

# DevOps Certification Training

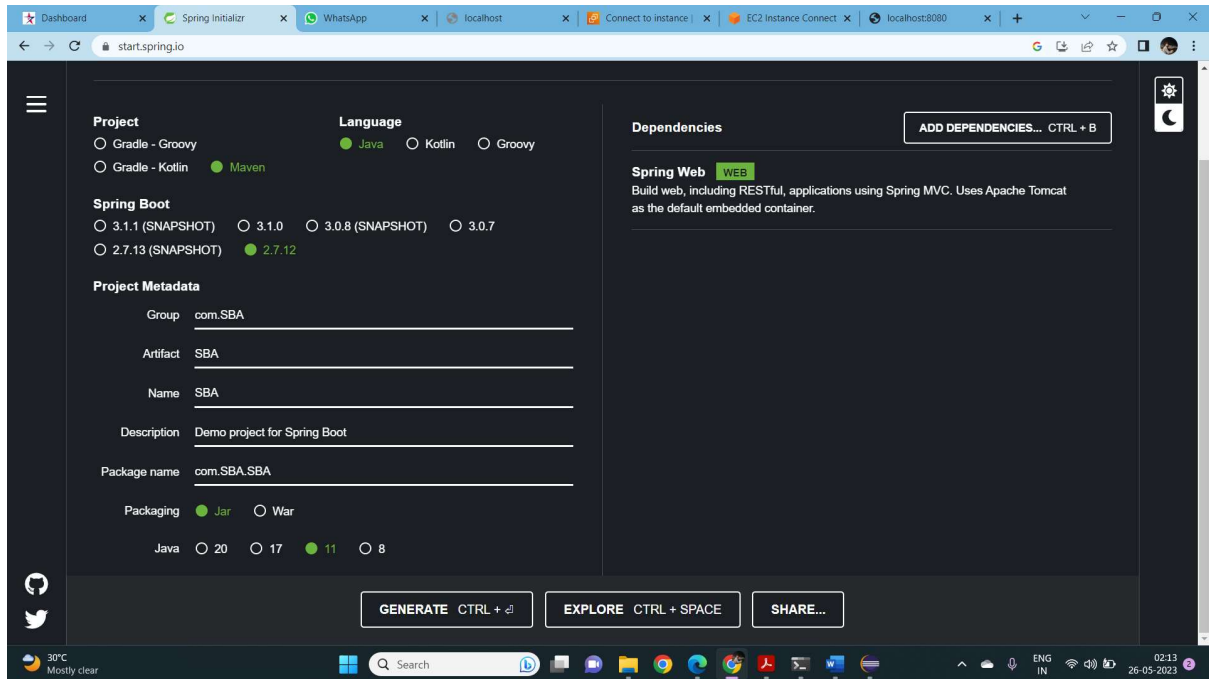
## Docker Assignment – 2

### Containerizing Spring boot Application

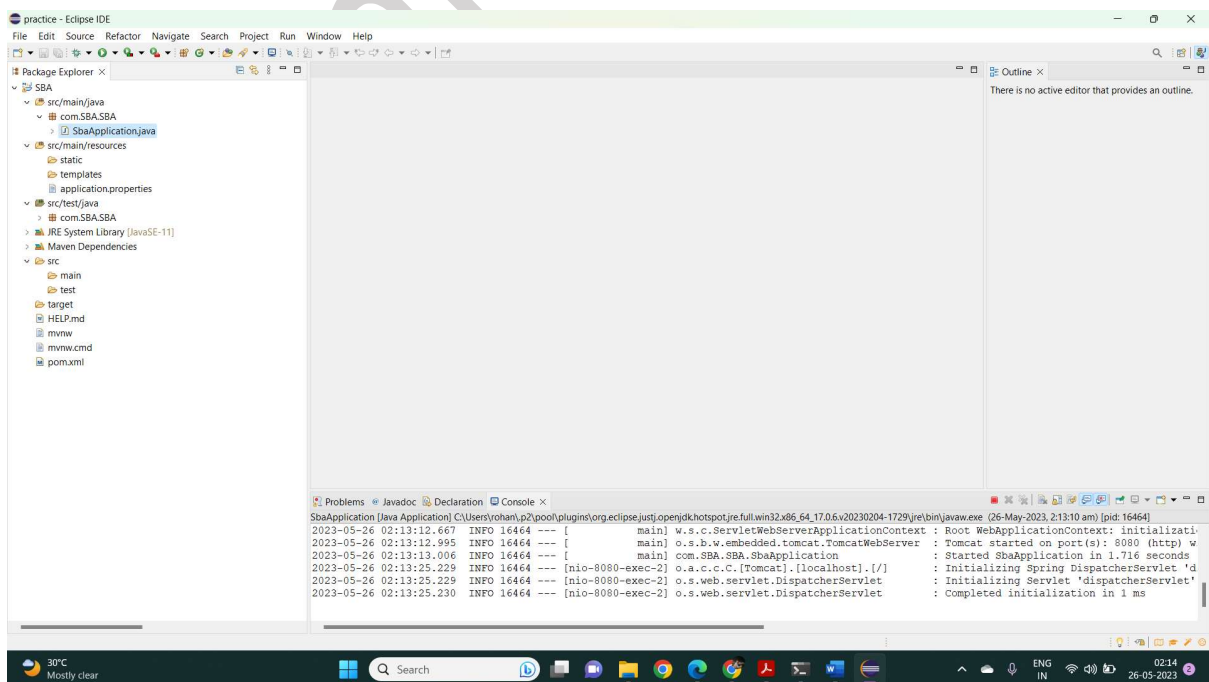
