TASK 4

Step 1: Start Minikube

minikube start --driver=docker --force

Step 2: Create a Deployment

kubectl create deployment webapp --image=nginx --port=80,

If we get the error like

error: failed to create deployment: Post "https://192.168.58.2:8443/apis/apps/v1/namespaces/default/deployments?fieldManager=kubectl-create&fieldValidation=Strict": dial tcp 192.168.58.2:8443: connect: no route to host

Then check whether docker is running by giving the command,

docker ps -a

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES

9496ccc322c0 gcr.io/k8s-minikube/kicbase:v0.0.46 "/usr/local/bin/entr…" 12 hours ago **Exited (137) 11 hours ago** minikube

a696b191069d postgres:alpine "docker-entrypoint.s…" 38 hours ago Up 13 minutes 0.0.0.0:5432->5432/tcp, [::]:5432->5432/tcp t2_db_1

4d98193718be redis:alpine "docker-entrypoint.s…" 38 hours ago Up 13 minutes 6379/tcp t2_redis_1

Now the docker is in the exited state.Restart it,

docker start <container_name>

docker start 9496ccc322c0

Now check whether it is running,

by giving the command

docker ps -a

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES

9496ccc322c0 gcr.io/k8s-minikube/kicbase:v0.0.46 "/usr/local/bin/entr…" 12 hours ago **Up 12 seconds** 127.0.0.1:32768->22/tcp, 127.0.0.1:32769->2376/tcp, 127.0.0.1:32770->5000/tcp, 127.0.0.1:32771->8443/tcp, 127.0.0.1:32772->32443/tcp minikube

a696b191069d postgres:alpine "docker-entrypoint.s…" 38 hours ago Up 14 minutes 0.0.0.0:5432->5432/tcp, [::]:5432->5432/tcp t2_db_1

4d98193718be redis:alpine "docker-entrypoint.s…" 38 hours ago Up 14 minutes 6379/tcp

