Kubernetes Deployment using Minikube

Prerequisites

- Minikube installed
- Kubectl installed
- Docker installed

Step 1: Start Minikube

minikube start

Step 2: Verify Minikube Status

minikube status

Step 3: Pull Docker Image

Ensure the Docker image is available locally.

docker pull saran006/test1

Step 4: Create a Kubernetes Deployment

kubectl create deployment test --image=saran006/test1

Step 5: Check Deployment Status

kubectl get pods

Step 6: Expose the Deployment as a Service

kubectl expose deployment test --type=NodePort --port=80

Step 7: Get the Minikube Service URL

minikube service test --url

Step 8: Access the Application

Copy the URL from the previous command and open it in a web browser.

Step 9: Verify Running Services

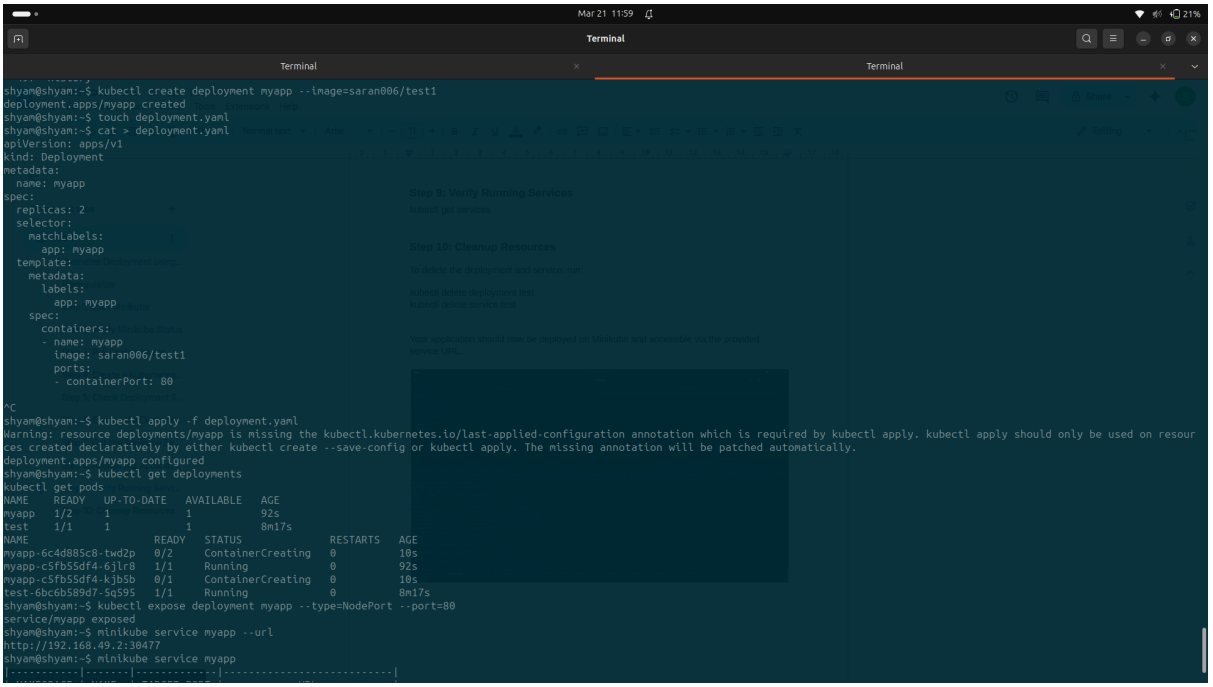
kubectl get services

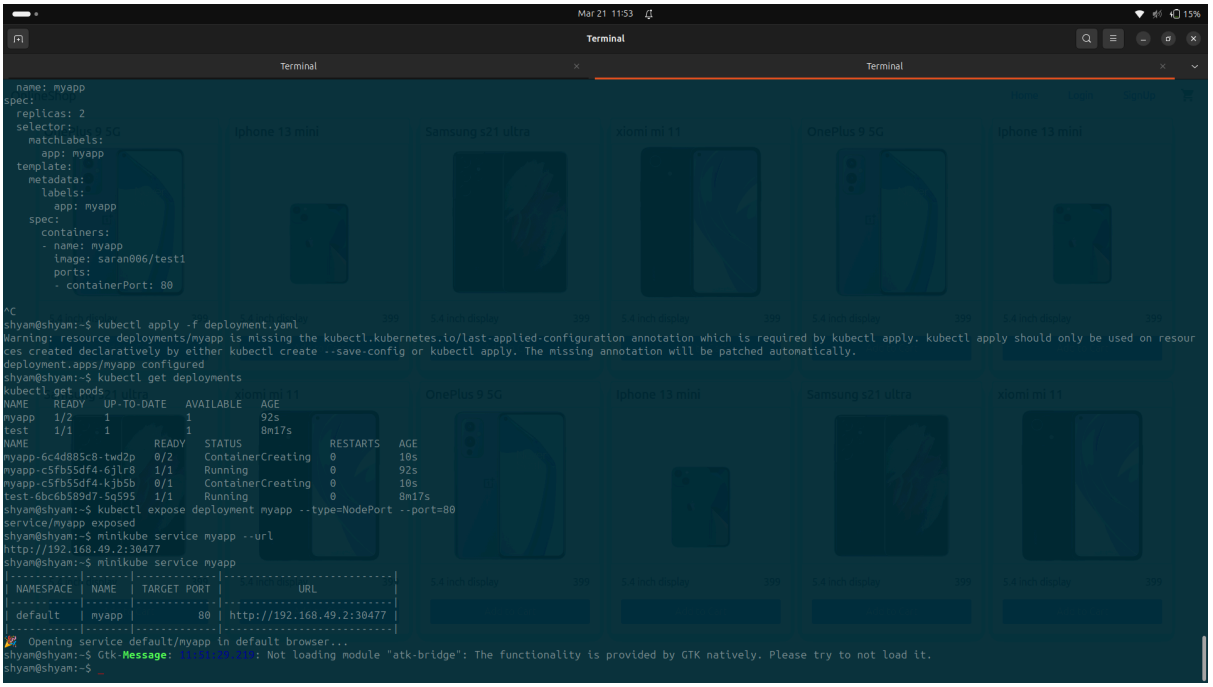
Step 10: Cleanup Resources

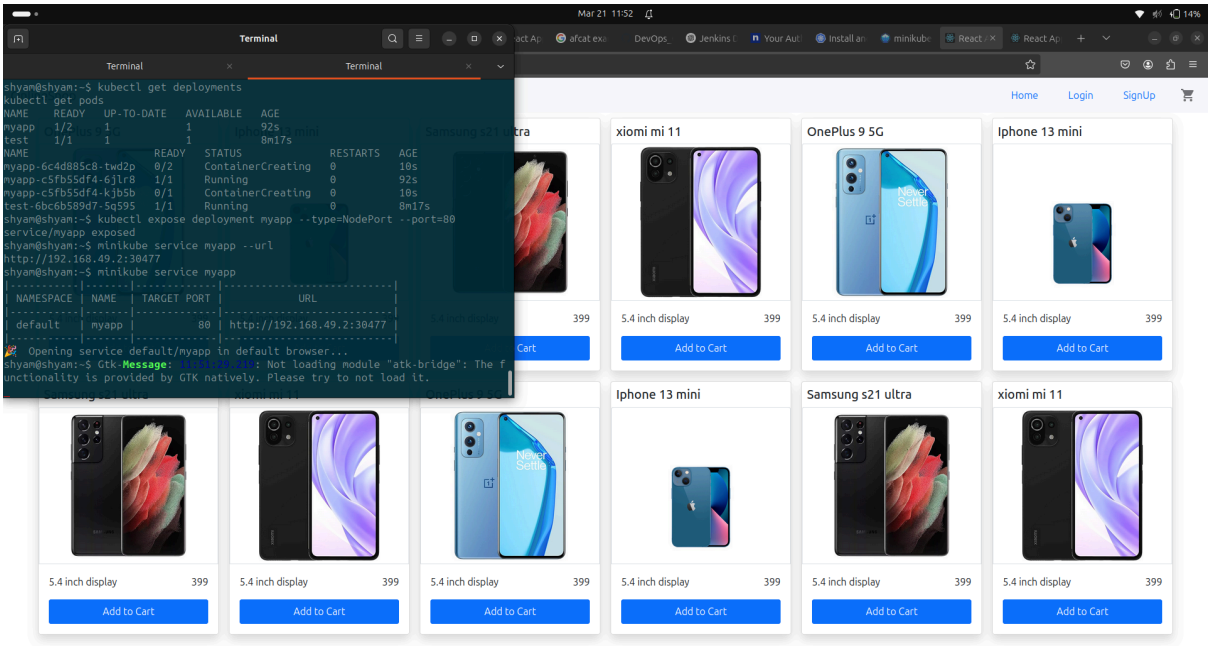
To delete the deployment and service, run:

kubectl delete deployment test
kubectl delete service test

Your application should now be deployed on Minikube and accessible via the provided service URL.