Name: Raparathi Rohan

Batch: 27<sup>th</sup> March 2023

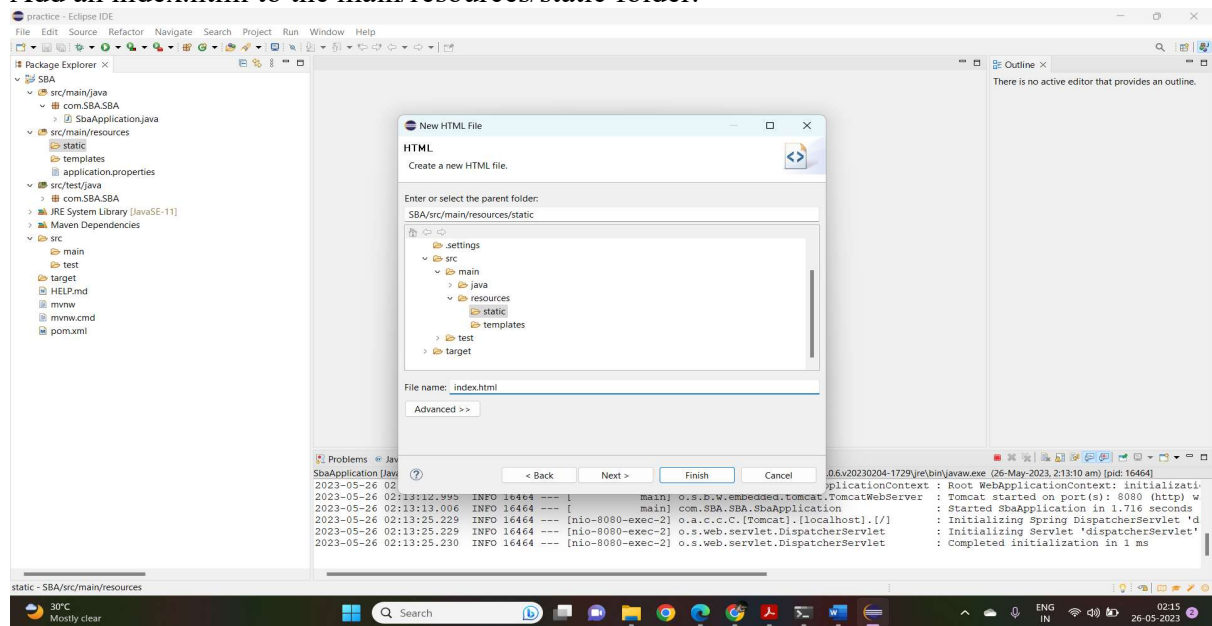
Create and download a Spring Boot application with Spring initializr