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

If we get the ImagePull error

NAME READY STATUS RESTARTS AGE

react-ecommerce-deployment-849768b4c6-9gtx7 1/1 Running 1 (10h ago) 11h

react-ecommerce-deployment-849768b4c6-qgpdk 1/1 Running 1 (10h ago) 11h

webapp-869b646d9f-48x7v 0/1 **ErrImagePull** 0 2m24s

Then delete the pod by typing,

kubectl delete pod webapp-869b646d9f-48x7v

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

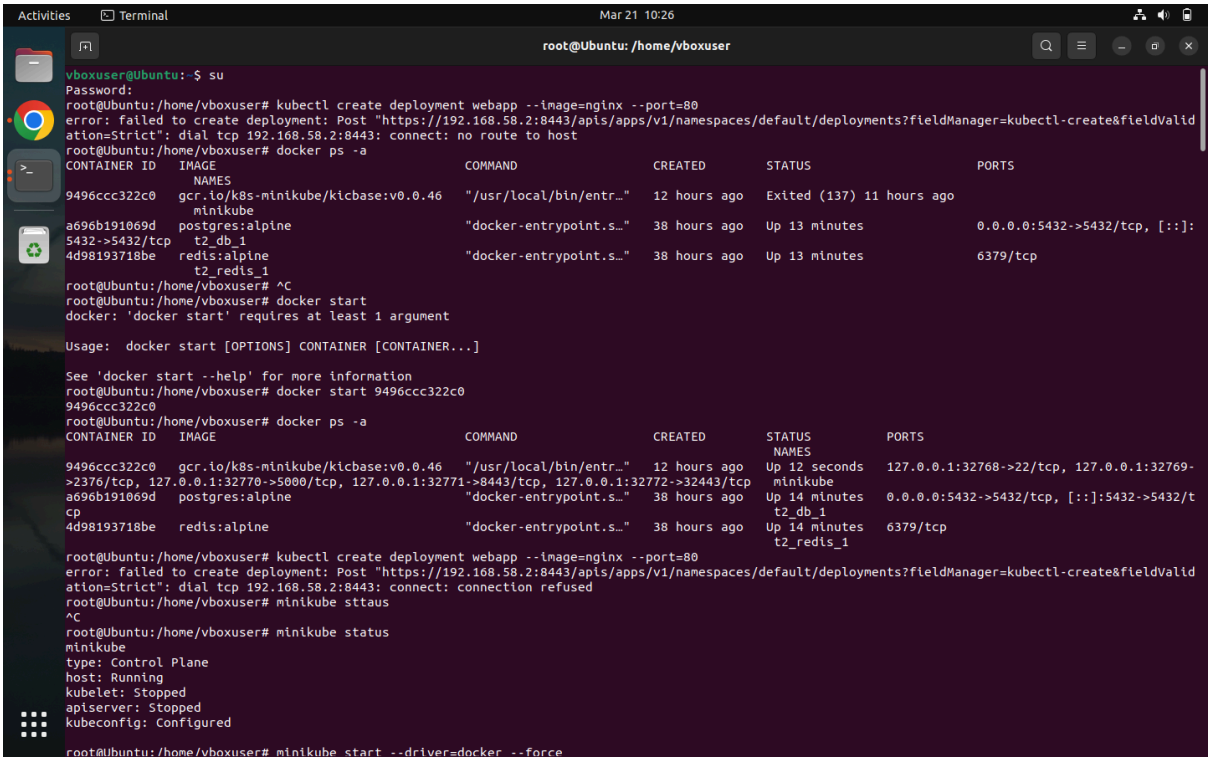
curl http://192.168.49.2:32172

Step 8: Continuously Monitor the Pods

watch kubectl get pod

Step 9: Continuously Monitor Pod Logs

watch kubectl logs webapp-869b646d9f-5nlp5


Activities
Terminal
Mar 21 10:26
root@Ubuntu: /home/vboxuser
vboxuser@Ubuntu:~$ su
Password:
root@Ubuntu:/home/vboxuser# kubectl create deployment webapp --image=nginx --port=80
error: failed to create deployment: Post "https://192.168.58.2:8443/apis/apps/v1/namespaces/default/deployments?fieldManager=kubectl-create&fieldValidation=Strict": dial tcp 192.168.58.2:8443: connect: no route to host
root@Ubuntu:/home/vboxuser# docker ps -a
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES
9496ccc322c0 gcr.io/k8s-minikube/kicbase:v0.0.46 "/usr/local/bin/entr…" 12 hours ago Exited (137) 11 hours ago minikube
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4d98193718be redis:alpine "docker-entrypoint.s…" 38 hours ago Up 13 minutes 6379/tcp t2_redis_1
