockerignore
 => => transferring context: 2B
 => [1/3] FROM docker.io/library/ubuntu:latest@sha256:6015f66923d7afbc53558d7ccffd325d43b4e249f41a6e93eef074c9505d2233
 => => resolve docker.io/library/ubuntu:latest@sha256:6015f66923d7afbc53558d7ccffd325d43b4e249f41a6e93eef074c9505d2233
 => => sha256:6015f66923d7afbc53558d7ccffd325d43b4e249f41a6e93eef074c9505d2233 6.69kB / 6.69kB
 => => sha256:dc17125eaac86538c57da886e494a34489122fb6a3ebb6411153d742594c2ddc 424B / 424B
 => => sha256:a0e45e2ce6e6e22e73185397d162a64fcf2f80a41c597015cab05d9a7b5913ce 2.30kB / 2.30kB
 => => sha256:0622fac788edde5d30e7bbd2688893e5452a19ff237a2e4615e2d8181321cb4e 29.72MB / 29.72MB
 => => extracting sha256:0622fac788edde5d30e7bbd2688893e5452a19ff237a2e4615e2d8181321cb4e
 => [2/3] RUN echo 'hello instruction 1 from run command'
 => [3/3] RUN echo 'hello instruction 2 from run'
 => exporting to image
 => => exporting layers
 => => writing image sha256:e4035ed9cbfa8244c58acc23602d9f87a5965d813f22b08daa0fd990e9fb826b
 => => naming to docker.io/library/img-1

 4 warnings found (use docker --debug to expand):
 - JSONArgsRecommended: JSON arguments recommended for CMD to prevent unintended behavior related to OS signals (line 9)
 - MultipleInstructionsDisallowed: Multiple CMD instructions should not be used in the same stage because only the last
 - JSONArgsRecommended: JSON arguments recommended for CMD to prevent unintended behavior related to OS signals (line 11
 - MaintainerDeprecated: Maintainer instruction is deprecated in favor of using label (line 3)
[ec2-user@ip-172-31-19-227 ~]$
```

[ec2-user@ip-172-31-19-227 ~]$ docker images
REPOSITORY TAG IMAGE ID CREATED SIZE
img-1 latest e4035ed9cbfa About a minute ago 78.1MB

```
[ec2-user@ip-172-31-19-227 ~]$
[ec2-user@ip-172-31-19-227 ~]$ docker images
REPOSITORY   TAG       IMAGE ID       CREATED              SIZE
img-1        latest    e4035ed9cbfa   About a minute ago   78.1MB
[ec2-user@ip-172-31-19-227 ~]$
```

Now run that image and see

[ec2-user@ip-172-31-19-227 ~]$ docker run e4035ed9cbfa
hi instruction 2 from cmd2

[ec2-user@ip-172-31-19-227 ~]$ cat Dockerfile
FROM ubuntu

MAINTAINER Abc abc@gmail.com

RUN echo 'hello instruction 1 from run command'

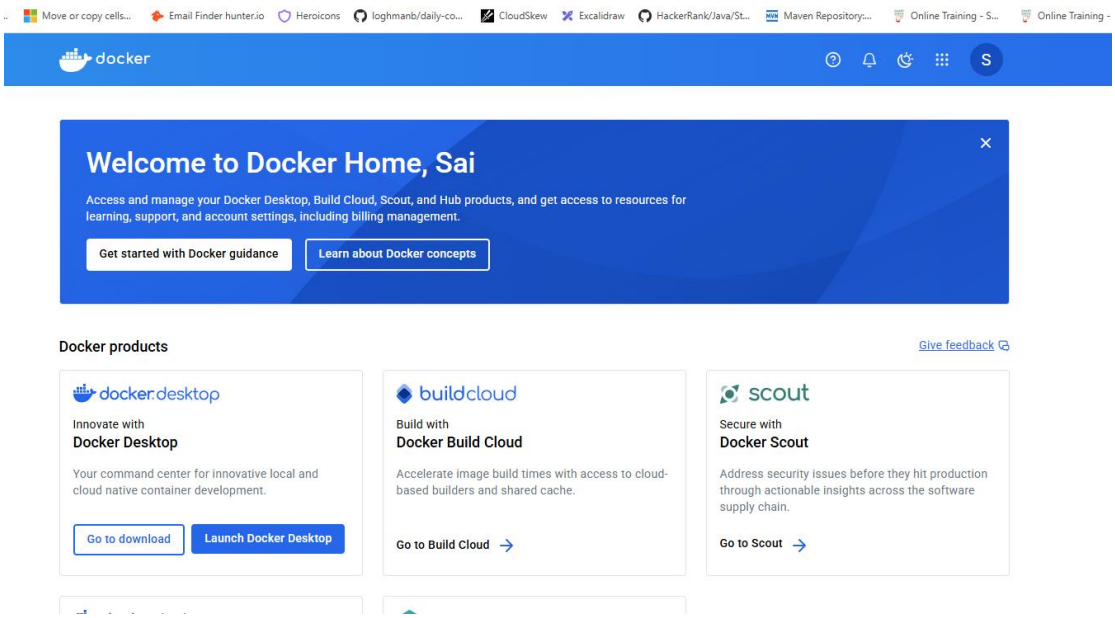
RUN echo 'hello instruction 2 from run'

CMD echo 'hi instruction 1 from cmd1'

CMD echo 'hi instruction 2 from cmd2'

It is printing the second CMD

Create a Docker account



docker login -u <username>

