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**:

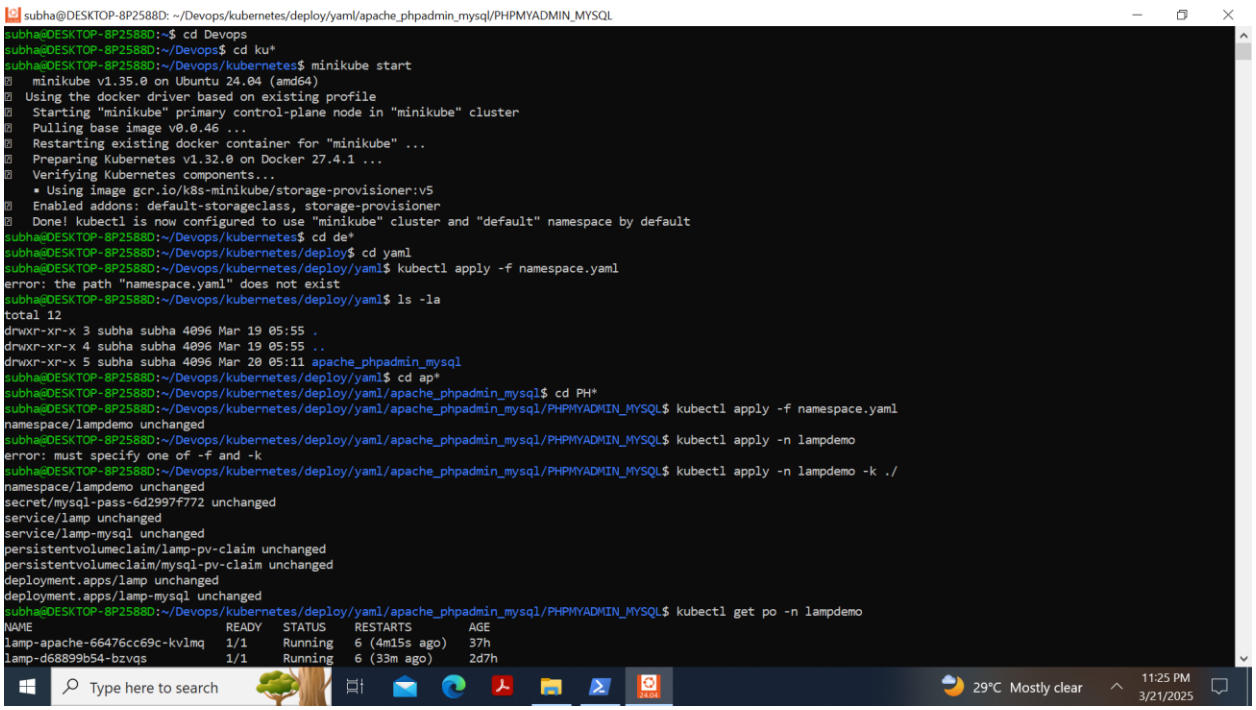
   - Open the service URL in your browser:

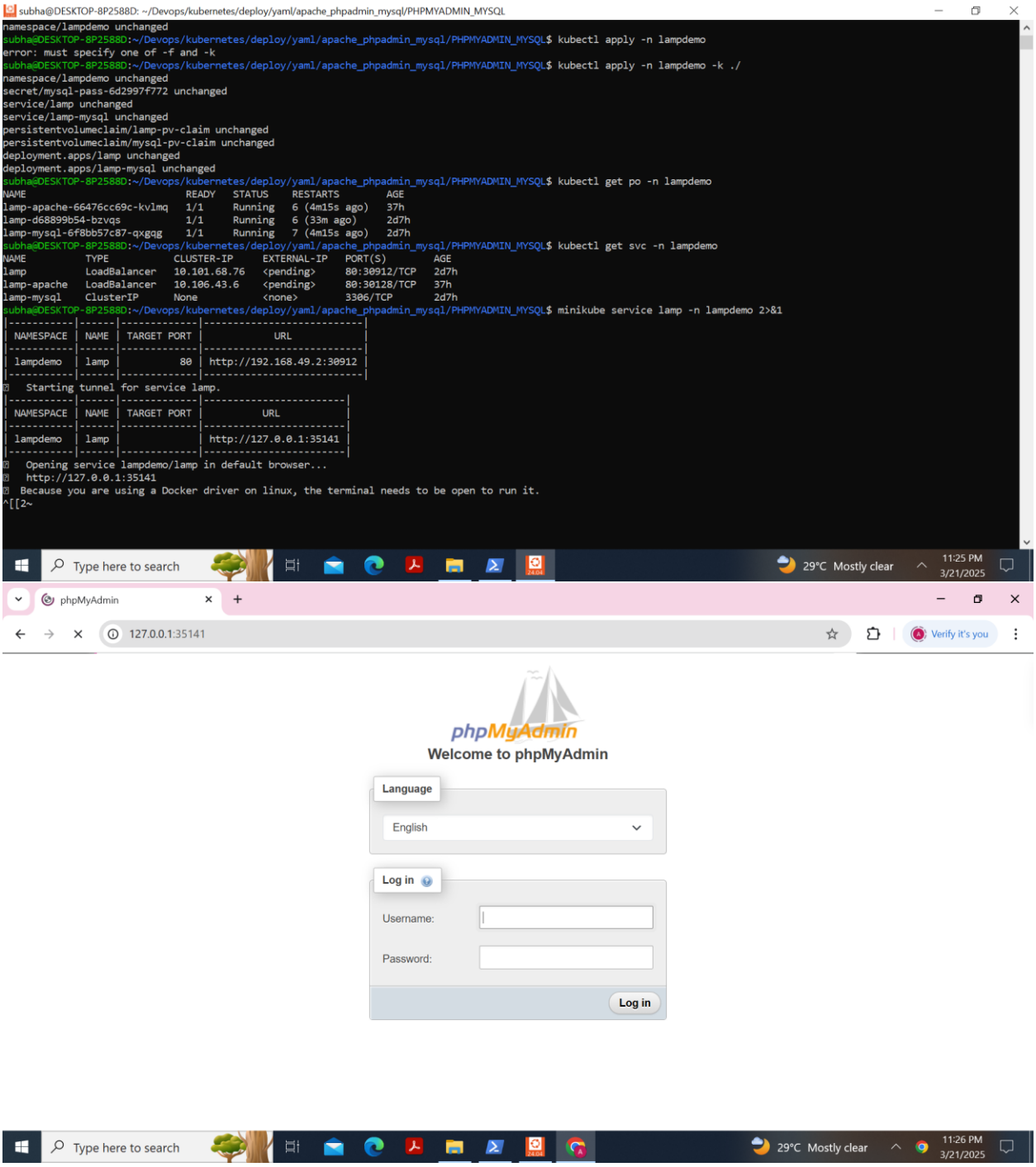
     bash
     CopyEdit
     minikube service lamp -n lampdemo

8. **Verify**:

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

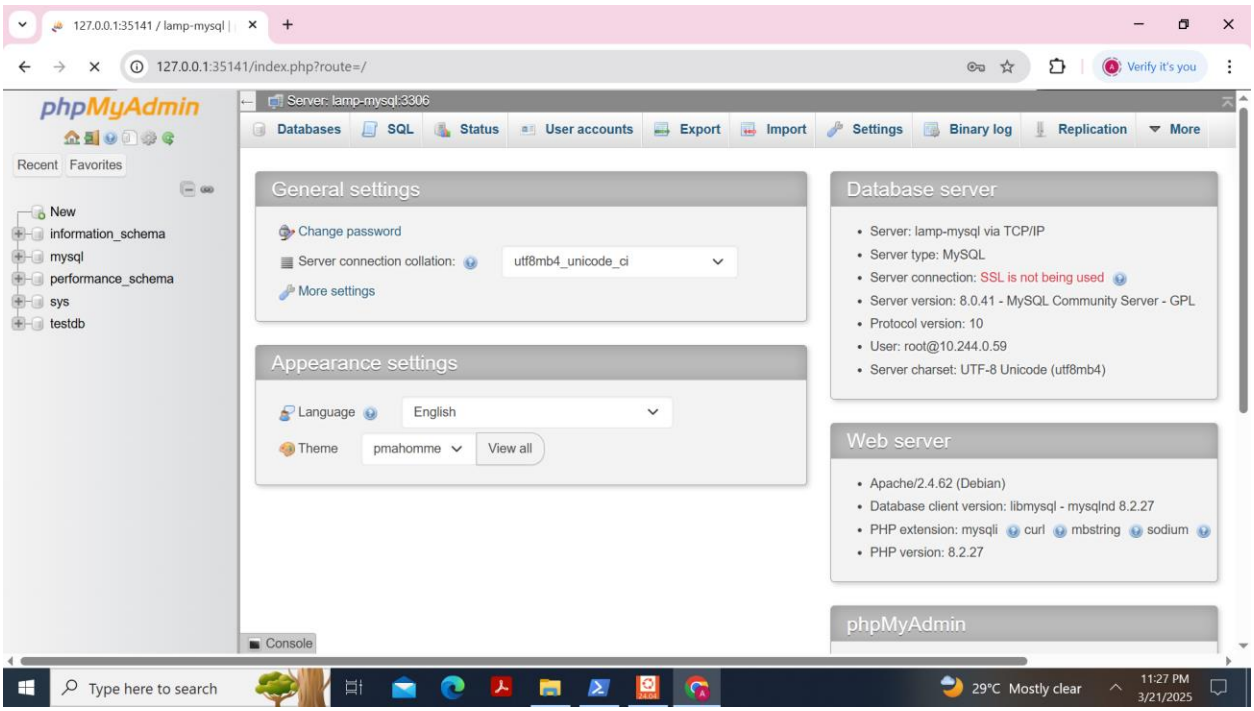
OUTPUT:




subha@DESKTOP-8P2588D: ~/Devops/kubernetes/deploy/yaml/apache_phpadmin_mysql/PHPMYADMIN_MYSQL
namespace/lampdemo unchanged
subha@DESKTOP-8P2588D:~/Devops/kubernetes/deploy/yaml/apache_phpadmin_mysql/PHPMYADMIN_MYSQL$ kubectl apply -n lampdemo
error: must specify one of -f and -k
subha@DESKTOP-8P2588D:~/Devops/kubernetes/deploy/yaml/apache_phpadmin_mysql/PHPMYADMIN_MYSQL$ kubectl apply -n lampdemo -k ./
namespace/lampdemo unchanged
secret/mysql-pass-6d2997f772 unchanged
service/lamp unchanged
service/lamp-mysql unchanged
persistentvolumeclaim/lamp-pv-claim unchanged
persistentvolumeclaim/mysql-pv-claim unchanged
deployment.apps/lamp unchanged
deployment.apps/lamp-mysql unchanged
subha@DESKTOP-8P2588D:~/Devops/kubernetes/deploy/yaml/apache_phpadmin_mysql/PHPMYADMIN_MYSQL$ kubectl get po -n lampdemo
NAME READY STATUS RESTARTS AGE
lamp-apache-66476cc69c-kvlmq 1/1 Running 6 (4m15s ago) 37h
lamp-d68899b54-bzvqs 1/1 Running 6 (33m ago) 2d7h
lamp-mysql-6f8bb57c87-qxgqg 1/1 Running 7 (4m15s ago) 2d7h
subha@DESKTOP-8P2588D:~/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 10.101.68.76 <pending> 80:30912/TCP 2d7h
lamp-apache LoadBalancer 10.106.43.6 <pending> 80:30128/TCP 37h
lamp-mysql ClusterIP None <none> 3306/TCP 2d7h
subha@DESKTOP-8P2588D:~/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://192.168.49.2:30912
Starting tunnel for service lamp.
NAMESPACE NAME TARGET PORT URL
lampdemo lamp http://127.0.0.1:35141
Opening service lampdemo/lamp in default browser...
http://127.0.0.1:35141
Because you are using a Docker driver on linux, the terminal needs to be open to run it.
^[[2~
Type here to search
29°C Mostly clear
11:25 PM
3/21/2025

phpMyAdmin
127.0.0.1:35141
Verify it's you
phpMyAdmin
Welcome to phpMyAdmin
Language
English
Log in
Username:
Password:
Log in

Type here to search
29°C Mostly clear
11:26 PM
3/21/2025


127.0.0.1:35141 / lamp-mysql |
127.0.0.1:35141/index.php?route=/
Verify it's you
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