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:

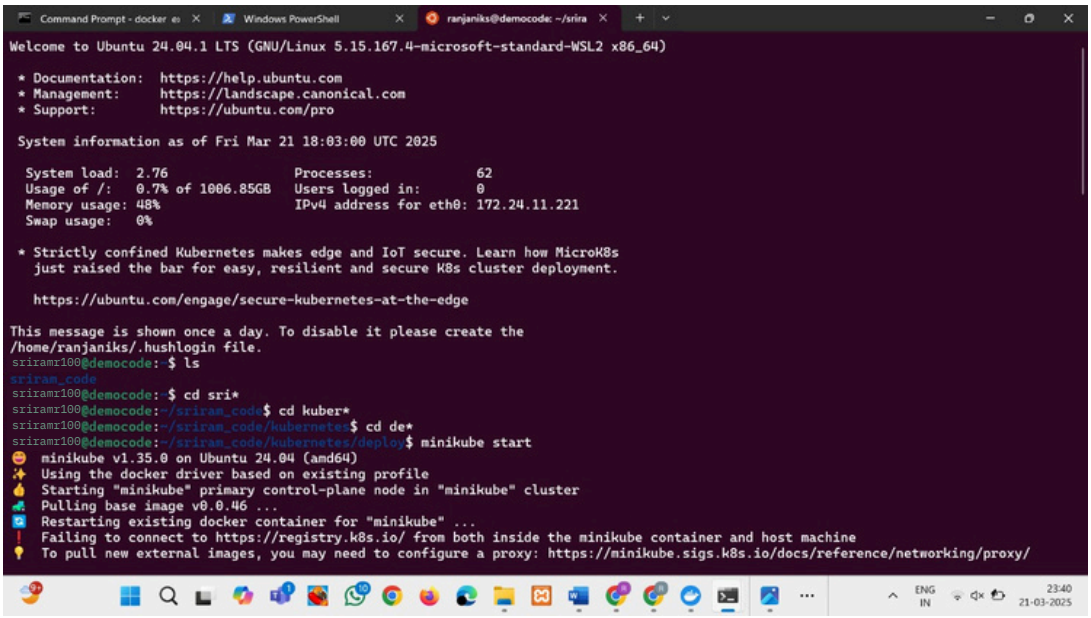
- Open the service URL in your browser:

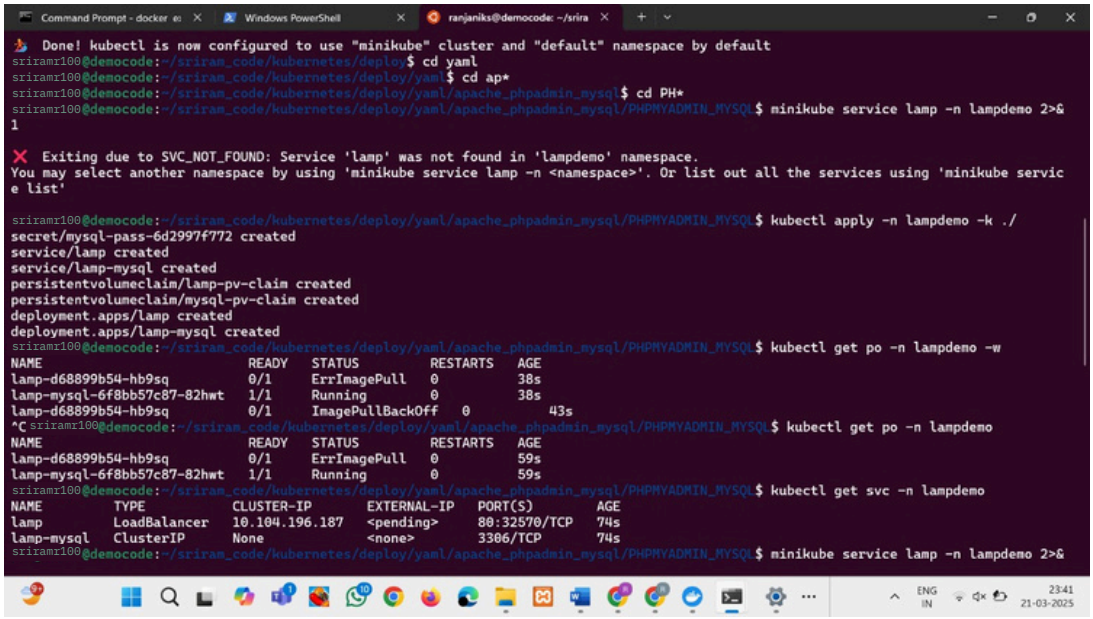
  bash
  CopyEdit
  minikube service lamp -n lampdemo