```
[ec2-user@ip-172-31-19-227 ~]$
[ec2-user@ip-172-31-19-227 ~]$ docker login -u saidocker567

i Info → A Personal Access Token (PAT) can be used instead.
         To create a PAT, visit https://app.docker.com/settings


Password:

WARNING! Your credentials are stored unencrypted in '/home/ec2-user/.docker/config.json'.
Configure a credential helper to remove this warning. See
https://docs.docker.com/go/credential-store/

Login Succeeded
```

docker tag img-1 <username>/img-1:v1
[ec2-user@ip-172-31-19-227 ~]$ docker tag img-1 saidocker567/img-1:v1

[ec2-user@ip-172-31-19-227 ~]$ docker tag img-1 saidocker567/img-1:latest

[ec2-user@ip-172-31-19-227 ~]$ docker push saidocker567/img-1

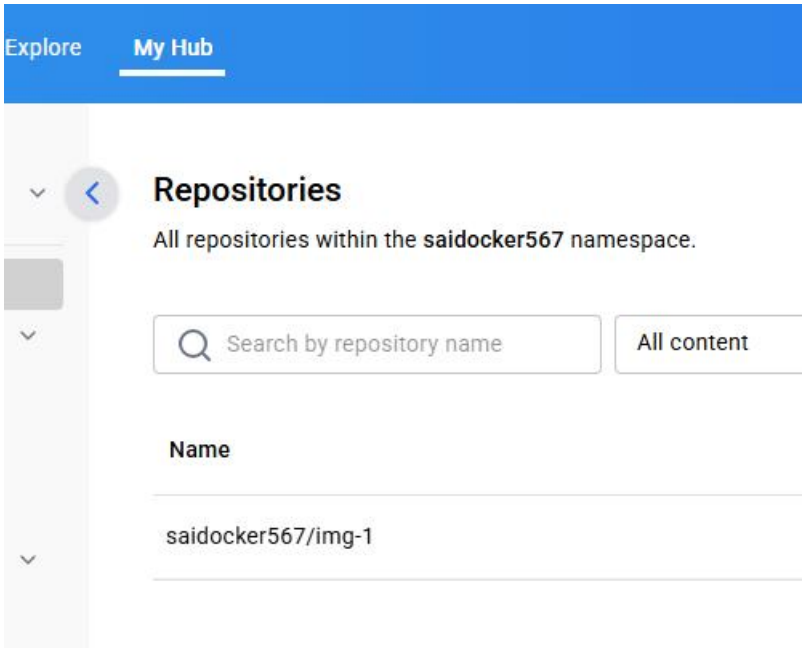
```
[ec2-user@ip-172-31-19-227 ~]$ docker login -u saidocker567

i Info → A Personal Access Token (PAT) can be used instead.
         To create a PAT, visit https://app.docker.com/settings