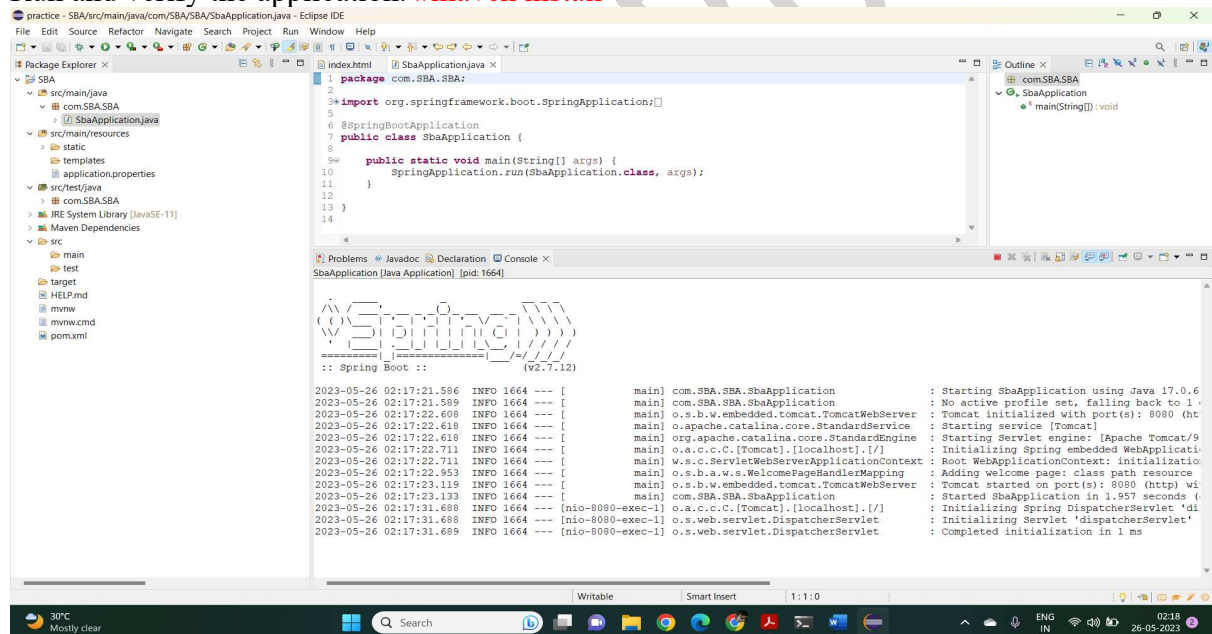
Import the application into Eclipse



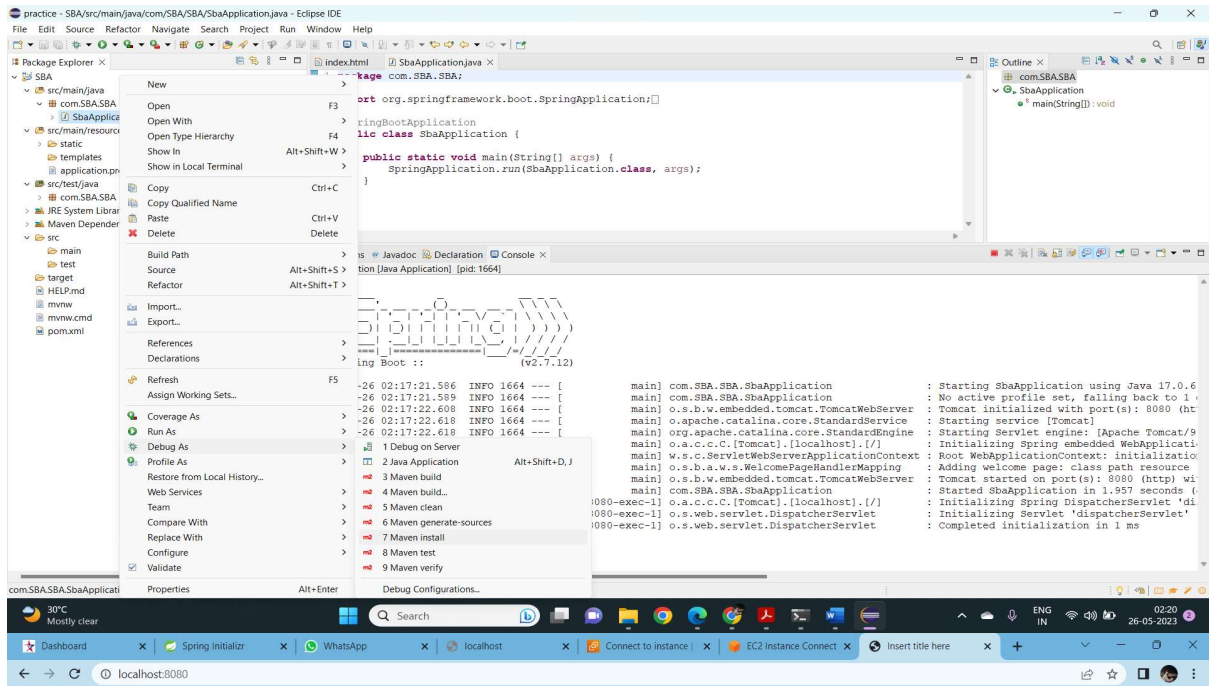
Add an index.html to the main/resources/static folder.



