DEPLOY A WEB APPICATION USING KUBERNETES

1. **Start Minikube**:
   - Run `minikube start` to start your local Kubernetes cluster.
2. **Navigate to the Deployment Directory**:
   - Go to the directory containing your YAML files:

     ```
     bash
     CopyEdit
     cd ~/Devops/kubernetes/deploy/yaml/apache_phpadmin_mysql/PHPMYADMIN_MYSQL
     ```
3. **Apply Namespace**:
   - Apply the `namespace.yaml` configuration:

     ```
     bash
     CopyEdit
     kubectl apply -f namespace.yaml
     ```
4. **Deploy Resources in the Namespace**:
   - Apply the resources in the `lampdemo` namespace:

     ```
     bash
     CopyEdit
     kubectl apply -n lampdemo -k ./
     ```
5. **Check Pods**:
   - Verify that the pods are running:

     ```
     bash
     CopyEdit
     kubectl get po -n lampdemo
     ```
6. **Check Services**:
   - Check the services to get the external IP and port for access:

     ```
     bash
     CopyEdit
     kubectl get svc -n lampdemo
     ```

7. **Access the Service**:

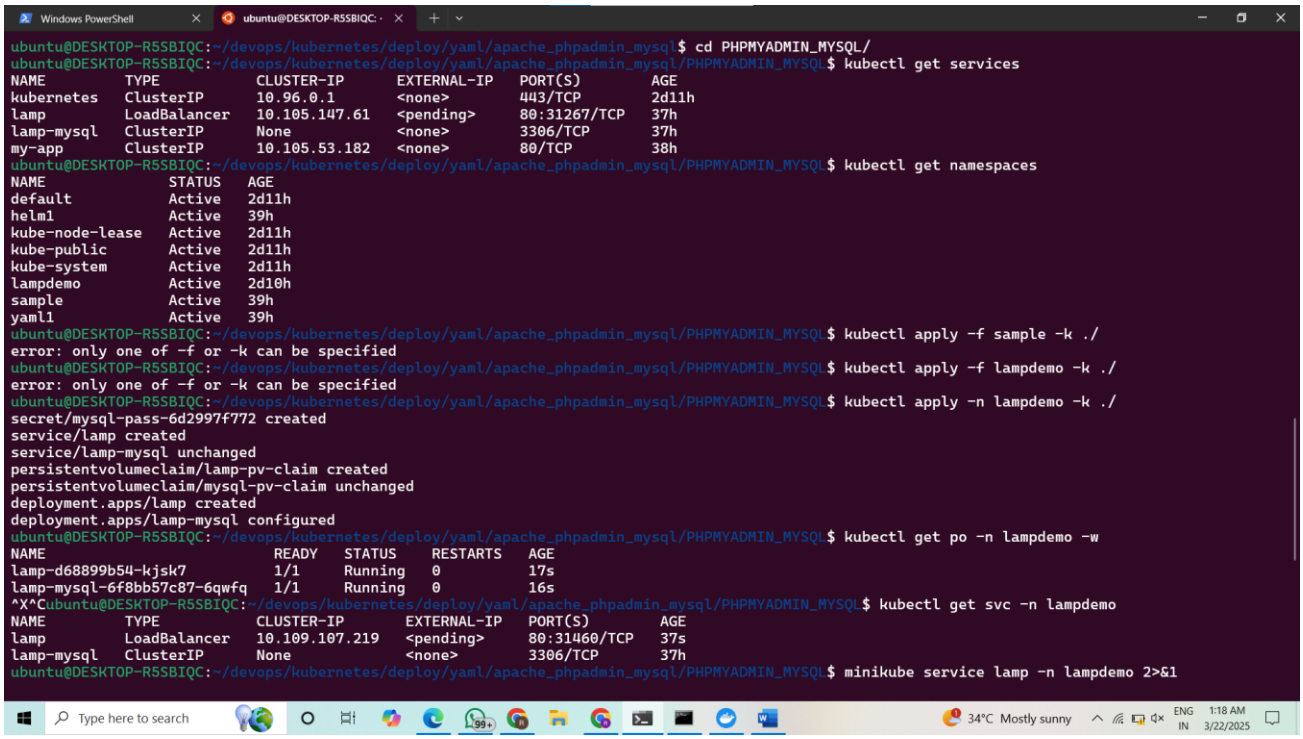
   - Open the service URL in your browser:

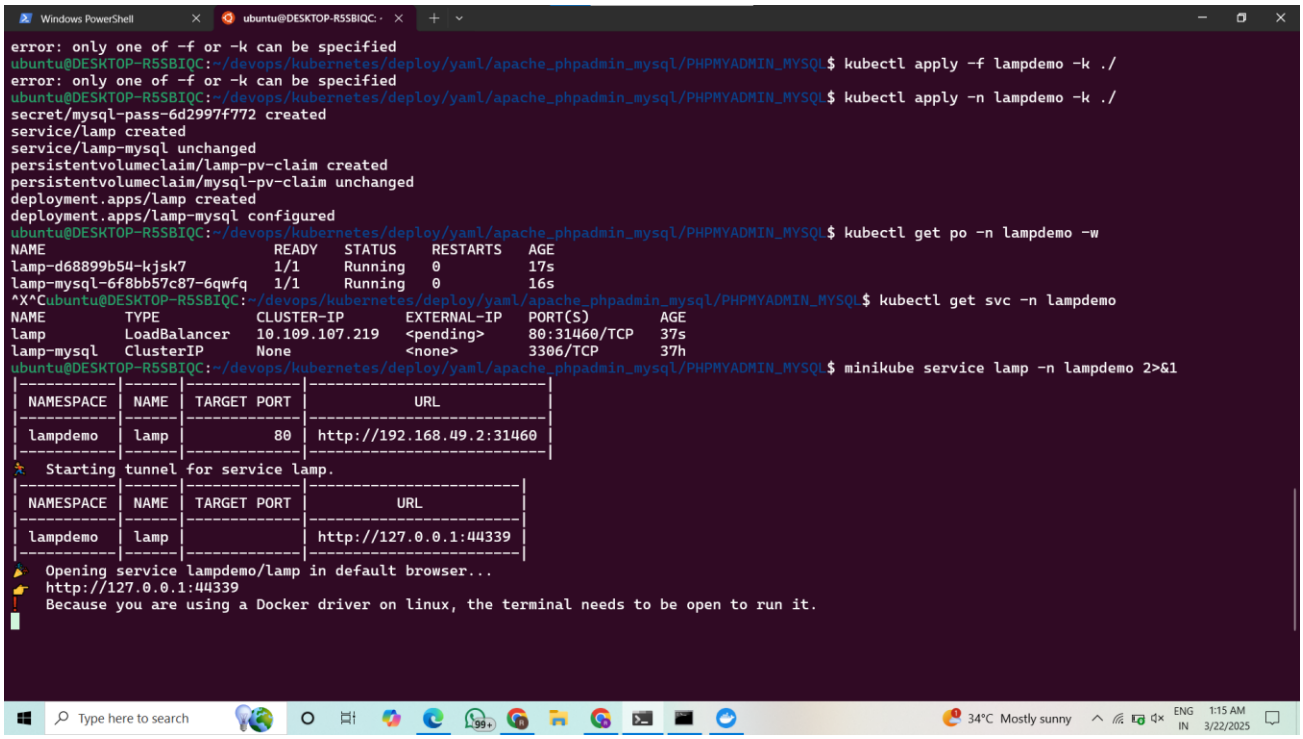
     bash
     CopyEdit
     minikube service lamp -n lampdemo

