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**:

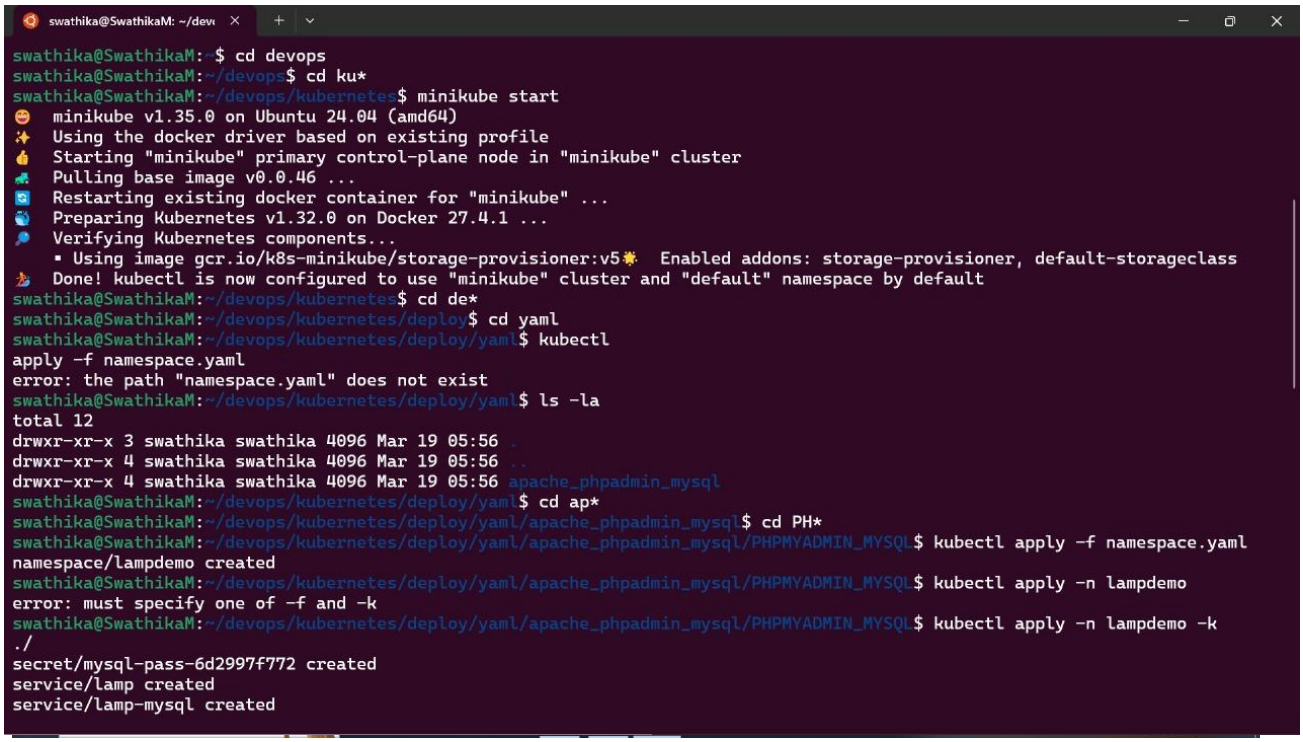
   - Open the service URL in your browser:

     bash
     CopyEdit
     minikube service lamp -n lampdemo

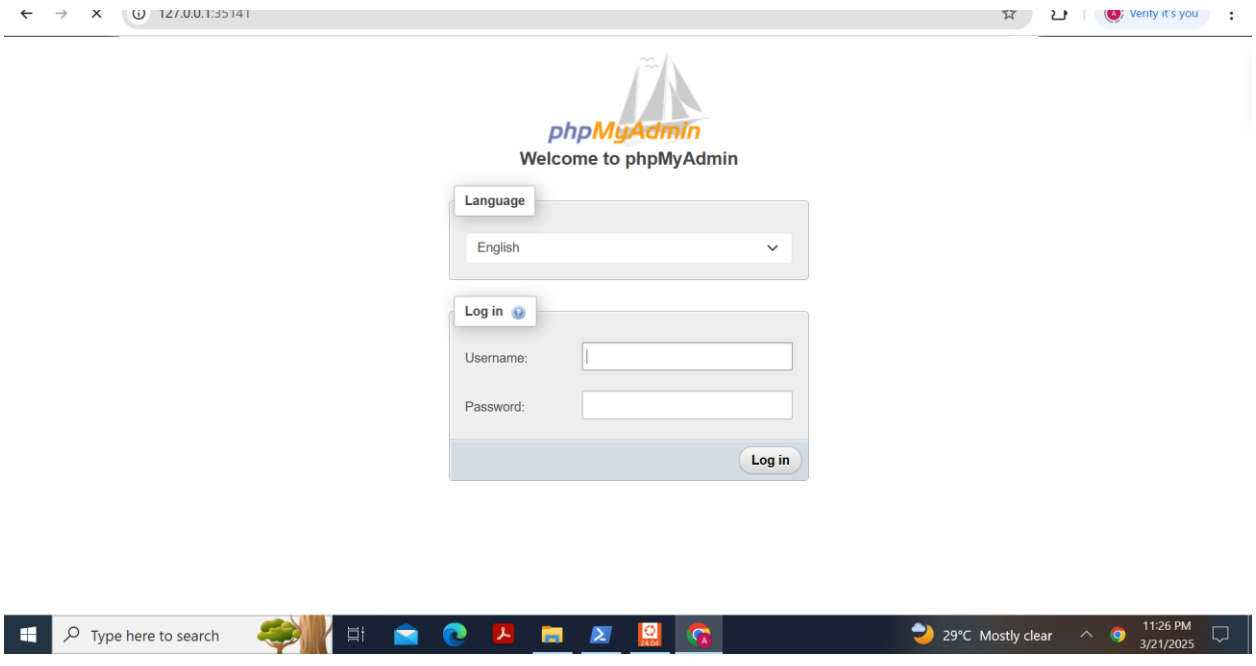
8. **Verify**:

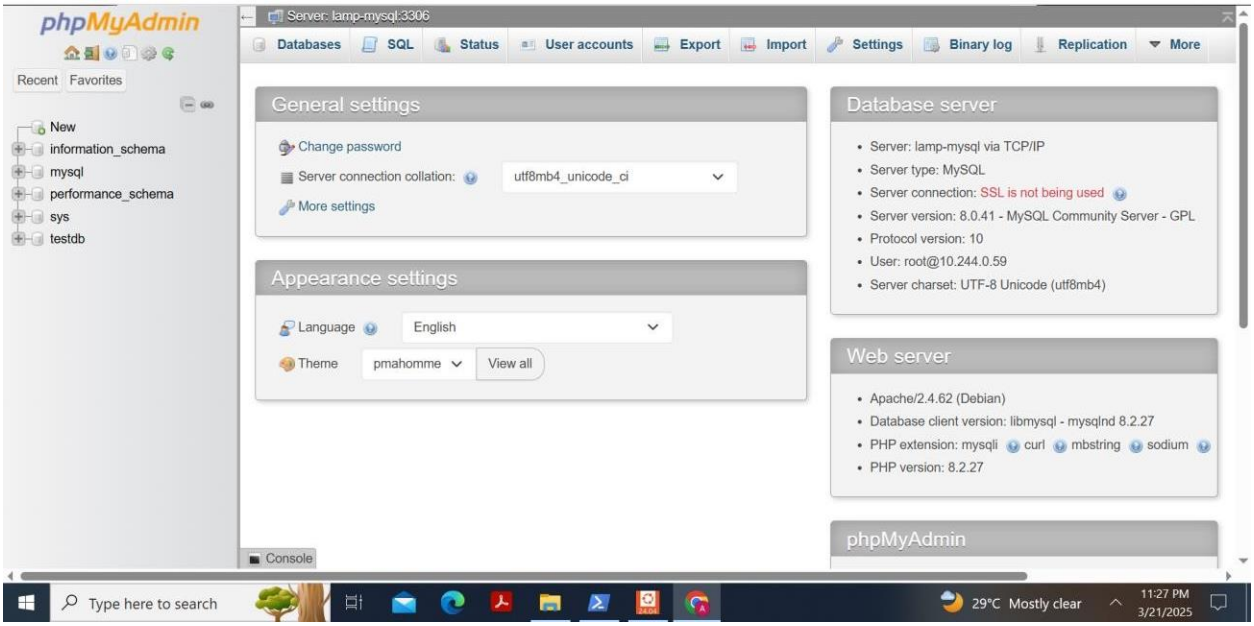
   - Ensure that the service is accessible at the URL provided (e.g., http://127.0.0.1:35141).

OUTPUT:



```
swathika@SwathikaM: ~/devo
drwxr-xr-x 4 swathika swathika 4096 Mar 19 05:56 apache_phpadmin_mysql
swathika@SwathikaM:~/devops/kubernetes/deploy/yaml$ cd ap*
swathika@SwathikaM:~/devops/kubernetes/deploy/yaml/apache_phpadmin_mysql$ cd PH*
swathika@SwathikaM:~/devops/kubernetes/deploy/yaml/apache_phpadmin_mysql/PHPMYADMIN_MYSQL$ kubectl apply -f namespace.yaml
namespace/lampdemo created
swathika@SwathikaM:~/devops/kubernetes/deploy/yaml/apache_phpadmin_mysql/PHPMYADMIN_MYSQL$ kubectl apply -n lampdemo
error: must specify one of -f and -k
swathika@SwathikaM:~/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 created
persistentvolumeclaim/lamp-pv-claim created
persistentvolumeclaim/mysql-pv-claim created
deployment.apps/lamp created
deployment.apps/lamp-mysql created
swathika@SwathikaM:~/devops/kubernetes/deploy/yaml/apache_phpadmin_mysql/PHPMYADMIN_MYSQL$ kubectl get po -n lampdemo
NAME                          READY   STATUS              RESTARTS   AGE
lamp-d68899b54-n6dsk          0/1     ContainerCreating   0          27s
lamp-mysql-6f8bb57c87-fl984   0/1     ContainerCreating   0          26s
swathika@SwathikaM:~/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   10.100.200.190   <pending>     80:31741/TCP   64s
lamp-mysql   ClusterIP      None             <none>        3306/TCP       64s
swathika@SwathikaM:~/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://192.168.49.2:31741 |
|-----------|------|-------------|-------------------------|
```




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
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@10.244.0.59
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
Console
Type here to search
29°C Mostly clear
11:27 PM
3/21/2025