TASK – 3 MINIKUBE DEPLOYMENT TASK

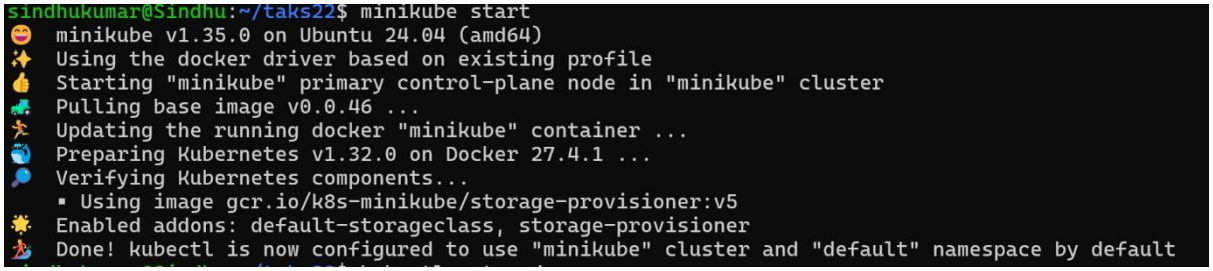
NAME:SINDHU A

ROLL N0:22CSR195

STEP 1: Start Minikube

Start the Minikube cluster using the following command:

minikube start



This initializes the Minikube cluster using Docker as the driver.

STEP 2: Install Kubectl

Since kubectl is not found,install it with the following command: sudo

snap install kubectl –classic

Alternatively, you can download it using curl:

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

STEP 3: Verify kubectl Installation

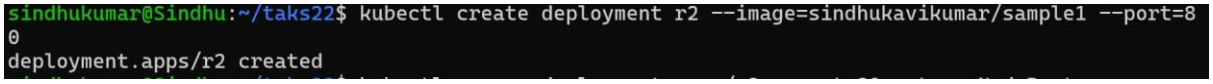
Check the client version to confirm successful installation:

Kubectl version -client

STEP 4: Create a Deployment

Create a deployment named `r2` with the image ‘sindhukavikumar/sample1’: kubectl

create deployment r2 --image=sindhukavikumar/sample1 --port=80



STEP 5: Expose the Deployment

Expose the deployment as a NodePort service: kubectl
expose deployment r2 --port=80 --type=NodePort

```
sindhukumar@Sindhu:~/taks22$ kubectl expose deployment.apps/r2 --port=80 --type=NodePort
service/r2 exposed
```

STEP 6: Verify the Pod

Check the running pods:

kubectl get pods

Step 7: Access the Service

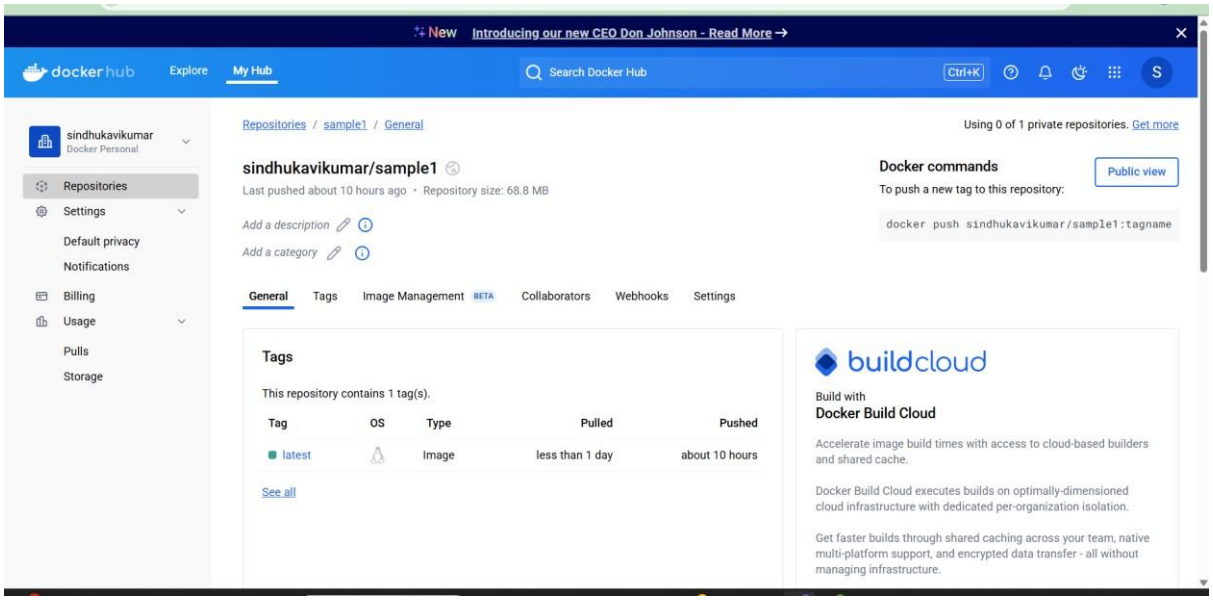
Expose the service using Minikube and get the URL:

minikube service r2

```
sindhukumar@Sindhu:~/taks22$ minikube service r2
|-----------|------|-------------|--------------------------|
| NAMESPACE | NAME | TARGET PORT |            URL           |
|-----------|------|-------------|--------------------------|
| default   | r2   |          80 | http://192.168.49.2:30485 |
|-----------|------|-------------|--------------------------|
🏃  Starting tunnel for service r2.
|-----------|------|-------------|------------------------|
| NAMESPACE | NAME | TARGET PORT |          URL           |
|-----------|------|-------------|------------------------|
| default   | r2   |             | http://127.0.0.1:46711 |
|-----------|------|-------------|------------------------|
🎉  Opening service default/r2 in default browser...
👉  http://127.0.0.1:46711
❗  Because you are using a Docker driver on linux, the terminal needs to be open to run it.
```

STEP 8: Output in the Web Browser

DockerHub: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S
sindhukavikumar
Docker Personal
Repositories
Settings
Default privacy
Notifications
Billing
Usage
Pulls
Storage
Repositories / sample1 / General
Using 0 of 1 private repositories. Get more
sindhukavikumar/sample1
Last pushed about 10 hours ago • Repository size: 68.8 MB
Add a description
Add a category
Docker commands
Public view
To push a new tag to this repository:
docker push sindhukavikumar/sample1:tagname
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Tags
Image Management BETA
Collaborators
Webhooks
Settings
Tags
This repository contains 1 tag(s).
Tag
OS
Type
Pulled
Pushed
latest
Image
less than 1 day
about 10 hours
See all
buildcloud
Build with
Docker Build Cloud
Accelerate image build times with access to cloud-based builders and shared cache.
Docker Build Cloud executes builds on optimally-dimensioned cloud infrastructure with dedicated per-organization isolation.
Get faster builds through shared caching across your team, native multi-platform support, and encrypted data transfer - all without managing infrastructure.