Password:

WARNING! Your credentials are stored unencrypted in '/home/ec2-user/.docker/config.json'.
Configure a credential helper to remove this warning. See
https://docs.docker.com/go/credential-store/

Login Succeeded
[ec2-user@ip-172-31-19-227 ~]$
[ec2-user@ip-172-31-19-227 ~]$
[ec2-user@ip-172-31-19-227 ~]$ docker tag img-1 saidocker567/img-1:latest
[ec2-user@ip-172-31-19-227 ~]$ docker push saidocker567/img-1
Using default tag: latest
The push refers to repository [docker.io/saidocker567/img-1]
5f70bf18a086: Pushed
8901a649dd5a: Mounted from library/ubuntu
latest: digest: sha256:c25a6ad969798d1d09bd82838cb7237237ede3a9581e9d3dc2307abdce6ea039 size: 941
[ec2-user@ip-172-31-19-227 ~]$
```



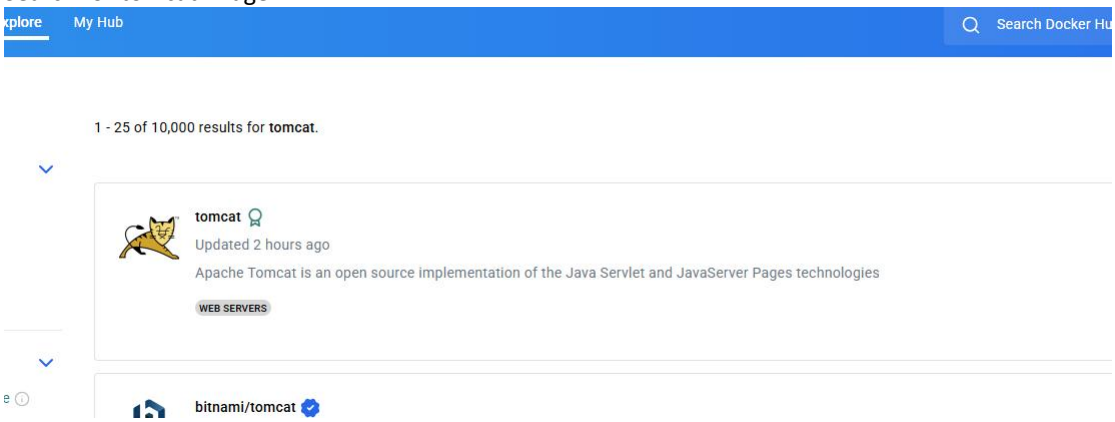
We can see the pushed image in Docker hub

Push Docker image into Docker hub account:
Create an account in Docker Hub and make sure to note username and password
--> Login into Docker hub account
docker login
It will ask username and password please do specify
--> tag the docker image
docker tag <image-name><tag-name>
docker tag img-1 <username>/<image-name>

--> Finally push the Docker image to Docker hub
docker push <tag-name>

Dockerizing Java Web App

Search for tomcat image



```
-rw-r--r--. 1 ec2-user ec2-user 211 May  5 23:57 Dockerfile
[ec2-user@ip-172-31-19-227 ~]$ rm Dockerfile
[ec2-user@ip-172-31-19-227 ~]$
[ec2-user@ip-172-31-19-227 ~]$ docker system prune -a
WARNING! This will remove:
  - all stopped containers
  - all networks not used by at least one container
  - all images without at least one container associated to them
  - all build cache

