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:

Welcome to Ubuntu 24.04.1 LTS (GNU/Linux 5.15.167.4-microsoft-standard-WSL2 x86_64)
Documentation: https://help.ubuntu.com
Management:
https://landscape.canonical.com
Support:
https://ubuntu.com/pro
System information as of Fri Mar 21 18:03:00 UTC 2025
System load:
2.76
Processes:
X
62
Usage of /: 0.7% of 1006.85GB
Users logged in: 0
Memory usage:
48%
0%
IPv4 address for eth0: 172.24.11.221
Swap usage:
Strictly confined Kubernetes makes edge and IoT secure. Learn how MicroK8s
just raised the bar for easy, resilient and secure K8s cluster deployment.
https://ubuntu.com/engage/secure-kubernetes-at-the-edge
This message is shown once a day. To disable it please create the /home/rahuls161/.hushlogin file.
rahuls161@democode: $ ls
sriran_code
rahuls161@democode: $ cd sri*
rahuls161@democode:-/sriral code$ cd kuber*
rahuls161@democode:-/sviram_code/kubernete $ cd de*
rahuls161@democode:-/sriram_code/kubernetes/deploy$ 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
Restarting existing docker container for "minikube"
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/
Done! kubectl is now configured to use "minikube" cluster and "default" namespace by default
rahuls161@democode:-/sriran_code/kubernetes/deplo$ cd yaml
rahuls161@democode:-/sriram_code/kubernetes/deploy/yan$ cd ap

```
rahuls161@democode:-/sriram,code/kubernetes/deploy/yanl/apache_phpadsin nye $ cd PH*
rahuls161@democode:-/sriran.code/kubernetes/deploy/yanl/apache_phpadmin Rysql/PHPMYADMINYS $ minikube
service lamp -n lampdemo 2>&
1
X 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'
rahuls161@democode:-/sT code/kubernetes/deploy/yant/apache_phpadnin.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
rahuls161@democode:/sriran.co bernetes/deploy/yant/apache_phpadmin_nysql/PHPMYADMIN MYSQL$ kubectl get
pon lampdemo -w
NAME
lamp-d68899654-hb9sq
X
READY
STATUS
0/1
RESTARTS
AGE
ErrImagePull 0
385
lamp-mysql-6f8bb57c87-82hwt
1/1
Running
0
385
Lamp-d68899654-hb9sq
0/1
ImagePullBackOff
0
43s
*rahuls161@democode:-/sriran code/kul
deple
NAME
READY
STATUS
RESTARTS
AGE
lamp-d68899654-hb9sq
rahuls161@democode:-/srir
0/1
ErrImagePull
0
595
lamp-mysql-6f8bb57c87-82hwt
1/1 Running
0
595
es/depl
ohpadwin mysql/PHPMYADMIN_NYSOU$ kubectl get po -n lampdemo
padmin/mysql/PHPMYADMIN_MYSUL$ kubectl get svc -n Lampdemo
NAME
TYPE
```

CLUSTER-IP
EXTERNAL-IP
PORT(S)
Lamp
Load Balancer
10.104.196.187
<pending>
lamp-mysql
Cluster IP
None
<none>
80:32570/TCP
3306/TCP
AGE
74s
74s
rahuls161@democode:/sriran.code/kubernetes/deploy/y admin Rysql/PHPMYADMIN HYS
$ minikube service lamp -n lampdemo 2>&
secret/mysql-pass-6029974772 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

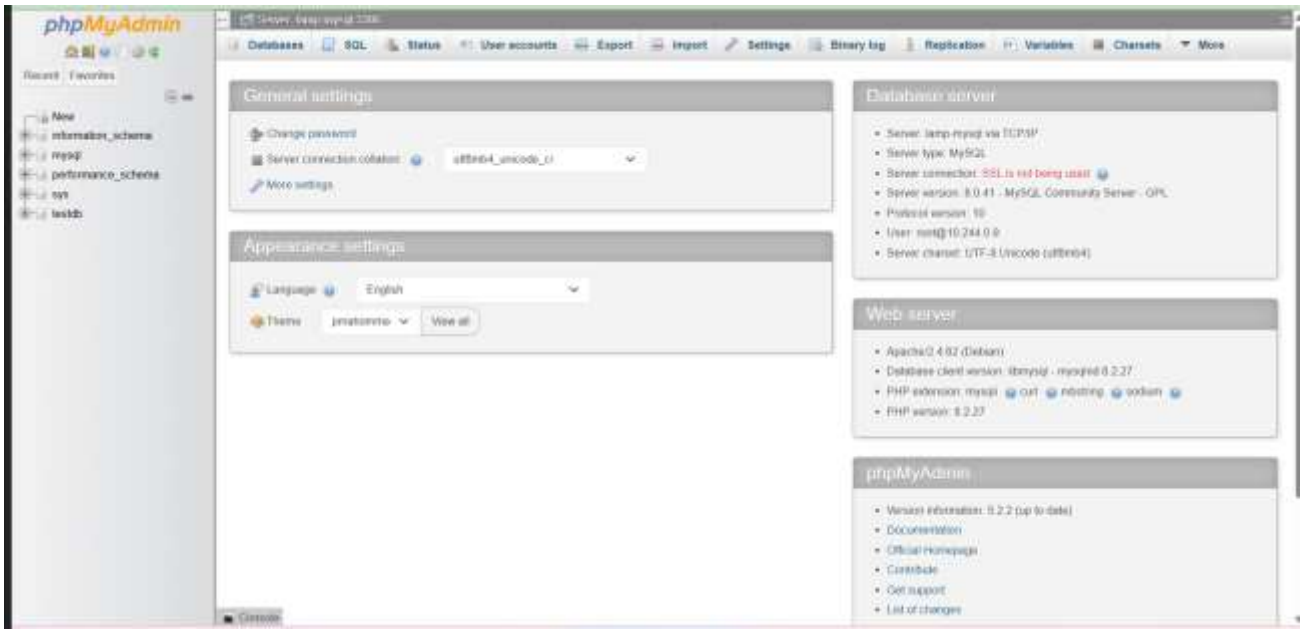
$ kubectl apply -n lampdemo -k ./
$ kubectl get pods -n lampdemo
NAME READY STATUS RESTARTS AGE
lamp-668899654-hb9sq 0/1 ErrImagePull 0 385s
lamp-mysql-6f8bb57c87-82hat 1/1 Running 0 385s
lamp-668899654-hb9sq 0/1 ImagePullBackOff 0 435s