8. Verify:

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

OUTPUT:




Command Prompt - docker e
Windows PowerShell
ranjaniks@democode: ~/srira
Done! kubectl is now configured to use "minikube" cluster and "default" namespace by default
sriramr100@democode:~/sriram_code/kubernetes/deploy$ cd yaml
sriramr100@democode:~/sriram_code/kubernetes/deploy/yaml$ cd ap*
sriramr100@democode:~/sriram_code/kubernetes/deploy/yaml/apache_phpadmin_mysql$ cd PH*
sriramr100@democode:~/sriram_code/kubernetes/deploy/yaml/apache_phpadmin_mysql/PHPMYADMIN_MYSQL$ minikube service lamp -n lampdemo 2>&
1
Exiting due to SVC_NOT_FOUND: Service 'lamp' was not found in 'lampdemo' namespace.
You may select another namespace by using 'minikube service lamp -n <namespace>'. Or list out all the services using 'minikube servic
e list'
sriramr100@democode:~/sriram_code/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
sriramr100@democode:~/sriram_code/kubernetes/deploy/yaml/apache_phpadmin_mysql/PHPMYADMIN_MYSQL$ kubectl get po -n lampdemo -w
NAME READY STATUS RESTARTS AGE
lamp-d68899b54-hb9sq 0/1 ErrImagePull 0 38s
lamp-mysql-6f8bb57c87-82hwt 1/1 Running 0 38s
lamp-d68899b54-hb9sq 0/1 ImagePullBackOff 0 43s
^C sriramr100@democode:~/sriram_code/kubernetes/deploy/yaml/apache_phpadmin_mysql/PHPMYADMIN_MYSQL$ kubectl get po -n lampdemo
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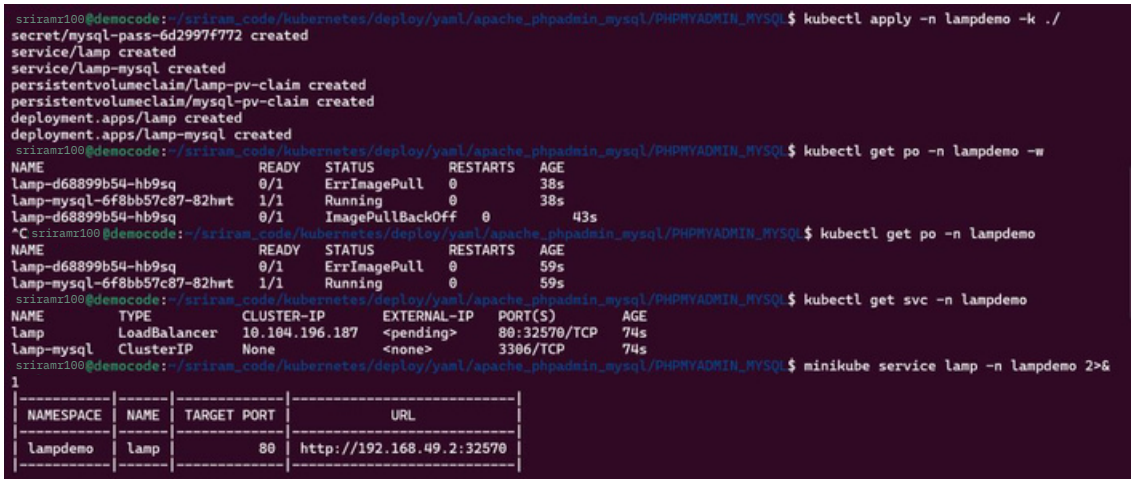
sriramr100@democode:~/sriram_code/kubernetes/deploy/yaml/apache_phpadmin_mysql/PHPMYADMIN_MYSQL$ kubectl get svc -n lampdemo
NAME TYPE CLUSTER-IP EXTERNAL-IP PORT(S) AGE
lamp LoadBalancer 10.104.196.187 <pending> 80:32570/TCP 74s
lamp-mysql ClusterIP None <none> 3306/TCP 74s
sriramr100@democode:~/sriram_code/kubernetes/deploy/yaml/apache_phpadmin_mysql/PHPMYADMIN_MYSQL$ minikube service lamp -n lampdemo 2>&
ENG
IN
23:41