Run and verify the application. #maven install



#Localhost:8080

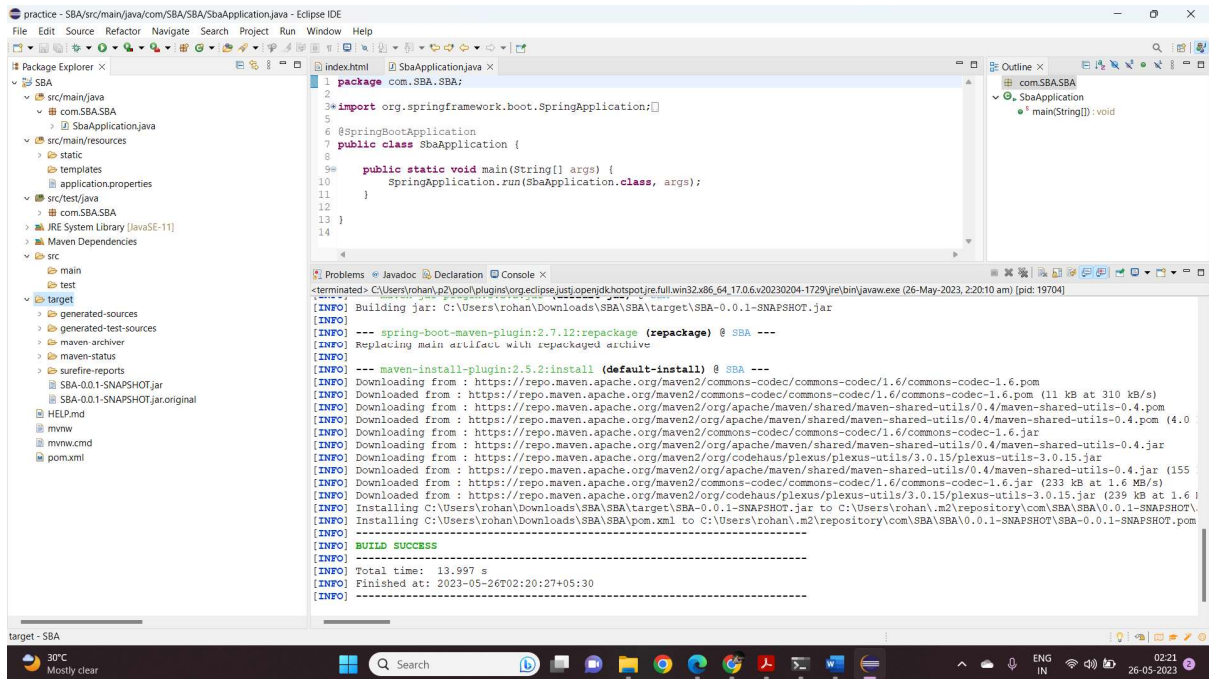


## Rohan Raparathi Devops Practice



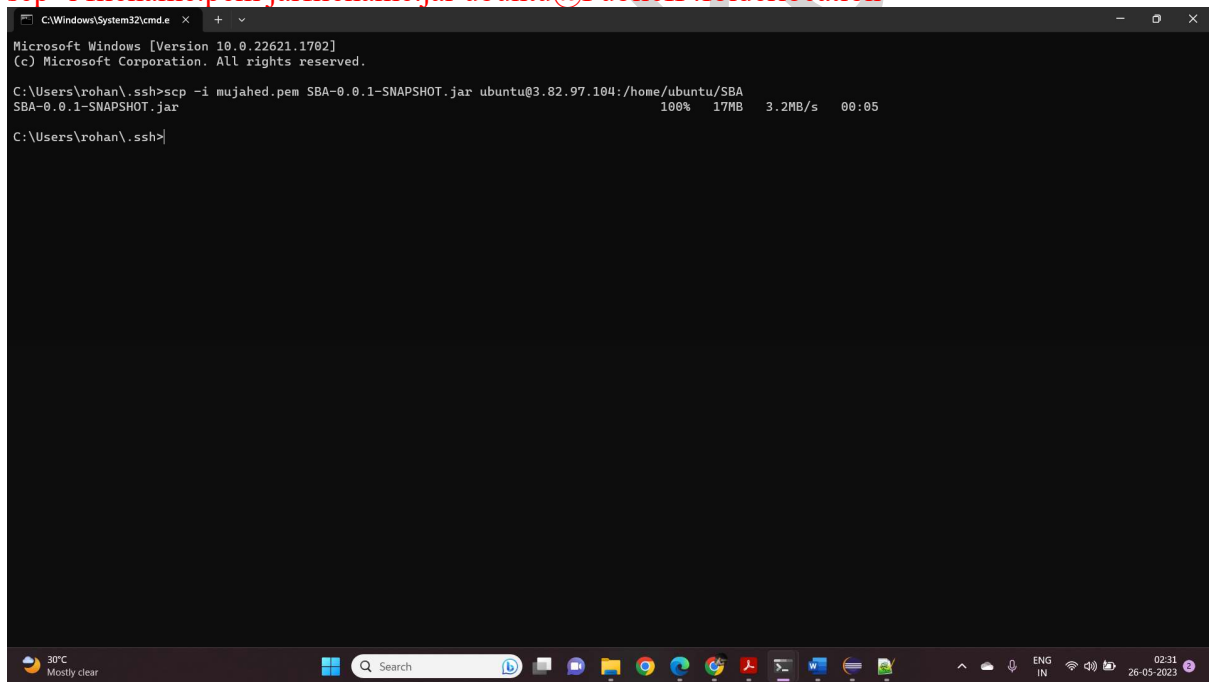
After \$maven install,

Build should be success and jar files will be created in target folder and now this jar files need to be pushed into AWS EC2 instance.