Are you sure you want to continue? [y/N] y
Deleted Containers:
b31cba69d64d7057ff4ce663ad6668994b93e0990ced742dc8d899271504cba6

Deleted Images:
untagged: img-1:latest
untagged: saidocker567/img-1:latest
untagged: saidocker567/img-1@sha256:c25a6ad969798d1d09bd82838cb7237237ede3a9581e9d3dc2307abdce6ea039
deleted: sha256:e4035ed9cbfa8244c58acc23602d9f87a5965d813f22b08daa0fd990e9fb826b

Deleted build cache objects:
ndzpyg2n4o982cp8v7mhiuru5
h5y4khrme5hw8j36xh3d0cq3o
54hytjlzq1pg3drol50ttwumd
gghup659340c0lgcrv2fazo9w
oczylq7zhb78q3zy2db3xk1rz

Total reclaimed space: 211B
[ec2-user@ip-172-31-19-227 ~]$ docker ps
CONTAINER ID   IMAGE     COMMAND   CREATED   STATUS    PORTS     NAMES
[ec2-user@ip-172-31-19-227 ~]$
```

Maven will install Java as well

[ec2-user@ip-172-31-19-227 ~]$ sudo yum install maven

mvn archetype:generate -DgroupId=com.example \
 -DartifactId=my-webapp \
 -DarchetypeArtifactId=maven-archetype-webapp \
 -DarchetypeVersion=1.4 \
 -DinteractiveMode=false

```
[ec2-user@ip-172-31-19-227 ~]$
[ec2-user@ip-172-31-19-227 ~]$ mvn archetype:generate -DgroupId=com.example \
  -DartifactId=my-webapp \
  -DarchetypeArtifactId=maven-archetype-webapp \
  -DarchetypeVersion=1.4 \
  -DinteractiveMode=false
[INFO] Scanning for projects...
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/p
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/
```

[ec2-user@ip-172-31-19-227 my-webapp]$ mvn clean package

```
total 0
drwxr-xr-x. 3 ec2-user ec2-user 32 May  6 02:10 my-webapp
[ec2-user@ip-172-31-19-227 ~]$ cd my-webapp/
[ec2-user@ip-172-31-19-227 my-webapp]$ ls -l
total 4
-rw-r--r--. 1 ec2-user ec2-user 2201 May  6 02:10 pom.xml
drwxr-xr-x. 3 ec2-user ec2-user   18 May  6 02:10 src
[ec2-user@ip-172-31-19-227 my-webapp]$ mvn clean package
[INFO] Scanning for projects...
[INFO]
[INFO] ----------------------< com.example:my-webapp >----
[INFO] Building my-webapp Maven Webapp 1.0-SNAPSHOT
[INFO] --------------------------------[ war ]-------------
Downloading from central: https://repo.maven.apache.org/mav
```

[ec2-user@ip-172-31-19-227 my-webapp]$ vi Dockerfile
FROM openjdk:17

MAINTAINER Abc abc@gmail.com

COPY target/my-webapp.war /usr/app/my-webapp.war

WORKDIR /usr/app/

EXPOSE 8080

ENTRYPOINT ["java" , "-jar" , ""]

```
[ec2-user@ip-172-31-19-227 my-webapp]$ vi Dockerfile
[ec2-user@ip-172-31-19-227 my-webapp]$ cat Dockerfile
FROM openjdk:17

MAINTAINER Abc abc@gmail.com

COPY target/my-webapp.war  /usr/app/my-webapp.war

WORKDIR /usr/app/

EXPOSE 8080

ENTRYPOINT ["java" , "-jar" , ""]

[ec2-user@ip-172-31-19-227 my-webapp]$
```

[ec2-user@ip-172-31-19-227 my-webapp]$ docker build -t webapp .

