DEVOPS

ASSIGNMENT 4

STEPS:

Step 1: Start Minikube minikube start --driver=docker --force Step 2: Create a Deployment kubectl create deployment webapp --image=nginx --port=80 Step 3: Expose the Deployment as a Service kubectl expose deployment webapp --type=NodePort --port=80 --target-port=80 Step 4: Verify the Running Pods kubectl get pod

Step 5: Verify the Service kubectl

get svc

Step 6: Open the Service in a Web Browser

minikube service webapp Step 7: Test the

Service Using curl curl

http://192.168.49.2:31432 Step 8:

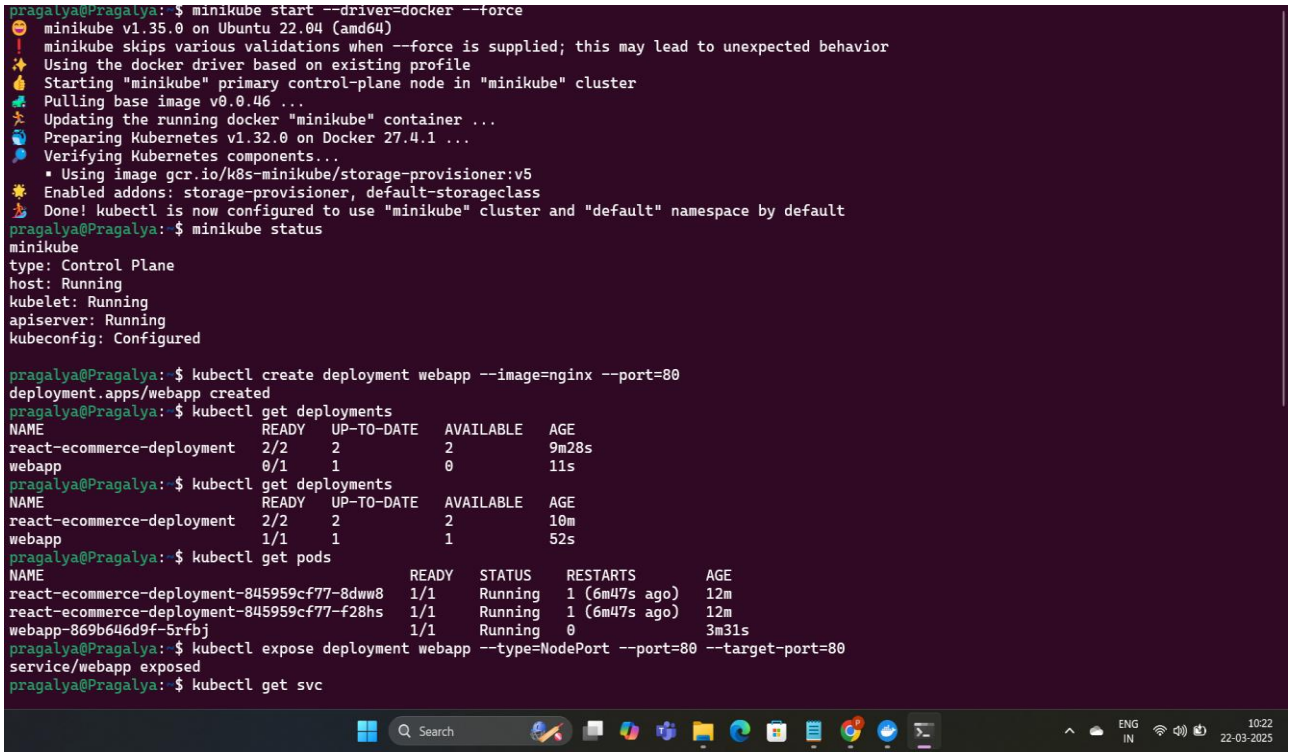
Continuously Monitor the Pods watch

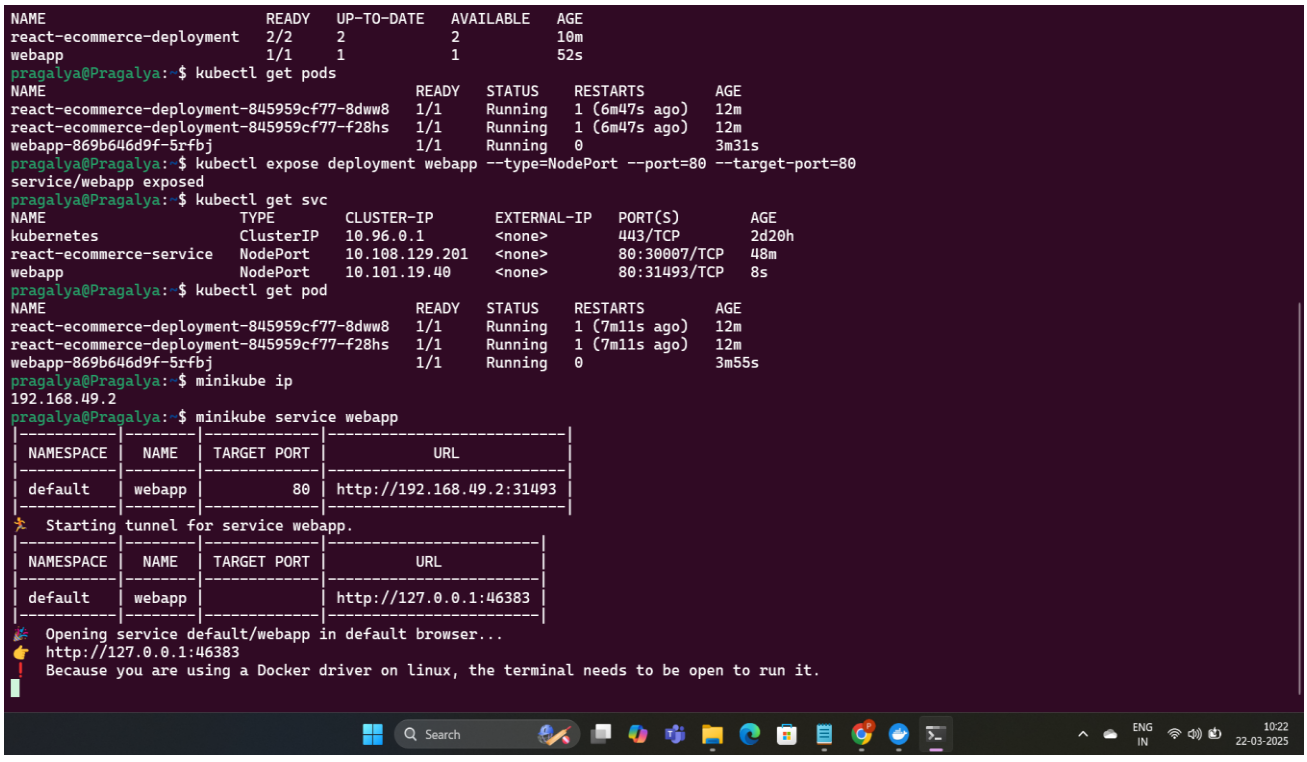
kubectl get pod

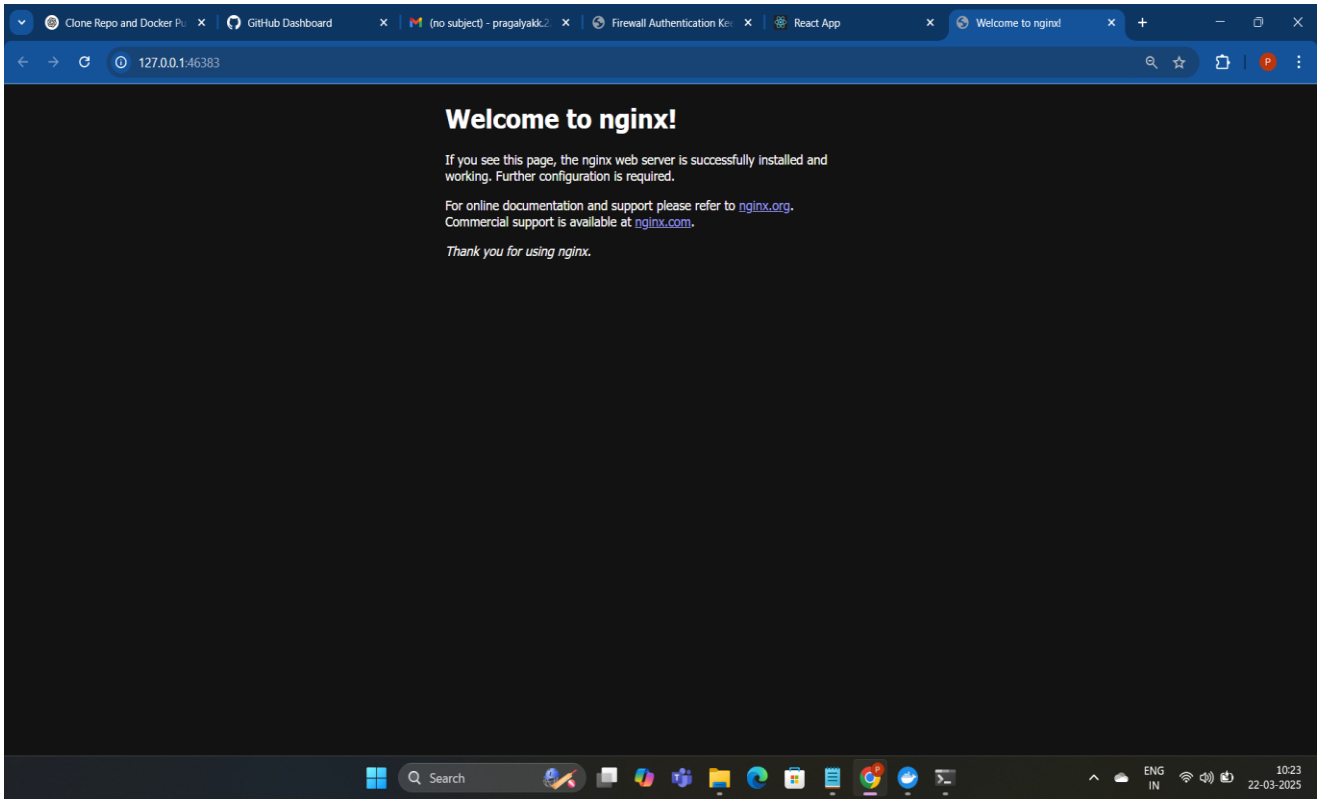
Step 9: Continuously Monitor Pod Logs watch

