

IN STS CLONE BELOW CODE :

<https://github.com/DEVOPS-WITH-WEB-DEV/springboot-k8s.git>

PLAYLIST FOR OUR BOOTCAMP2 WITH HANDSON VIDEO :

<https://www.youtube.com/playlist?list=PLj-3PZIPbUVThOSi1QRqNQoTIE04KI4zN>

1. Launch an instance from an Amazon Linux 2 or Amazon Linux AMI with t2.medium
2. Connect to your instance.
3. Update the packages and package caches you have installed on your instance.

`yum update -y`

4. Install the latest Docker Engine packages.

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amazon-linux-extras install docker

OR

yum install docker -y

docker -v

5. Start the Docker service.

systemctl start docker

systemctl enable docker

6. Install Conntrack and git:

yum install conntrack -y

yum install git -y

7. Install k8

curl -LO

<https://storage.googleapis.com/minikube/releases/latest/minikube-linux-amd64>

sudo install minikube-linux-amd64 /usr/local/bin/minikube

8. Start Minikube

/usr/local/bin/minikube start --force --driver=docker

/usr/local/bin/minikube version

9. Install kubectl

```
curl -LO "https://dl.k8s.io/release/$(curl -L -s  
https://dl.k8s.io/release/stable.txt)/bin/linux/amd64/kubectl"
```

```
sudo install -o root -g root -m 0755 kubectl /usr/local/bin/kubectl
```

```
/usr/local/bin/kubectl version
```

9.1 – Clone the repo

```
cd /opt/  
git clone https://github.com/DEVOPS-WITH-WEB-DEV/springboot-  
k8s.git
```

10. Make the DB UP

```
/usr/local/bin/kubectl create -f db-deployment.yaml
```

```
/usr/local/bin/kubectl get pods
```

```
/usr/local/bin/kubectl exec -it mysql-f759455cd-2dh8m /bin/bash
```

```
mysql -u root -p root
```

```
show databases;
```

```

bash-4.2# mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 2
Server version: 5.7.42 MySQL Community Server (GPL)

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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> use database;
ERROR 1049 (42000): Unknown database 'database'
mysql> show databases;
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| performance_schema |
| singamlabs |
| sys |
+-----+
5 rows in set (0.00 sec)

```

11. yum install maven -y

12. Create the docker image

docker build -t praveensingam1994/springboot-crud-k8s:1.0 .

13. docker login [CREATE A DOCKER HUB ACCOUNT BEFORE]

Give dockeHub username and password

docker image push praveensingam1994/springboot-crud-k8s:1.0

14. /usr/local/bin/kubectl apply -f app-deployment.yaml

15. /usr/local/bin/kubectl get svc

16. /usr/local/bin/minikube ip

17. PUT PORT FORWARD

```
/usr/local/bin/kubectl port-forward --address 0.0.0.0 svc/springboot-  
crud-svc 8080:8080 &
```

[HOST PORT TO CONTAINER PORT]

```
kubectl port-forward --address 0.0.0.0 svc/{your service name}  
{external port to the Internet}:{your service port, the port your app is  
listening on in it's container}
```

for example, if my service is named store and is listening on 80

```
kubectl port-forward --address 0.0.0.0 svc/store 8888:80
```

18) JSON DATA TO BE HITTED WITH POST

1) URL POST - <http://<EC2IP>:8080/orders>

DATA TO SENT IN RAW TAB

```
{  
  "name":"shoes",  
  "qty":5,  
  "price":6999  
}
```

POST http://54.219.76.201:8080/orders

Send

Params Authorization Headers (8) **Body** Pre-request Script Tests Settings

none form-data x-www-form-urlencoded **raw** binary GraphQL **JSON**

```
1 {
2   ... "name": "watch",
3   ... "qty": 2,
4   ... "price": 3999
5 }
```

Body Cookies Headers (5) Test Results 200 OK 655 ms 210 B Save as Example

Pretty Raw Preview Visualize

```
{"id":1,"name":"watch","qty":2,"price":3999.0}
```

18.1 -> Check Database

```
singamlabs
sys
-----+-----
rows in set (0.00 sec)

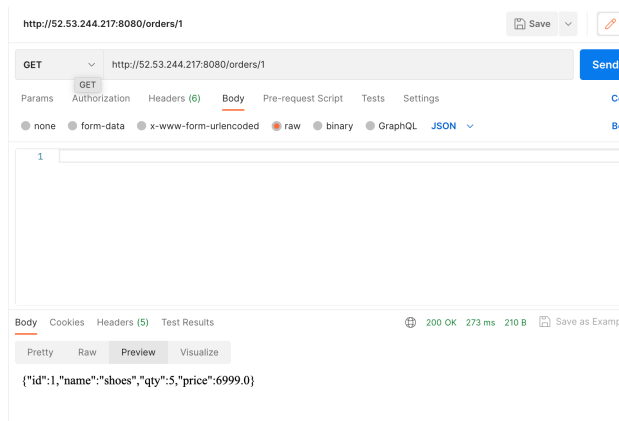
mysql> use singamlabs;
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with 'mysql> set sql_prompt_history=0'

Database changed
mysql> show tables;
+-----+
Tables_in_singamlabs |
+-----+
hibernate_sequence   |
orders_tbl           |
+-----+
rows in set (0.00 sec)

mysql> select * from orders_tbl;
+-----+-----+-----+-----+
id | name | price | qty |
+-----+-----+-----+-----+
1  | shoes | 6999  | 5   |
2  | chair | 99    | 3   |
+-----+-----+-----+-----+
rows in set (0.00 sec)
```

URL GET - <http://<EC2IP>:8080/orders/1>

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19 - FOR DASHBOARD:

IN ONE TERMINAL

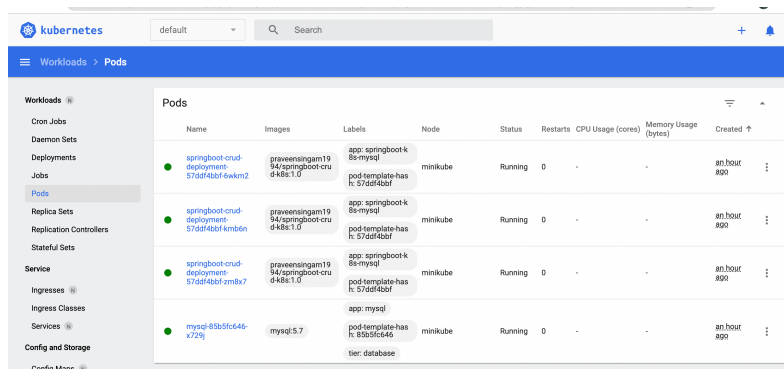
`/usr/local/bin/kubectl proxy --address='0.0.0.0' --accept-hosts='^*$',`

IN OTHER TERMINAL

`/usr/local/bin/minikube dashboard`

20 - Hit this url in browser

<http://<EC2IP>:8001/api/v1/namespaces/kubernetes-dashboard/services/http:kubernetes-dashboard:/proxy/#/pod?namespace=default>



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