```
[ec2-user@ip-172-31-19-227 my-webapp]$
[ec2-user@ip-172-31-19-227 my-webapp]$ docker build -t webapp .
[+] Building 10.1s (9/9) FINISHED
 => [internal] load build definition from Dockerfile
 => => transferring dockerfile: 264B
 => WARN: MaintainerDeprecated: Maintainer instruction is deprecated in favor of using label (line 3)
 => [internal] load metadata for docker.io/library/openjdk:17
 => [auth] library/openjdk:pull token for registry-1.docker.io
 => [internal] load .dockerignore
 => => transferring context: 2B
 => [internal] load build context
 => => transferring context: 2.25kB
 => [1/3] FROM docker.io/library/openjdk:17@sha256:528707081fdb9562eb819128a9f85ae7fe000e2fbaeaf9f87662e7b3f38cb7d8
 => => resolve docker.io/library/openjdk:17@sha256:528707081fdb9562eb819128a9f85ae7fe000e2fbaeaf9f87662e7b3f38cb7d8
 => => sha256:528707081fdb9562eb819128a9f85ae7fe000e2fbaeaf9f87662e7b3f38cb7d8 1.04kB / 1.04kB
 => => sha256:98f0304b3a3b7c12ce641177a99d1f3be56f532473a528fda38d53d519cafb13 954B / 954B
 => => sha256:5e28ba2b4cdb3a7c3bd0ee2e635a5f6481682b77eabf8b51a17ea8bfe1c05697 4.45kB / 4.45kB
 => => sha256:38a980f2cc8accf69c23deae6743d42a87eb34a54f02396f3fcfd7c2d06e2c5b 42.11MB / 42.11MB
 => => sha256:de849f1cfbe60b1c06a1db83a3129ab0ea397c4852b98e3e4300b12ee57ba111 13.53MB / 13.53MB
 => => sha256:a7203ca35e75e068651c9907d659adc721dba823441b78639fde66fc988f042f 187.53MB / 187.53MB
 => => extracting sha256:38a980f2cc8accf69c23deae6743d42a87eb34a54f02396f3fcfd7c2d06e2c5b
 => => extracting sha256:de849f1cfbe60b1c06a1db83a3129ab0ea397c4852b98e3e4300b12ee57ba111
 => => extracting sha256:a7203ca35e75e068651c9907d659adc721dba823441b78639fde66fc988f042f
 => [2/3] COPY target/my-webapp.war  /usr/app/my-webapp.war
 => [3/3] WORKDIR /usr/app/
 => exporting to image
 => => exporting layers
 => => writing image sha256:5d77e44200b394a295e31a37c6e5ccfe09e475a7b2645618628d3d80baca361b
 => => naming to docker.io/library/webapp
```

```
[ec2-user@ip-172-31-19-227 my-webapp]$
[ec2-user@ip-172-31-19-227 my-webapp]$
[ec2-user@ip-172-31-19-227 my-webapp]$ docker images
REPOSITORY   TAG       IMAGE ID       CREATED              SIZE
webapp       latest    5d77e44200b3   About a minute ago   471MB
[ec2-user@ip-172-31-19-227 my-webapp]$
```

[ec2-user@ip-172-31-19-227 my-webapp]$ docker run -d -p 8181:8080 webapp

Some error re-running Maven
[ec2-user@ip-172-31-19-227 my-webapp]$ mvn archetype:generate -DgroupId=com.example -DartifactId=demo-webapp -DarchetypeArtifactId=maven-archetype-webapp -DarchetypeVersion=1.4 -DinteractiveMode=false

[ec2-user@ip-172-31-19-227 ~]$ ls -l
total 0
drwxr-xr-x. 3 ec2-user ec2-user 32 May 6 02:44 demo-webapp
drwxr-xr-x. 5 ec2-user ec2-user 83 May 6 02:43 my-webapp