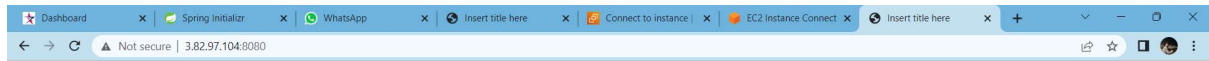


Cut and paste jar file in pem file location (ie., .ssh folder) for pushing into AWS EC2 instance

`scp -i filename.pem jarfilename.jar ubuntu@PublicIP:folderlocation`





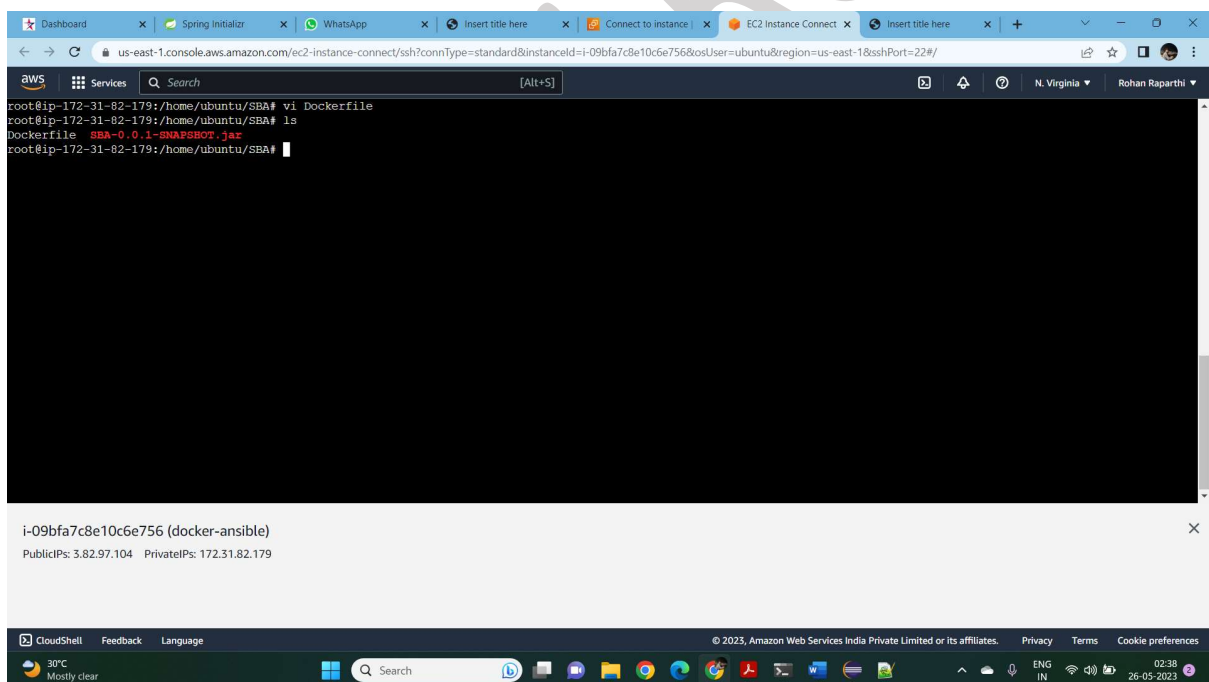


## Rohan Raparathi Devops Practice



Write a Dockerfile to containerize the application

vi Dockerfile



Dockerfile inputs:

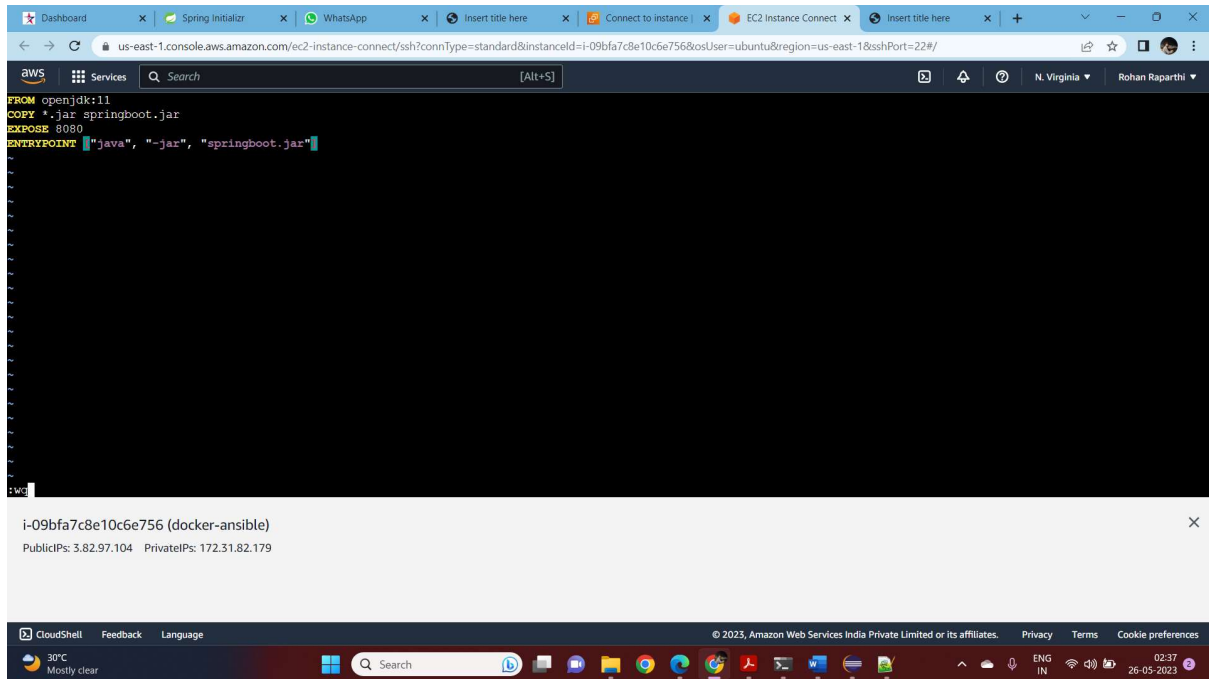
FROM openjdk:11

COPY \*.jar springboot.jar

EXPOSE 8080

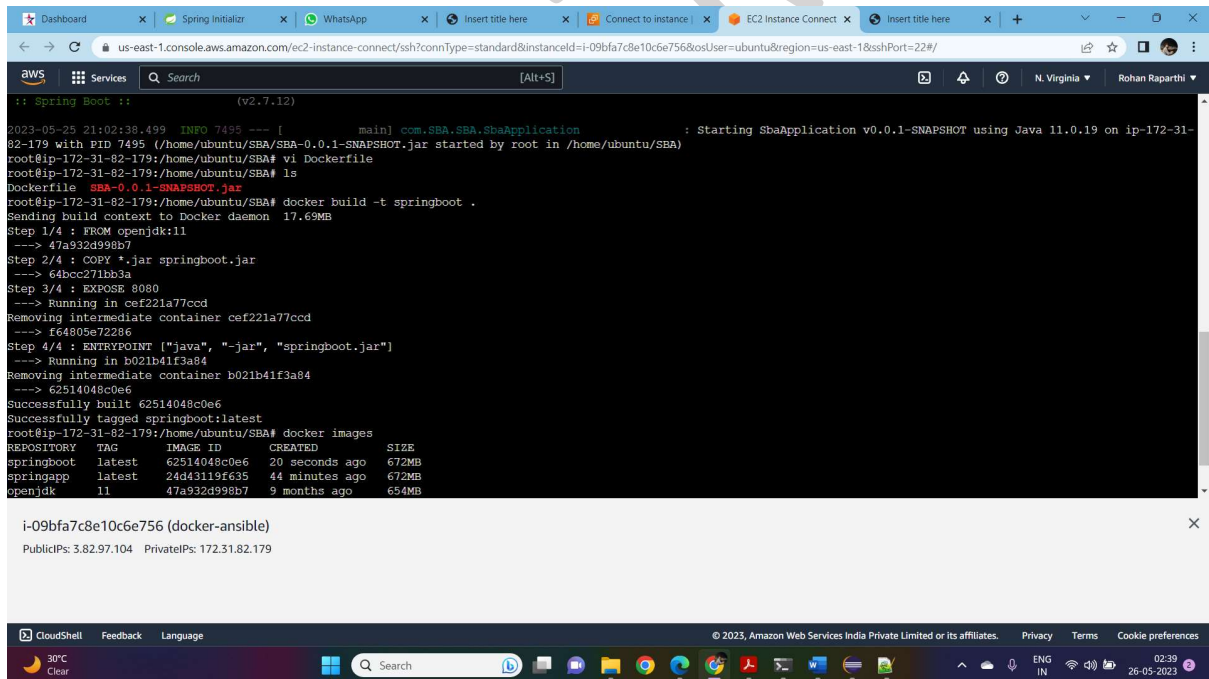
ENTRYPOINT ["java", "-jar", "springboot.jar"]