kubectl logs webapp-869b646d9f-b4hgr

OUTPUT:


pragalya@Pragalya:~$ minikube start --driver=docker --force
minikube v1.35.0 on Ubuntu 22.04 (amd64)
minikube skips various validations when --force is supplied; this may lead to unexpected behavior
Using the docker driver based on existing profile
Starting "minikube" primary control-plane node in "minikube" cluster
Pulling base image v0.0.46 ...
Updating the running docker "minikube" container ...
Preparing Kubernetes v1.32.0 on Docker 27.4.1 ...
Verifying Kubernetes components...
▪ Using image gcr.io/k8s-minikube/storage-provisioner:v5
Enabled addons: storage-provisioner, default-storageclass
Done! kubectl is now configured to use "minikube" cluster and "default" namespace by default
pragalya@Pragalya:~$ minikube status
minikube
type: Control Plane
host: Running
kubelet: Running
apiserver: Running
kubeconfig: Configured
pragalya@Pragalya:~$ kubectl create deployment webapp --image=nginx --port=80
deployment.apps/webapp created
pragalya@Pragalya:~$ kubectl get deployments
NAME READY UP-TO-DATE AVAILABLE AGE
react-ecommerce-deployment 2/2 2 2 9m28s
webapp 0/1 1 0 11s
pragalya@Pragalya:~$ kubectl get deployments
NAME READY UP-TO-DATE AVAILABLE AGE
react-ecommerce-deployment 2/2 2 2 10m
webapp 1/1 1 1 52s
pragalya@Pragalya:~$ kubectl get pods
NAME READY STATUS RESTARTS AGE
react-ecommerce-deployment-845959cf77-8dww8 1/1 Running 1 (6m47s ago) 12m
react-ecommerce-deployment-845959cf77-f28hs 1/1 Running 1 (6m47s ago) 12m
webapp-869b646d9f-5rfbj 1/1 Running 0 3m31s
pragalya@Pragalya:~$ kubectl expose deployment webapp --type=NodePort --port=80 --target-port=80
service/webapp exposed
pragalya@Pragalya:~$ kubectl get svc
Search
ENG
IN
10:22
22-03-2025


NAME READY UP-TO-DATE AVAILABLE AGE
react-ecommerce-deployment 2/2 2 2 10m
webapp 1/1 1 1 52s
pragalya@Pragalya:~$ kubectl get pods
NAME READY STATUS RESTARTS AGE
react-ecommerce-deployment-845959cf77-8dww8 1/1 Running 1 (6m47s ago) 12m
react-ecommerce-deployment-845959cf77-f28hs 1/1 Running 1 (6m47s ago) 12m
webapp-869b646d9f-5rfbj 1/1 Running 0 3m31s
pragalya@Pragalya:~$ kubectl expose deployment webapp --type=NodePort --port=80 --target-port=80
service/webapp exposed
pragalya@Pragalya:~$ kubectl get svc
NAME TYPE CLUSTER-IP EXTERNAL-IP PORT(S) AGE
kubernetes ClusterIP 10.96.0.1 <none> 443/TCP 2d20h
react-ecommerce-service NodePort 10.108.129.201 <none> 80:30007/TCP 48m
webapp NodePort 10.101.19.40 <none> 80:31493/TCP 8s
pragalya@Pragalya:~$ kubectl get pod
NAME READY STATUS RESTARTS AGE
react-ecommerce-deployment-845959cf77-8dww8 1/1 Running 1 (7m11s ago) 12m
react-ecommerce-deployment-845959cf77-f28hs 1/1 Running 1 (7m11s ago) 12m
webapp-869b646d9f-5rfbj 1/1 Running 0 3m55s
pragalya@Pragalya:~$ minikube ip
192.168.49.2
pragalya@Pragalya:~$ minikube service webapp
| NAMESPACE | NAME | TARGET PORT | URL |
| default | webapp | 80 | http://192.168.49.2:31493 |
Starting tunnel for service webapp.
| NAMESPACE | NAME | TARGET PORT | URL |
| default | webapp | | http://127.0.0.1:46383 |
Opening service default/webapp in default browser...
http://127.0.0.1:46383
Because you are using a Docker driver on linux, the terminal needs to be open to run it.
Search
ENG
IN
10:22
22-03-2025


Clone Repo and Docker Pu
GitHub Dashboard
(no subject) - pragalyakk2
Firewall Authentication Ke
React App
Welcome to nginx!
127.0.0.1:46383
Welcome to nginx!
If you see this page, the nginx web server is successfully installed and working. Further configuration is required.
For online documentation and support please refer to nginx.org.
Commercial support is available at nginx.com.
Thank you for using nginx.
Search
ENG
IN
10:23
22-03-2025