Mar 21 11:53
Terminal
Terminal
Terminal
name: myapp
spec:
replicas: 2
selector:
matchLabels:
app: myapp
template:
metadata:
labels:
app: myapp
spec:
containers:
- name: myapp
image: saran006/test1
ports:
- containerPort: 80
^C
shyam@shyam:~$ kubectl apply -f deployment.yaml
Warning: resource deployments/myapp is missing the kubectl.kubernetes.io/last-applied-configuration annotation which is required by kubectl apply. kubectl apply should only be used on resources created declaratively by either kubectl create --save-config or kubectl apply. The missing annotation will be patched automatically.
deployment.apps/myapp configured
shyam@shyam:~$ kubectl get deployments
kubectl get pods
NAME READY UP-TO-DATE AVAILABLE AGE
myapp 1/2 1 1 92s
test 1/1 1 1 8m17s
NAME READY STATUS RESTARTS AGE
myapp-6c4d885c8-twd2p 0/2 ContainerCreating 0 10s
myapp-c5fb55df4-6jlr8 1/1 Running 0 92s
myapp-c5fb55df4-kjb5b 0/1 ContainerCreating 0 10s
test-6bc6b589d7-5q595 1/1 Running 0 8m17s
shyam@shyam:~$ kubectl expose deployment myapp --type=NodePort --port=80
service/myapp exposed
shyam@shyam:~$ minikube service myapp --url
http://192.168.49.2:30477
shyam@shyam:~$ minikube service myapp
| NAMESPACE | NAME | TARGET PORT | URL |
| default | myapp | 80 | http://192.168.49.2:30477 |
Opening service default/myapp in default browser...
shyam@shyam:~$ Gtk-Message: 11:51:29.219: Not loading module "atk-bridge": The functionality is provided by GTK natively. Please try to not load it.
shyam@shyam:~$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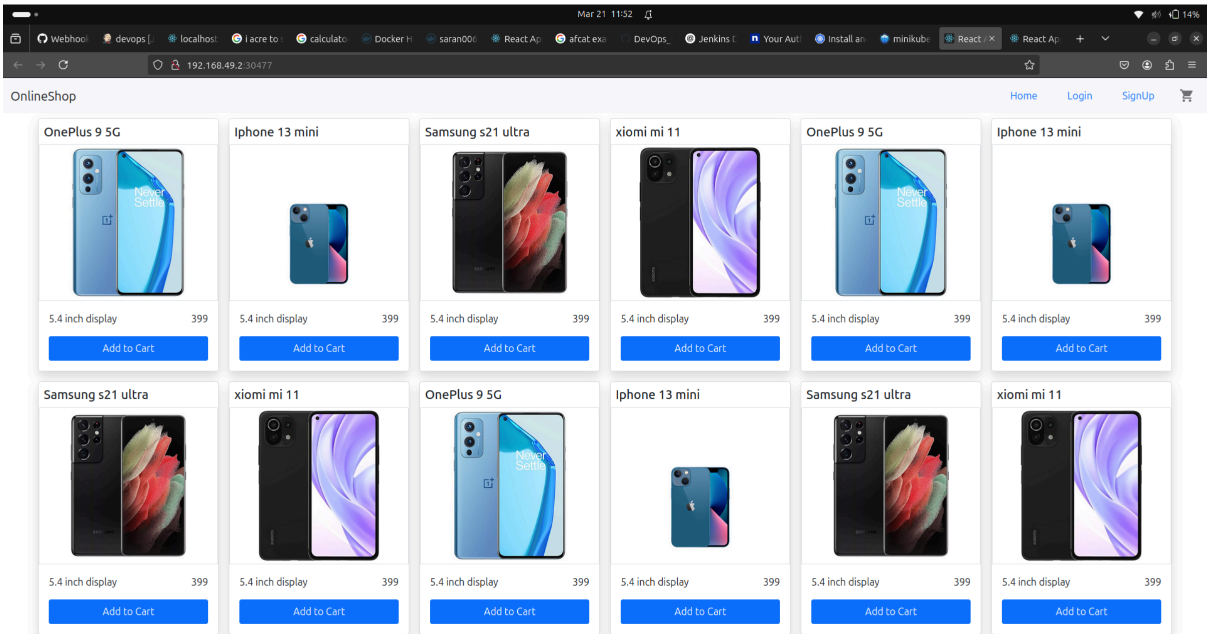
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