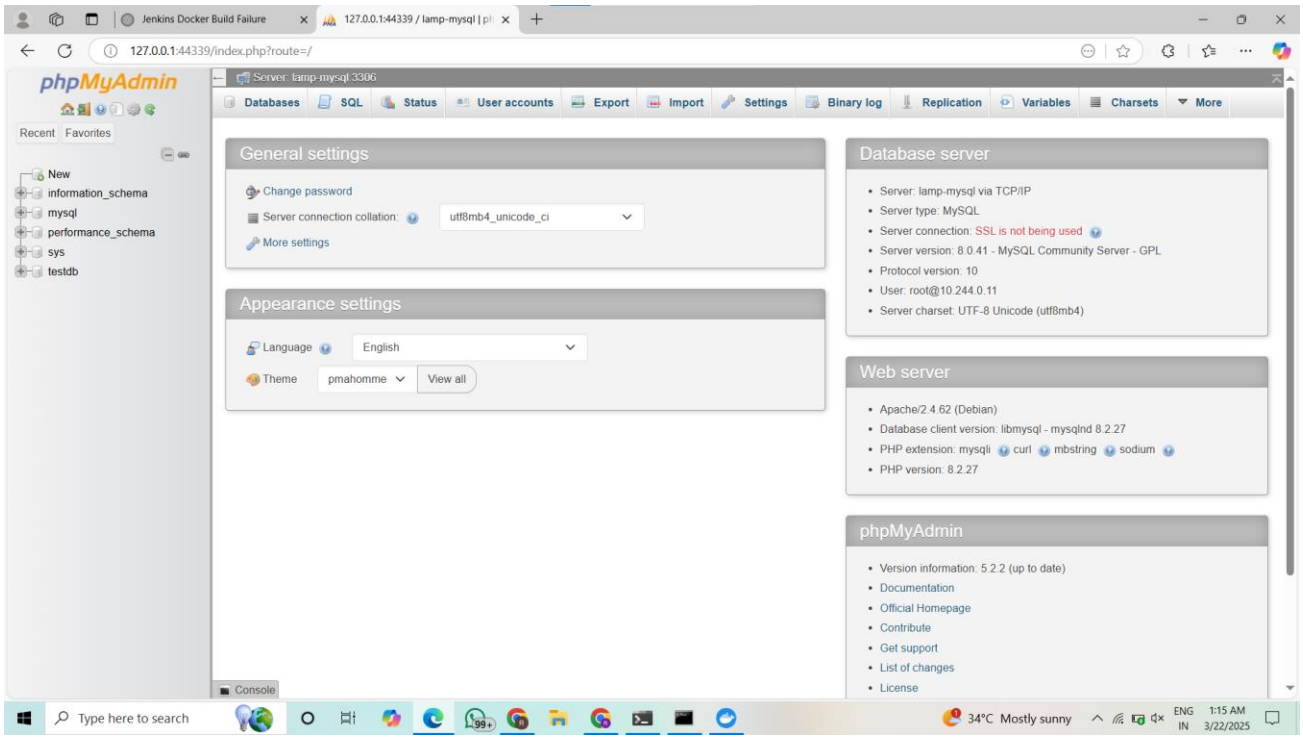
8. **Verify**:

   - Ensure that the service is accessible at the URL provided (e.g., http://127.0.0.1:44339).

OUTPUT:




Windows PowerShell
ubuntu@DESKTOP-R5SBIQC:
error: only one of -f or -k can be specified
ubuntu@DESKTOP-R5SBIQC:~/devops/kubernetes/deploy/yaml/apache_phpadmin_mysql/PHPMYADMIN_MYSQL$ kubectl apply -f lampdemo -k ./
error: only one of -f or -k can be specified
ubuntu@DESKTOP-R5SBIQC:~/devops/kubernetes/deploy/yaml/apache_phpadmin_mysql/PHPMYADMIN_MYSQL$ kubectl apply -n lampdemo -k ./
secret/mysql-pass-6d2997f772 created
service/lamp created
service/lamp-mysql unchanged
persistentvolumeclaim/lamp-pv-claim created
persistentvolumeclaim/mysql-pv-claim unchanged
deployment.apps/lamp created
deployment.apps/lamp-mysql configured
ubuntu@DESKTOP-R5SBIQC:~/devops/kubernetes/deploy/yaml/apache_phpadmin_mysql/PHPMYADMIN_MYSQL$ kubectl get po -n lampdemo -w
NAME READY STATUS RESTARTS AGE
lamp-d68899b54-kjsk7 1/1 Running 0 17s
lamp-mysql-6f8bb57c87-6qwfq 1/1 Running 0 16s
^X^Cubuntu@DESKTOP-R5SBIQC:~/devops/kubernetes/deploy/yaml/apache_phpadmin_mysql/PHPMYADMIN_MYSQL$ kubectl get svc -n lampdemo
NAME TYPE CLUSTER-IP EXTERNAL-IP PORT(S) AGE
lamp LoadBalancer 10.109.107.219 <pending> 80:31460/TCP 37s
lamp-mysql ClusterIP None <none> 3306/TCP 37h
ubuntu@DESKTOP-R5SBIQC:~/devops/kubernetes/deploy/yaml/apache_phpadmin_mysql/PHPMYADMIN_MYSQL$ minikube service lamp -n lampdemo 2>&1
| NAMESPACE | NAME | TARGET PORT | URL |
| lampdemo | lamp | 80 | http://192.168.49.2:31460 |
Starting tunnel for service lamp.
| NAMESPACE | NAME | TARGET PORT | URL |
| lampdemo | lamp | | http://127.0.0.1:44339 |
Opening service lampdemo/lamp in default browser...
http://127.0.0.1:44339
Because you are using a Docker driver on linux, the terminal needs to be open to run it.
Type here to search
34°C Mostly sunny
ENG IN
1:15 AM 3/22/2025