21-03-2025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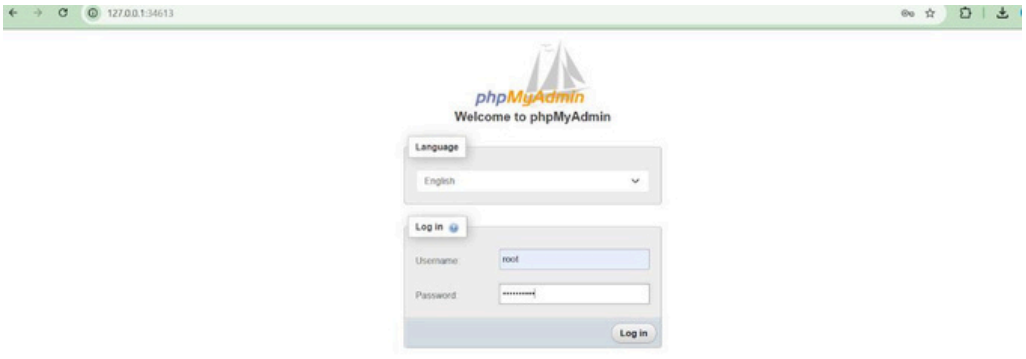
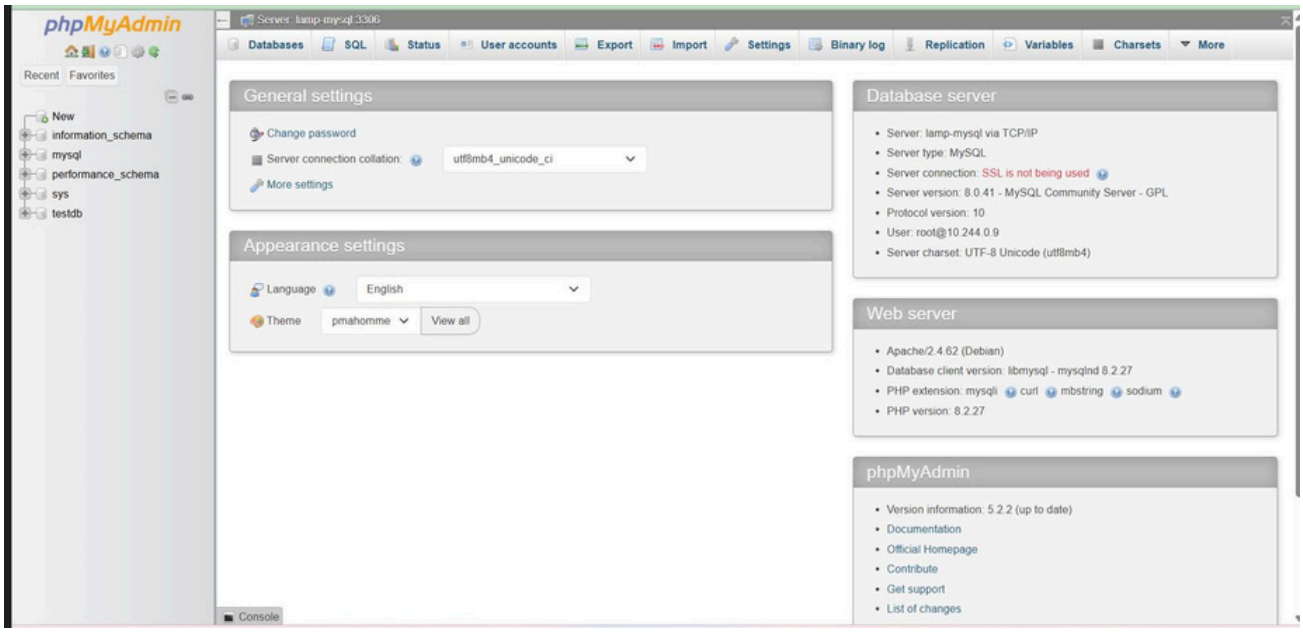
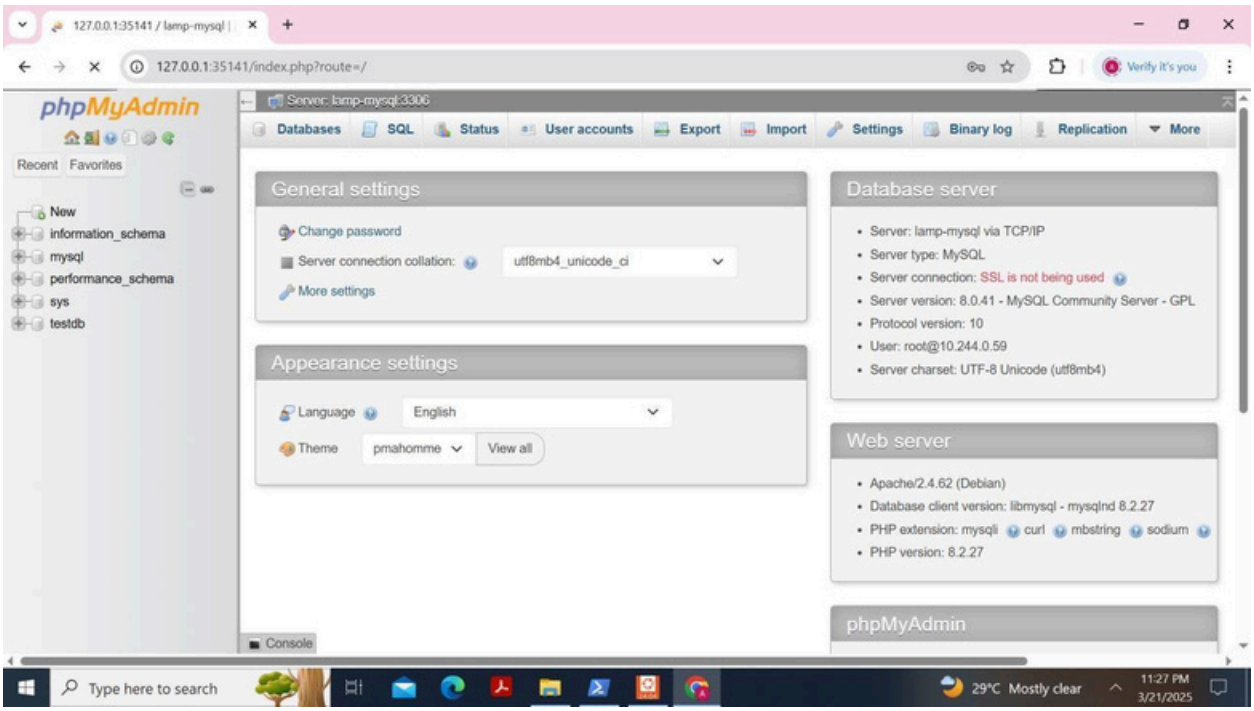
sriramr100@democode:~/sriram_code/kubernetes/deploy/yaml/apache_phpadmin_mysql/PHPMYADMIN_MYSQL$ minikube service lamp -n lampdemo 2>&
1
| NAMESPACE | NAME | TARGET PORT | URL |
| lampdemo | lamp | 80 | http://192.168.49.2:32570 |


127.0.0.1:34613
phpMyAdmin
Welcome to phpMyAdmin
Language
English
Log in
Username
root
Password
Log in


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@10.244.0.9
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
Console


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
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Server type: MySQL
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User: root@10.244.0.59
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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