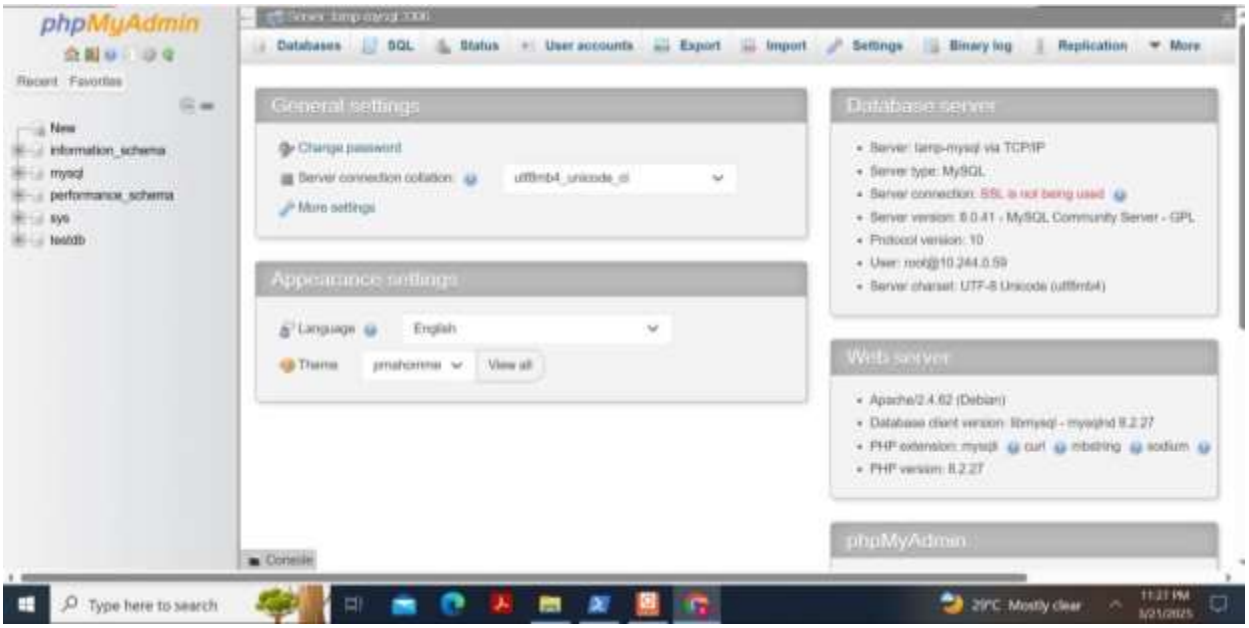
$ kubectl get pods -n lampdemo
NAME READY STATUS RESTARTS AGE
lamp-668899654-hb9sq 0/1 ErrImagePull 0 595s
lamp-mysql-6f8bb57c87-82hwrt 1/1 Running 0 595s

$ kubectl get svc -n lampdemo
NAME TYPE CLUSTER-IP EXTERNAL-IP PORT(S) AGE
lamp LoadBalancer 10.104.196.187 <pending> 80:32570/TCP 746s
lamp-mysql ClusterIP None <none> 3306/TCP 745s

$ minikube service lamp -n lampdemo
NAMESPACE NAME TARGET PORT URL
lampdemo lamp 80 http://192.168.49.2:32570


phpMyAdmin
Welcome to phpMyAdmin
Language
Log in
Log in


phpMyAdmin
Recent Favorites
New
information_schema
mysql
performance_schema
sys
testdb
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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Database server
Server: tamp-mysql via TCP/IP
Server type: MySQL
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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
8/21/2025