SIMPLILEARN PHASE 5
CI/CD DEPLOYMENT FOR SPRINGBOOT APPLICATION

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Github: https://github.com/Rohithvv98/Simplilearn_Phase5_.git

Technologies Used:

- AWS EC2
- Jenkins
- Docker
- Github

Hosting springboot project in local machine

Steps :

1. From the file location of the project open the command prompt
2. Run command : mvn clean package
3. Now to create an image for docker run the command : docker build -t springbootimage .
4. After image is succesfully created run the command: docker run -p 8085:8080 -- namespringbootcontainer springbootimage
5. After this open browser and check http://localhost: 8085

Hosting springboot project in EC2 Instance

Step 1:

Creating an EC2 Instance

- From AWS ->open EC2
  -> instances
  -> Launch Instances
- Choose AMI-> selected the Amazon Linux 2 AMI 64-bit
- Choose Instance Type-> selected t2.micro
- Configure Instance Details
- Add Storage
- Add Security Group -> All traffic -> change Source to Anywhere
- Add key pair and download it
- Launch

Step 2:

Connecting to EC2 via ssh

- Go to EC2 Dashboard -> Instances (Running)
- Select the instance
- Click connect
- Open ssh client tab and copy command. Example:

  ssh -i "phase5selftrial.pem" ec2-user@ec2-54-226-247-9.compute-1.amazonaws.com
- Open cmd from the downloaded location of key-pair and run the command.

Step 3:

Hosting the springboot project

- After connecting to the EC2.
- To access as main user run : sudo -i
- Install git using : yum install git -y
- Install maven using : yum install maven -y
- Clone the springboot project from github using : git clone 'githublink'
- Now go to the project directory
- Then run : mvn clean package
- Now to install docker run : yum install docker -y
- Now run : systemctl start docker
- Now to create an image for docker run the command : docker build -t springbootimage .
- After image is succesfully created run the command: " docker run -p 8085:8080 -- name springbootcontainer springbootimage "
- Now open browser in any machine and go to address - http://54.226.247.9:8085

Step 4:

Using Jenkins for managing the server

- Run commands

  sudo wget -O etc/yum.repos.d/jenkins.repo http://pkg.jenkins-ci.org/redhat/jenkins.repo
  sudo rpm — import http://pkg.jenkins-ci.org/redhat/jenkins-ci.org.key
  sudo yum install jenkins -y

- Now in browser open the address -http://54.226.247.9:8080
- Now setup jenkins and add maven plugin in the configuration
- Install docker plugins
- Create an new freestyle job and change the source to git and take the file from the repo.

- In Build ->add invoke top-level maven targets
  ->make maven project to M2
  ->change its goals to package

- Now add in -> Build Execute shell
  ->add the commands to be run
  ->docker build -t springbootimage . (and)
  ->docker run -p 8085:8080 --name springbootcontainer springbootimage