root@Ubuntu:/home/vboxuser# ^C
root@Ubuntu:/home/vboxuser# docker start
docker: 'docker start' requires at least 1 argument
Usage: docker start [OPTIONS] CONTAINER [CONTAINER...]
See 'docker start --help' for more information
root@Ubuntu:/home/vboxuser# docker start 9496ccc322c0
9496ccc322c0
root@Ubuntu:/home/vboxuser# docker ps -a
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES
9496ccc322c0 gcr.io/k8s-minikube/kicbase:v0.0.46 "/usr/local/bin/entr…" 12 hours ago Up 12 seconds 127.0.0.1:32768->22/tcp, 127.0.0.1:32769->2376/tcp, 127.0.0.1:32770->5000/tcp, 127.0.0.1:32771->8443/tcp, 127.0.0.1:32772->32443/tcp minikube
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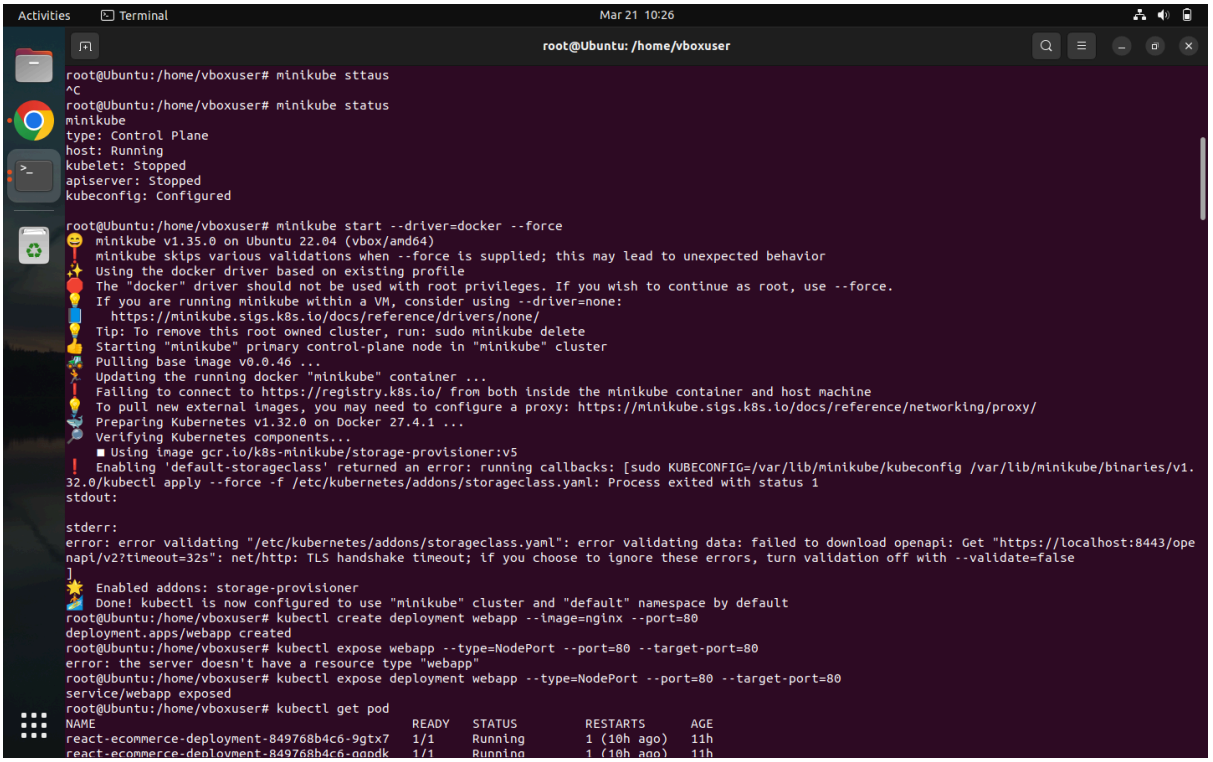
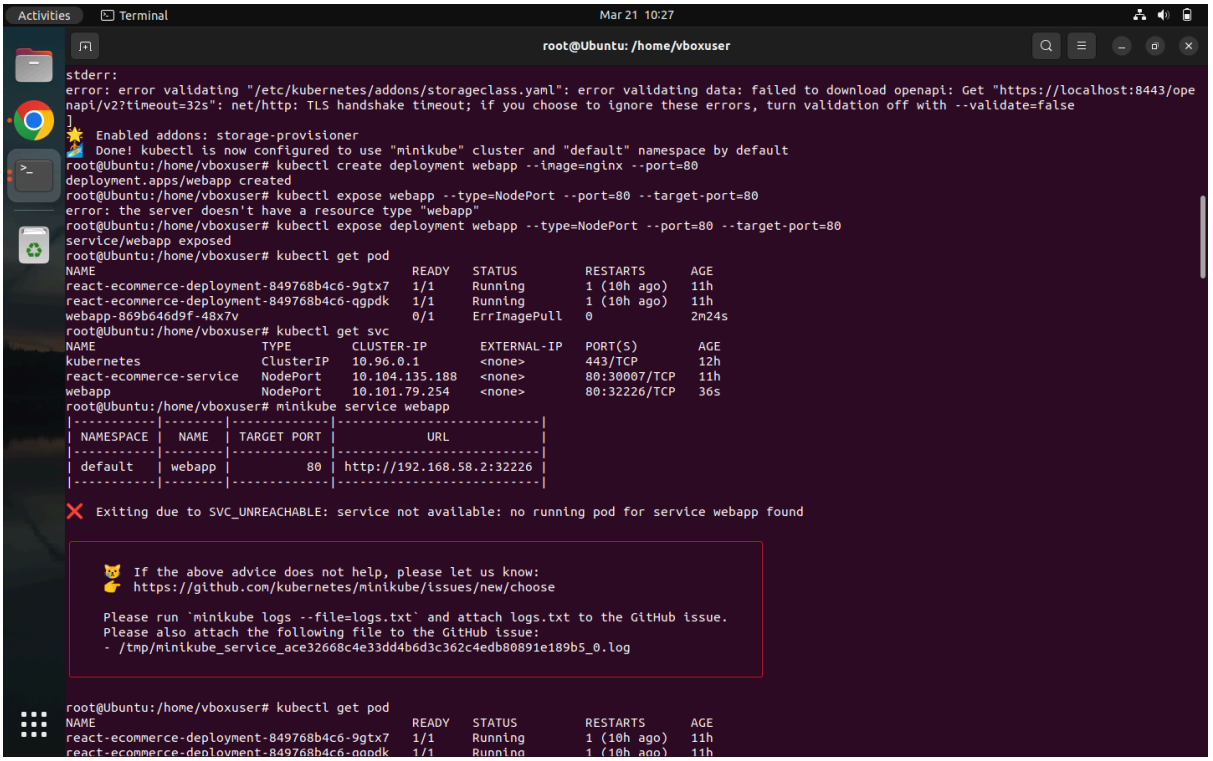
root@Ubuntu:/home/vboxuser# kubectl create deployment webapp --image=nginx --port=80
error: failed to create deployment: Post "https://192.168.58.2:8443/apis/apps/v1/namespaces/default/deployments?fieldManager=kubectl-create&fieldValidation=Strict": dial tcp 192.168.58.2:8443: connect: connection refused
root@Ubuntu:/home/vboxuser# minikube sttaus
^C
root@Ubuntu:/home/vboxuser# minikube status
minikube
type: Control Plane
host: Running
kubelet: Stopped
apiserver: Stopped
kubeconfig: Configured
root@Ubuntu:/home/vboxuser# minikube start --driver=docker --force


