1. Upload spring boot jar file in S3 bucket and launch the EC2 instance install java software and download from S3 bucket and run.
2. We push spring boot project to git hub repository and launch Ec2 instance and install git, java and maven. Then build the project and run the jar file.
3. In local machine create spring boot project and create image using docker and push this image to docker hub account. Launch ec2 install and install only docker and pull and run the image.
4. We push complete code(Pet clinic develop using spring boot with web and thymeleaf starter) and push this project to git repository. Then launch EC2 instance. Then in EC2 instance install java, Jenkin, docker and docker compose. Then create Jenkin pipe line job which is responsible to run docker – compose.

**Software installation**

sudo yum install java-17

sudo yum install maven

install Jenkin on EC2 instance

sudo wget -O /etc/yum.repos.d/jenkins.repo <https://pkg.jenkins.io/redhat/jenkins.repo>

sudo rpm --import <https://pkg.jenkins.io/redhat-stable/jenkins.io-2023.key>

sudo yum install jenkins

to start Jenkin service

sudo service jenkins start

to check the status

sudo systemctl status Jenkins

open the browser and public Ip Adress and port number 8080

This one is get the password

sudo cat /var/lib/jenkins/secrets/initialAdminPassword

**install docker**

sudo yum install docker

sudo service docker start

sudo docker info

sudo docker images

-----if you want to run docker and docker-compose in jenkin then please execute these command ---------------------

sudo usermod -a -G docker jenkins

sudo usermod -a -G docker ec2-user (ec2-user is user name of instance )

sudo chmod 777 /var/run/docker.sock

sudo service jenkins restart