Jenkins Docker Build Failure
127.0.0.1:44339 / lamp-mysql | p
127.0.0.1:44339/index.php?route=/
phpMyAdmin
Recent Favorites
New
information_schema
mysql
performance_schema
sys
testdb
Server: lamp-mysql:3306
Databases SQL Status User accounts Export Import Settings Binary log Replication Variables Charsets More
General settings
Change password
Server connection collation: utf8mb4_unicode_ci
More settings
Appearance settings
Language English
Theme pmahomme View all
Database server
Server: lamp-mysql via TCP/IP
Server type: MySQL
Server connection: SSL is not being used
Server version: 8.0.41 - MySQL Community Server - GPL
Protocol version: 10
User: root@10.244.0.11
Server charset: UTF-8 Unicode (utf8mb4)
Web server
Apache/2.4.62 (Debian)
Database client version: libmysql - mysqlnd 8.2.27
PHP extension: mysqli curl mbstring sodium
PHP version: 8.2.27
phpMyAdmin
Version information: 5.2.2 (up to date)
Documentation
Official Homepage
Contribute
Get support
List of changes
License
Console
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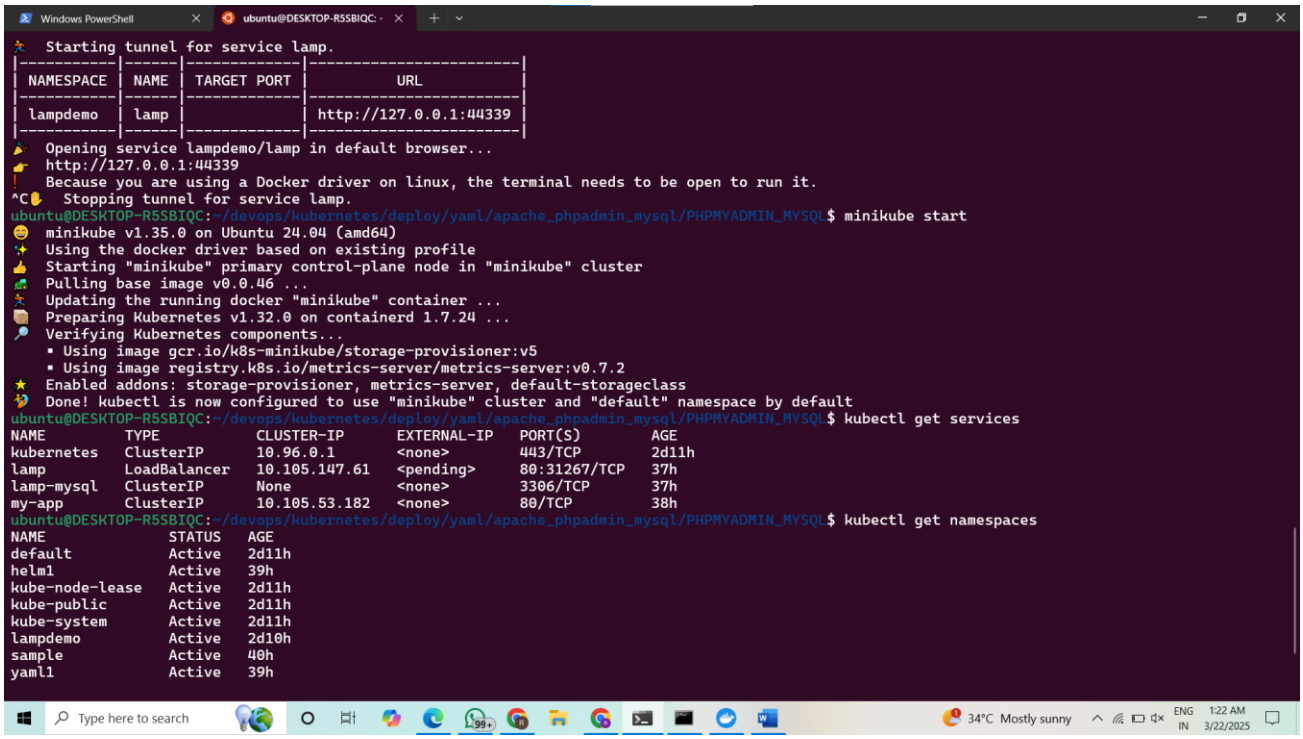
Windows PowerShell
ubuntu@DESKTOP-R5SBIQC: ~
Starting tunnel for service lamp.
| NAMESPACE | NAME | TARGET PORT | URL |
| lampdemo | lamp | | http://127.0.0.1:44339 |
Opening service lampdemo/lamp in default browser...
http://127.0.0.1:44339
Because you are using a Docker driver on linux, the terminal needs to be open to run it.
^C Stopping tunnel for service lamp.
ubuntu@DESKTOP-R5SBIQC:~/devops/kubernetes/deploy/yaml/apache_phpadmin_mysql/PHPMYADMIN_MYSQL$ minikube start
minikube v1.35.0 on Ubuntu 24.04 (amd64)
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 containerd 1.7.24 ...
Verifying Kubernetes components...
▪ Using image gcr.io/k8s-minikube/storage-provisioner:v5
▪ Using image registry.k8s.io/metrics-server/metrics-server:v0.7.2
Enabled addons: storage-provisioner, metrics-server, default-storageclass
Done! kubectl is now configured to use "minikube" cluster and "default" namespace by default
ubuntu@DESKTOP-R5SBIQC:~/devops/kubernetes/deploy/yaml/apache_phpadmin_mysql/PHPMYADMIN_MYSQL$ kubectl get services
NAME TYPE CLUSTER-IP EXTERNAL-IP PORT(S) AGE
kubernetes ClusterIP 10.96.0.1 <none> 443/TCP 2d11h
lamp LoadBalancer 10.105.147.61 <pending> 80:31267/TCP 37h
lamp-mysql ClusterIP None <none> 3306/TCP 37h
my-app ClusterIP 10.105.53.182 <none> 80/TCP 38h
ubuntu@DESKTOP-R5SBIQC:~/devops/kubernetes/deploy/yaml/apache_phpadmin_mysql/PHPMYADMIN_MYSQL$ kubectl get namespaces
NAME STATUS AGE
default Active 2d11h
helm1 Active 39h
kube-node-lease Active 2d11h
kube-public Active 2d11h
kube-system Active 2d11h
lampdemo Active 2d10h
sample Active 40h
yaml1 Active 39h
Type here to search
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