Activities
Terminal
Mar 21 10:26
root@Ubuntu: /home/vboxuser
root@Ubuntu:/home/vboxuser# minikube sttaus
^C
root@Ubuntu:/home/vboxuser# minikube status
minikube
type: Control Plane
host: Running
kubelet: Stopped
apiserver: Stopped
kubeconfig: Configured
root@Ubuntu:/home/vboxuser# minikube start --driver=docker --force
minikube v1.35.0 on Ubuntu 22.04 (vbox/amd64)
minikube skips various validations when --force is supplied; this may lead to unexpected behavior
Using the docker driver based on existing profile
The "docker" driver should not be used with root privileges. If you wish to continue as root, use --force.
If you are running minikube within a VM, consider using --driver=none:
https://minikube.sigs.k8s.io/docs/reference/drivers/none/
Tip: To remove this root owned cluster, run: sudo minikube delete
Starting "minikube" primary control-plane node in "minikube" cluster
Pulling base image v0.0.46 ...
Updating the running docker "minikube" container ...
Failing to connect to https://registry.k8s.io/ from both inside the minikube container and host machine
To pull new external images, you may need to configure a proxy: https://minikube.sigs.k8s.io/docs/reference/networking/proxy/
Preparing Kubernetes v1.32.0 on Docker 27.4.1 ...
Verifying Kubernetes components...
Using image gcr.io/k8s-minikube/storage-provisioner:v5
Enabling 'default-storageclass' returned an error: running callbacks: [sudo KUBECONFIG=/var/lib/minikube/kubeconfig /var/lib/minikube/binaries/v1.32.0/kubectl apply --force -f /etc/kubernetes/addons/storageclass.yaml: Process exited with status 1
stdout:
stderr:
error: error validating "/etc/kubernetes/addons/storageclass.yaml": error validating data: failed to download openapi: Get "https://localhost:8443/openapi/v2?timeout=32s": net/http: TLS handshake timeout; if you choose to ignore these errors, turn validation off with --validate=false
]
Enabled addons: storage-provisioner
Done! kubectl is now configured to use "minikube" cluster and "default" namespace by default
root@Ubuntu:/home/vboxuser# kubectl create deployment webapp --image=nginx --port=80
deployment.apps/webapp created
root@Ubuntu:/home/vboxuser# kubectl expose webapp --type=NodePort --port=80 --target-port=80
error: the server doesn't have a resource type "webapp"
root@Ubuntu:/home/vboxuser# kubectl expose deployment webapp --type=NodePort --port=80 --target-port=80
service/webapp exposed
root@Ubuntu:/home/vboxuser# kubectl get pod
NAME READY STATUS RESTARTS AGE
react-ecommerce-deployment-849768b4c6-9gtx7 1/1 Running 1 (10h ago) 11h
react-ecommerce-deployment-849768b4c6-qqpdk 1/1 Running 1 (10h ago) 11h


