**CAPSTON PROJECT**

**MyMoviePlan**

**Writeup of all Scenarios in the Application:**

**1.0 Go to official Amazon Web Services site**

https://console.aws.amazon.com/ec2

**2.0 Create New Instance**

**3.0 Connect to the Instance**

**4.0 Open Command Prompt in your machine and navigate to the path where you have downloaded the pem file**

cd Downloads

**5.0 Connect to EC2 Instance by executing the '3rd and example' commands in the ec2 instance**

chmod 400 my-movie-plan.pem

ssh -i "my-movie-plan.pem" ec2-user@ec2-54-172-237-186.compute-1.amazonaws.com

**6.0 Update the Instance Once connected using the following command**

sudo yum update -y

**7.0 After updating the instance, install Java using the following command**

sudo yum install java-1.8.0-openjdk

**7.1 Check if Java is installed or not by executing the java version command**

sudo java -version

**8.0 Install Maven**

sudo yum install maven

**8.1 Check Maven version**

sudo mvn -v

**9.0 Install Git**

sudo yum install git

**9.1 Check Git Version**

sudo git --version

**10.0 Install Jenkins. By executing the following commands one by one. For more details visit this link:**[**https://pkg.jenkins.io/redhat-stable/**](https://pkg.jenkins.io/redhat-stable/)

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

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

sudo yum install jenkins

**10.1 Start Jenkins after installing**

sudo systemctl start jenkins

**10.2 Check if Jenkins is running on port 8080 along with Public IPv4 addresses like:**

Example:

The IPv4 addresses of my instance is: 54.172.237.186

The Jenkins is running on 8080 port: 8080

Finally, use both to view jenkins: '54.172.237.186:8080'

**10.3 For the first time Jenkins will ask for password, to find the password, execute the following command in the EC2 Instance console**

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

**10.4 Install the recommended plugins in the jenkins after logging in. After installing plugins, jenkins will prompt to create an admin user, go-head and create the user**

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

**11.0 Open EC2 Instance console and Install Docker**

**11.1 Amazon Linux 2**

sudo amazon-linux-extras install docker

**11.2 Amazon Linux**

sudo yum install docker

**11.3 Start Docker**

sudo systemctl start docker

**11.4 Add the ec2-user to the docker group so you can execute Docker commands without using sudo.**

sudo usermod -a -G docker ec2-user

**11.5 The user jenkins needs to be added to the group docker. For more details, please refer:**[**https://docs.aws.amazon.com/AmazonECS/latest/developerguide/docker-basics.html**](https://docs.aws.amazon.com/AmazonECS/latest/developerguide/docker-basics.html)**,**[**https://gist.github.com/npearce/6f3c7826c7499587f00957fee62f8ee9**](https://gist.github.com/npearce/6f3c7826c7499587f00957fee62f8ee9)**,**[**https://portal.cloud303.io/forum/aws-1/question/i-want-to-install-docker-compose-on-an-amazon-linux-2-ec2-instance-9**](https://portal.cloud303.io/forum/aws-1/question/i-want-to-install-docker-compose-on-an-amazon-linux-2-ec2-instance-9)

sudo usermod -a -G docker jenkins

**11.6 Reboot the EC2 instance to pick up the new docker group permissions.**

sudo reboot

**12.0 After rebooting the EC2 Instance, execute the following commands.**

**12.1 Start Docker**

sudo systemctl start docker

**12.2 Verify that the ec2-user can run Docker commands without sudo.**

docker info

**12.3 Start Jenkins**

sudo systemctl start jenkins

**13.0 Add Maven to Jenkins Global tool Configuration**

sudo systemctl start jenkins

**14.0 Open Jenkins and create a pipeline job for MYSQL**

**15.0 Open Jenkins and create a pipeline job for Spring Boot**

**15.1 Add Maven to Jenkins**

**16.0 Open Jenkins and create a pipeline job for Angular**

**17.0 Connect all the three job and build them**

**18. Check if the app is running**

The IPv4 addresses of EC2 instance and the port on which the angular app is running: http://54.172.237.186:4040/