```
total 4
-rw-r--r--. 1 ec2-user ec2-user 2207 May  6 02:44 pom.xml
drwxr-xr-x. 3 ec2-user ec2-user   18 May  6 02:44 src
[ec2-user@ip-172-31-19-227 demo-webapp]$ vi pom.xml
[ec2-user@ip-172-31-19-227 demo-webapp]$
[ec2-user@ip-172-31-19-227 demo-webapp]$
```

https://mvnrepository.com/artifact/javax.servlet/javax.servlet-api/4.0.1

```
    <maven.compiler.source>1.7</maven.compiler.source>
    <maven.compiler.target>1.7</maven.compiler.target>
  </properties>

  <dependencies>
    <dependency>
      <groupId>junit</groupId>
      <artifactId>junit</artifactId>
      <version>4.11</version>
      <scope>test</scope>
    </dependency>


   <dependency>
    <groupId>javax.servlet</groupId>
    <artifactId>javax.servlet-api</artifactId>
    <version>4.0.1</version>
    <scope>provided</scope>
   </dependency>
  </dependencies>

  <build>
```

Retrying with a different repo

```
Complete!
[ec2-user@ip-172-31-19-227 ~]$ git clone https://github.com/Nagarajdemo/SpringSecurity_JWT
Cloning into 'SpringSecurity_JWT'...
remote: Enumerating objects: 83, done.
remote: Counting objects: 100% (83/83), done.
remote: Compressing objects: 100% (54/54), done.
remote: Total 83 (delta 14), reused 80 (delta 11), pack-reused 0 (from 0)
Receiving objects: 100% (83/83), 15.28 KiB | 5.09 MiB/s, done.
Resolving deltas: 100% (14/14), done.
[ec2-user@ip-172-31-19-227 ~]$
```

[ec2-user@ip-172-31-19-227 SpringSecurity_JWT]$ mvn clean package

```
)
Downloaded from central: https://repo.maven.apache.org/maven2/org/vafer/jdependency/2.8.0/jdepend
Downloaded from central: https://repo.maven.apache.org/maven2/org/eclipse/aether/aether-util/1.0
/s)
Downloaded from central: https://repo.maven.apache.org/maven2/commons-io/commons-io/2.13.0/commo
[INFO] Replacing main artifact /home/ec2-user/SpringSecurity_JWT/target/springsecurity-0.0.1-SNA
in BOOT-INF/.
[INFO] The original artifact has been renamed to /home/ec2-user/SpringSecurity_JWT/target/springs
[INFO] ------------------------------------------------------------------------
[INFO] BUILD SUCCESS
[INFO] ------------------------------------------------------------------------
[INFO] Total time:  32.295 s
[INFO] Finished at: 2025-05-07T00:29:09Z
[INFO] ------------------------------------------------------------------------
[ec2-user@ip-172-31-19-227 SpringSecurity_JWT]$
```

There is a jar file inside the target folder