Build the docker image.

`docker build -t filename .`



Run on application as container in detached mode and on system port 8088

`Docker run -itd p 8088:8080`

Dashboard | Spring Initializr | WhatsApp | Insert title here | Connect to instance | EC2 | EC2 Instance Connect | N. Virginia | Rohan Raparathi

us-east-1.console.aws.amazon.com/ec2-instance-connect/ssh?connType=standard&instanceId=i-09bfa7c8e10c6e756&osUser=ubuntu&region=us-east-1&sshPort=22#/?

```
root@ip-172-31-82-179:/home/ubuntu/SBA# docker images
REPOSITORY TAG IMAGE ID CREATED SIZE
springboot latest 62514048c0e6 2 minutes ago 672MB
springapp latest 24d43119f635 46 minutes ago 672MB
openjdk 11 47a932d998b7 9 months ago 654MB

root@ip-172-31-82-179:/home/ubuntu/SBA# docker ps
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES
d3747a9c10a6 springapp "java -jar springboo..." 43 minutes ago Up 43 minutes 0.0.0.0:8089->8080/tcp, :::8089->8080/tcp fervent_heyrovsky

root@ip-172-31-82-179:/home/ubuntu/SBA# docker login
Authentication with existing credentials...
WARNING! Your password will be stored unencrypted in /root/.docker/config.json.
Configure a credential helper to remove this warning. See
https://docs.docker.com/engine/reference/commandline/login/#credentials-store

Login Succeeded

root@ip-172-31-82-179:/home/ubuntu/SBA# sudo docker run -itd -p 8089:8080 springapp2
Unable to find image 'springapp2:latest' locally
docker: Error response from daemon: pull access denied for springapp2, repository does not exist or may require 'docker login': denied: requested access to the resource is denied.
See 'docker run --help'.

root@ip-172-31-82-179:/home/ubuntu/SBA# sudo docker run -itd -p 8089:8080 springboot
21ae39eac45dd43d5b0fe0564411ed8f2f28d629f15729c5794fe4c8dddc874
docker: Error response from daemon: driver failed programming external connectivity on endpoint awesome_hodgkin (ff1f9f10de5a8b005465b9b66f209cf3fe07b8f005bdaf4a749f88d3e9f8b47): Bind for 0.0.0.0:8089 failed: port is already allocated.

root@ip-172-31-82-179:/home/ubuntu/SBA# sudo docker run -itd -p 8088:8080 springboot
f66a69140b8de845c90c27d83dbd047d057064362e9d2hc6808790834447016af

root@ip-172-31-82-179:/home/ubuntu/SBA#
```

i-09bfa7c8e10c6e756 (docker-ansible)

PublicIPs: 3.82.97.104 PrivateIPs: 172.31.82.179

CloudShell Feedback Language © 2023, Amazon Web Services India Private Limited or its affiliates. Privacy Terms Cookie preferences

30°C Clear Search ENG IN 02:43 26-05-2023

publicIP:8088

Dashboard | Spring Initializr | WhatsApp | Insert title here | Connect to instance | EC2 | EC2 Instance Connect | Insert title here