Activities
Terminal
Mar 21 10:27
root@Ubuntu: /home/vboxuser
stderr:
error: error validating "/etc/kubernetes/addons/storageclass.yaml": error validating data: failed to download openapi: Get "https://localhost:8443/openapi/v2?timeout=32s": net/http: TLS handshake timeout; if you choose to ignore these errors, turn validation off with --validate=false
]
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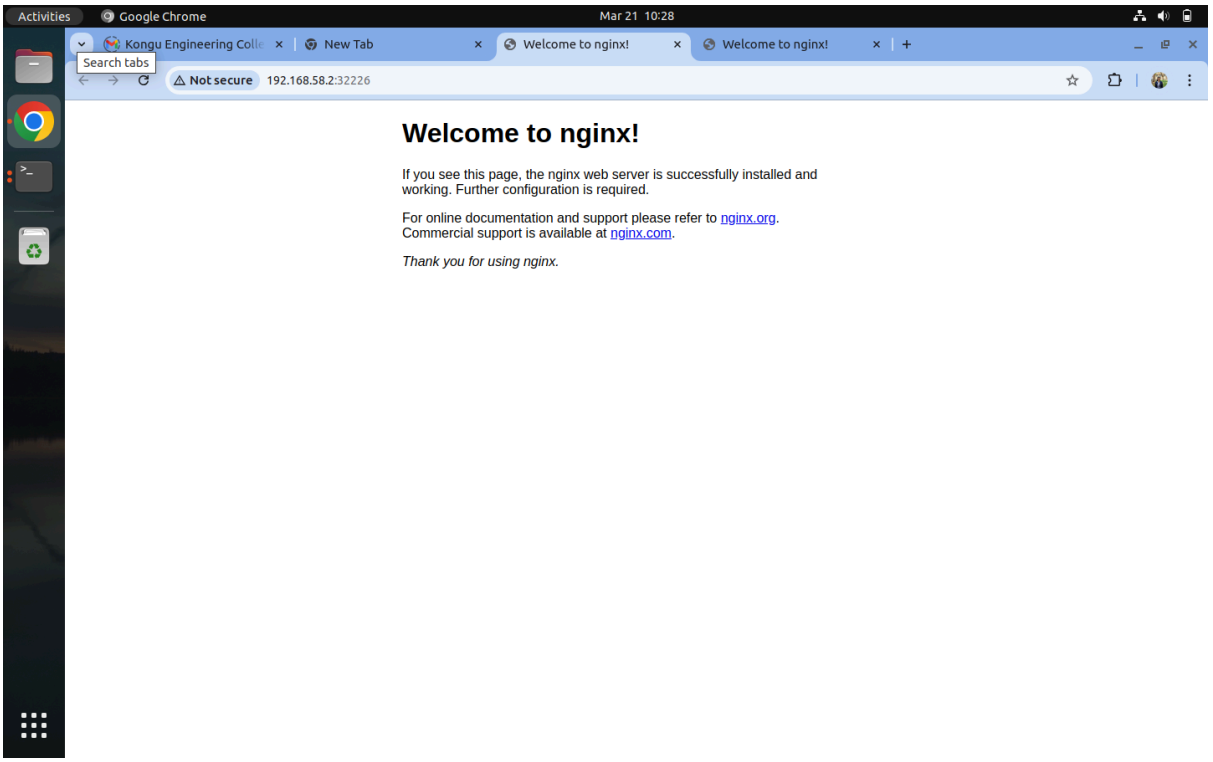
Done! kubectl is now configured to use "minikube" cluster and "default" namespace by default
root@Ubuntu:/home/vboxuser# kubectl create deployment webapp --image=nginx --port=80
deployment.apps/webapp created
root@Ubuntu:/home/vboxuser# kubectl expose webapp --type=NodePort --port=80 --target-port=80
error: the server doesn't have a resource type "webapp"
root@Ubuntu:/home/vboxuser# kubectl expose deployment webapp --type=NodePort --port=80 --target-port=80
service/webapp exposed
root@Ubuntu:/home/vboxuser# kubectl get pod
NAME READY STATUS RESTARTS AGE
react-ecommerce-deployment-849768b4c6-9gtx7 1/1 Running 1 (10h ago) 11h
react-ecommerce-deployment-849768b4c6-qgpdk 1/1 Running 1 (10h ago) 11h
webapp-869b646d9f-48x7v 0/1 ErrImagePull 0 2m24s
root@Ubuntu:/home/vboxuser# kubectl get svc
NAME TYPE CLUSTER-IP EXTERNAL-IP PORT(S) AGE
kubernetes ClusterIP 10.96.0.1 <none> 443/TCP 12h
react-ecommerce-service NodePort 10.104.135.188 <none> 80:30007/TCP 11h
webapp NodePort 10.101.79.254 <none> 80:32226/TCP 36s
root@Ubuntu:/home/vboxuser# minikube service webapp
| NAMESPACE | NAME | TARGET PORT | URL |
| default | webapp | 80 | http://192.168.58.2:32226 |
Exiting due to SVC_UNREACHABLE: service not available: no running pod for service webapp found
If the above advice does not help, please let us know:
https://github.com/kubernetes/minikube/issues/new/choose
Please run `minikube logs --file=logs.txt` and attach logs.txt to the GitHub issue.
Please also attach the following file to the GitHub issue:
- /tmp/minikube_service_ace32668c4e33dd4b6d3c362c4edb80891e189b5_0.log
root@Ubuntu:/home/vboxuser# kubectl get pod
NAME READY STATUS RESTARTS AGE
react-ecommerce-deployment-849768b4c6-9gtx7 1/1 Running 1 (10h ago) 11h


Activities
Google Chrome
Mar 21 10:28
Search tabs
Kongu Engineering Colle
New Tab
Welcome to nginx!
Welcome to nginx!
Not secure
192.168.58.2:32226
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.