```
[ec2-user@ip-172-31-19-227 SpringSecurity_JWT]$
[ec2-user@ip-172-31-19-227 SpringSecurity_JWT]$ ls -l target
total 95360
drwxr-xr-x. 3 ec2-user ec2-user       63 May  7 00:29 classes
drwxr-xr-x. 3 ec2-user ec2-user       25 May  7 00:28 generated-sources
drwxr-xr-x. 3 ec2-user ec2-user       30 May  7 00:29 generated-test-sources
drwxr-xr-x. 2 ec2-user ec2-user       28 May  7 00:29 maven-archiver
drwxr-xr-x. 3 ec2-user ec2-user       35 May  7 00:28 maven-status
-rw-r--r--. 1 ec2-user ec2-user 97626813 May  7 00:29 springsecurity-0.0.1-SNAPSHOT.jar
-rw-r--r--. 1 ec2-user ec2-user    20151 May  7 00:29 springsecurity-0.0.1-SNAPSHOT.jar.original
drwxr-xr-x. 9 ec2-user ec2-user      168 May  7 00:29 test-classes
[ec2-user@ip-172-31-19-227 SpringSecurity_JWT]$
```

[ec2-user@ip-172-31-19-227 SpringSecurity_JWT]$ vi Dockerfile

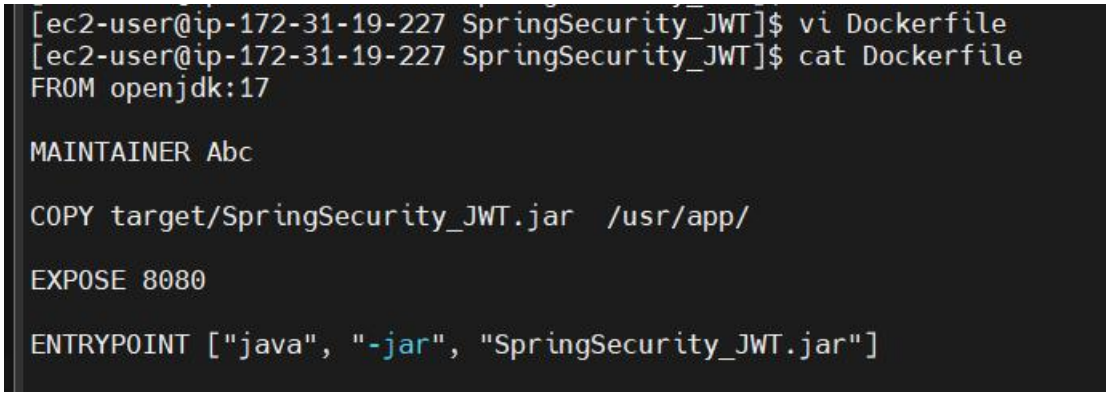
[ec2-user@ip-172-31-19-227 SpringSecurity_JWT]$ cat Dockerfile
FROM openjdk:17

MAINTAINER Abc

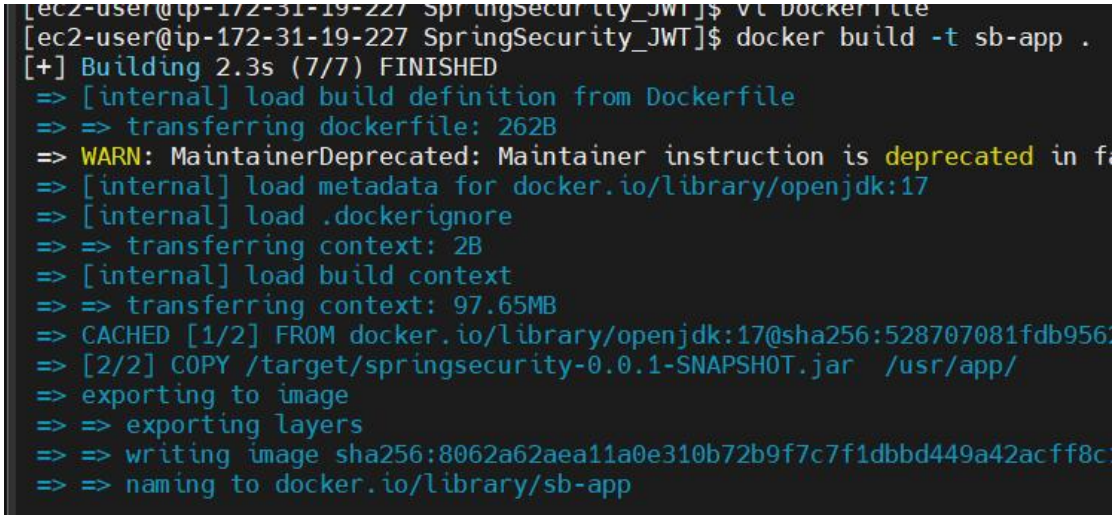
COPY /target/springsecurity-0.0.1-SNAPSHOT.jar /usr/app/

EXPOSE 8080

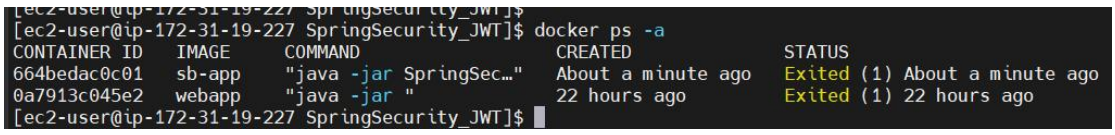
ENTRYPOINT ["java", "-jar", "SpringSecurity_JWT.jar"]



[ec2-user@ip-172-31-19-227 SpringSecurity_JWT]$ docker build -t sb-app .



[ec2-user@ip-172-31-19-227 SpringSecurity_JWT]$ docker run -d -p 8080:8080 sb-app
664bedac0c0155b5cf85e10c8c39f1b338ddfdca28355ca7a8f8e1ab29f1048b



[ec2-user@ip-172-31-19-227 SpringSecurity_JWT]$ docker logs 664bedac0c01
Error: Unable to access jarfile SpringSecurity_JWT.jar