← → ↻ ⚠ Not secure | 3.82.97.104:8088

## Rohan Raparathi Devops Practice

30°C Clear Search ENG IN 02:43 26-05-2023

Push the docker image to Docker Hub

docker tag springboot:latest rohanraparathi/jar

docker push rohanraparathi/jar



```
Dashboard x Spring Initializer x WhatsApp x Insert title here x Connect to inst... x EC2 Instance Con... x Insert title here x Docker Hub x +
us-east-1.console.aws.amazon.com/ec2-instance-connect/ssh?connType=standard&instanceId=i-09bfa7c8e10c6e756&osUser=ubuntu&region=us-east-1&sshPort=22#/

root@ip-172-31-82-179:/home/ubuntu/SBA# docker images
REPOSITORY TAG IMAGE ID CREATED SIZE
springboot latest 62514048c0e6 7 minutes ago 672MB
springapp latest 24d43119f635 51 minutes ago 672MB
openjdk 11 47a932d998b7 9 months ago 654MB

root@ip-172-31-82-179:/home/ubuntu/SBA# docker ps
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES
f66a69140b8d springboot "java -jar springboo..." 3 minutes ago Up 3 minutes 0.0.0.0:8088->8080/tcp, :::8088->8080/tcp vigorous_yonath
d3747a9c10a6 springapp "java -jar springboo..." 48 minutes ago Up 48 minutes 0.0.0.0:8089->8080/tcp, :::8089->8080/tcp fervent_heyrovsky

root@ip-172-31-82-179:/home/ubuntu/SBA# docker tag springboot:latest rohanraparathi/jar
root@ip-172-31-82-179:/home/ubuntu/SBA# docker push rohanraparathi/jar
Using default tag: latest
The push refers to repository [docker.io/rohanraparathi/jar]
01b6a76696bb: Pushed
7b7f3078e1db: Mounted from library/openjdk
826c3dddbb29c: Mounted from library/openjdk
b626401ef603: Mounted from library/openjdk
9b55156abf26: Mounted from library/openjdk
293d5db30c9f: Mounted from library/openjdk
03127c0b4790: Mounted from library/openjdk
9c742c6c7a5: Mounted from library/openjdk
latest: digest: sha256:18a79d1c41e4d38dddc85fd3b89f18832b71cfc4076508802bb7cbd837bdeada size: 2007

root@ip-172-31-82-179:/home/ubuntu/SBA#
```

i-09bfa7c8e10c6e756 (docker-ansible)

PublicIPs: 3.82.97.104 PrivateIPs: 172.31.82.179



Dashboard x Spring Initializer x WhatsApp x Insert title here x Connect to inst... x EC2 Instance Con... x Insert title here x rohanraparathi/ja... x +

hub.docker.com/repository/docker/rohanraparathi/jar/general

docker hub Search Docker Hub Explore Repositories Organizations Help Upgrade rohanraparathi

rohanraparathi Repositories jar General Using 0 of 1 private repositories. Get more

General Tags Builds Collaborators Webhooks Settings

Add a short description for this repository  
The short description is used to index your content on Docker Hub and in search engines. It's visible to users in search results. Update

rohanraparathi / jar  
Description  
This repository does not have a description  
Last pushed: a minute ago

Docker commands  
To push a new tag to this repository.  
Public View  
docker push rohanraparathi/jar:tagname

Tags  
This repository contains 2 tag(s).  
Tag OS Type Pulled Pushed  
latest a minute ago  
1.0.0 a day ago

Automated Builds  
Manually pushing images to Hub? Connect your account to GitHub or Bitbucket to automatically build and tag new images whenever your code is updated, so you can focus your time on creating.  
Available with Pro, Team and Business subscriptions. Read more about automated builds.  
Upgrade

Repository overview

Dashboard x Spring Initializr x WhatsApp x Insert title here x Connect to insta x EC2 Instance Co x Insert title here x rohanraparthy/jar x

hub.docker.com/repository/docker/rohanraparthy/jar/tags?page=1&ordering=last\_updated

dockerhub Search Docker Hub Explore Repositories Organizations Help Upgrade rohanraparthy

rohanraparthy Repositories jar Tags Using 0 of 1 private repositories. Get more

General Tags Builds Collaborators Webhooks Settings

sort by Newest Filter Tags Go to Advanced Image Management Delete

TAG	DIGEST	OS/ARCH	SCANNED	LAST PULL	COMPRESSED SIZE
latest Last pushed a minute ago by rohanraparthy	18a79d1cd1e4	linux/amd64	---	---	332.85 MB
1.0.0 Last pushed a day ago by rohanraparthy	5e8e613758ea	linux/amd64	---	a day ago	84.76 MB

docker pull rohanraparthy/jar:latest

docker pull rohanraparthy/jar:1.0.0

https://hub.docker.com/repository/docker/rohanraparthy/jar/tags

30°C Clear Search ENG IN 02:49 26-05-2023