```
[ec2-user@ip-172-31-19-227 SpringSecurity_JWT]$
[ec2-user@ip-172-31-19-227 SpringSecurity_JWT]$ docker run -d -p 8080:8080 sb-app
664bedac0c0155b5cf85e10c8c39f1b338ddfdca28355ca7a8f8e1ab29f1048b
[ec2-user@ip-172-31-19-227 SpringSecurity_JWT]$
[ec2-user@ip-172-31-19-227 SpringSecurity_JWT]$
[ec2-user@ip-172-31-19-227 SpringSecurity_JWT]$ docker ps -a
CONTAINER ID   IMAGE     COMMAND                  CREATED             STATUS
664bedac0c01   sb-app    "java -jar SpringSec…"   About a minute ago   Exited (1) About a minute ago
0a7913c045e2   webapp    "java -jar "             22 hours ago         Exited (1) 22 hours ago
[ec2-user@ip-172-31-19-227 SpringSecurity_JWT]$ docker logs 664bedac0c01
Error: Unable to access jarfile SpringSecurity_JWT.jar
[ec2-user@ip-172-31-19-227 SpringSecurity_JWT]$
```

[ec2-user@ip-172-31-19-227 SpringSecurity_JWT]$ vi Dockerfile
[ec2-user@ip-172-31-19-227 SpringSecurity_JWT]$
[ec2-user@ip-172-31-19-227 SpringSecurity_JWT]$ cat Dockerfile
FROM openjdk:17

MAINTAINER Abc

COPY /target/springsecurity-0.0.1-SNAPSHOT.jar /usr/app/

EXPOSE 8080

ENTRYPOINT ["java", "-jar", "springsecurity-0.0.1-SNAPSHOT.jar"]

Updated Dockerfile

[ec2-user@ip-172-31-19-227 SpringSecurity_JWT]$ docker run -d -p 8080:8080 sb-app
f3c9834b46cd86f7866f41e319910ed1f48f556af1b6d6d1de0efc5fee9f0853

```
[ec2-user@ip-172-31-19-227 SpringSecurity_JWT]$ docker ps -a
CONTAINER ID   IMAGE     COMMAND                  CREATED          STATUS
f3c9834b46cd   sb-app    "java -jar SpringSec…"   27 seconds ago   Exited (1) 26 seconds ago
cdfe57b5e834   sb-app    "java -jar SpringSec…"   3 minutes ago    Exited (1) 3 minutes ago
664bedac0c01   sb-app    "java -jar SpringSec…"   9 minutes ago    Exited (1) 9 minutes ago
0a7913c045e2   webapp    "java -jar "             22 hours ago     Exited (1) 22 hours ago
[ec2-user@ip-172-31-19-227 SpringSecurity_JWT]$
```

There is some problem accessing with public IP
Next class