TASK-3

DEPLOY A WEB APPLICATION USING KUBERNETS

1) **Start Minikube:**

   - Run minikube start to start your local kubernets cluster.

2) **Navigate to the Deployment Directory:**

   - Go to the directory containing your YAML files.

3) **Apply Namespace:**

   - Apply the namespace yaml configuration:

   - Kubectl apply -f namespace.yaml.

4) **Deploy Resource in the Namespace:**

   - Apply the resouces in the lampdemo namespace.

   - Kubectl apply -n lampdemo -k ./

5) **Check pods:**

   - Verify that the pods are running:

   - Kubectl get po -n lampdemo

6) **Check Services:**

   - Check the services to get the external IP and port for access:

   - Kubectl get svc -n lampdemo

7) **Access the service:**

   - Open the service URL in your browser.

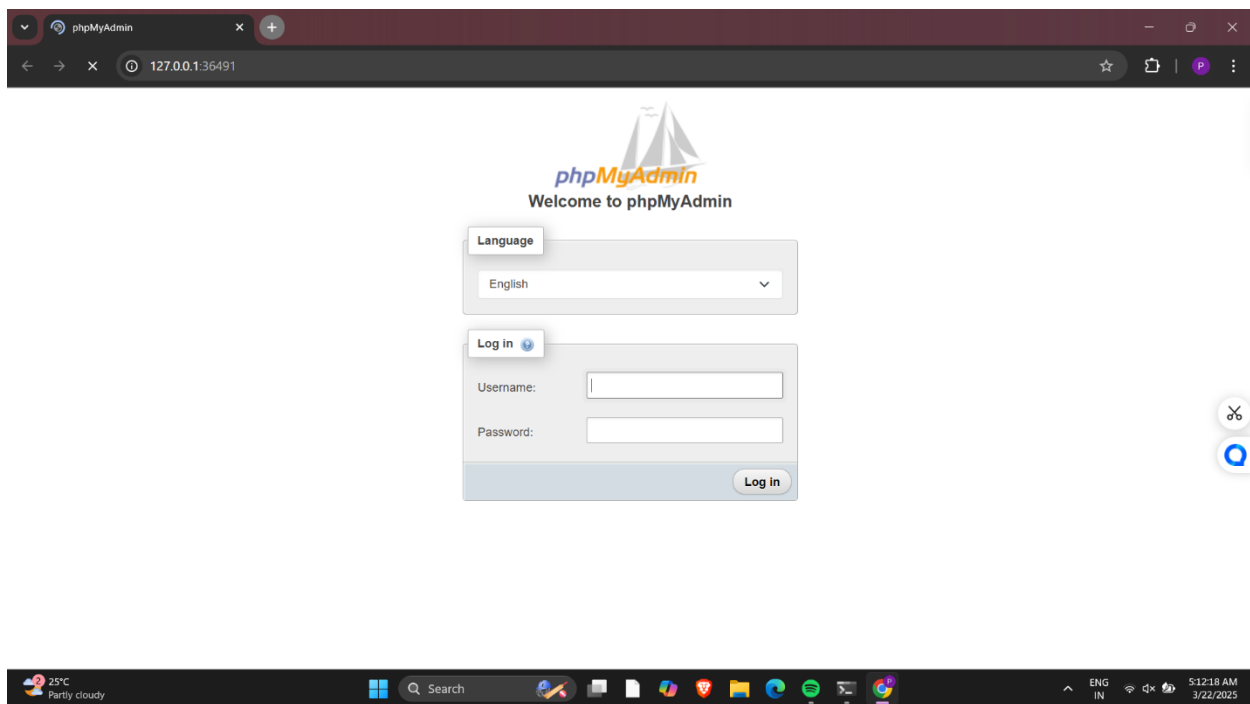   - minikube service lamp -n lampdemo

8) Verify:

- Execute that the service is accessible at the url provided

- http://127.0.0.1:32955

9) OUTPUT


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praveen@PRAVEEN:~/dev                                                      ×   +  ∨                                                         —   □   ×
praveen@PRAVEEN:~$ cd devops
praveen@PRAVEEN:~/devops$ cd ku*
praveen@PRAVEEN:~/devops/kubernetes$ 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" ...
🐳  Preparing Kubernetes v1.32.0 on Docker 27.4.1 ...
🔎  Verifying Kubernetes components...
    * Using image gcr.io/k8s-minikube/storage-provisioner:v5
🌟  Enabled addons: default-storageclass, storage-provisioner
🏄  Done! kubectl is now configured to use "minikube" cluster and "default" namespace by default
praveen@PRAVEEN:~/devops/kubernetes$ cd de*
praveen@PRAVEEN:~/devops/kubernetes/deploy$ cd yaml
praveen@PRAVEEN:~/devops/kubernetes/deploy/yaml$ kublect apply -f namespace.yaml
kublect: command not found
praveen@PRAVEEN:~/devops/kubernetes/deploy/yaml$ kubectl apply -f namespace.yaml
error: the path "namespace.yaml" does not exist
praveen@PRAVEEN:~/devops/kubernetes/deploy/yaml$ ls -la
total 12
drwxr-xr-x 3 praveen praveen 4096 Mar 19 07:57 .
drwxr-xr-x 4 praveen praveen 4096 Mar 19 07:57 ..
drwxr-xr-x 4 praveen praveen 4096 Mar 19 07:57 apache_phpadmin_mysql
praveen@PRAVEEN:~/devops/kubernetes/deploy/yaml$ cd ap*
praveen@PRAVEEN:~/devops/kubernetes/deploy/yaml/apache_phpadmin_mysql$ cd PH*
praveen@PRAVEEN:~/devops/kubernetes/deploy/yaml/apache_phpadmin_mysql/PHPMYADMIN_MYSQL$ kubectl apply -f namespace.yaml
namespace/lampdemo unchanged
praveen@PRAVEEN:~/devops/kubernetes/deploy/yaml/apache_phpadmin_mysql/PHPMYADMIN_MYSQL$ kubectl apply -n lampdemo
error: must specify one of -f and -k
praveen@PRAVEEN:~/devops/kubernetes/deploy/yaml/apache_phpadmin_mysql/PHPMYADMIN_MYSQL$ kubectl apply -n lampdemo -k ./
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
praveen@PRAVEEN:~/devops/kubernetes/deploy/yaml/apache_phpadmin_mysql/PHPMYADMIN_MYSQL$ kubectl get po -n lampdemo
NAME                      READY   STATUS    RESTARTS        AGE
lamp-d68899b54-pzjdp      1/1     Running   1 (4m32s ago)   39h
```

```
lamp-mysql-6f8bb57c87-pdvsn   1/1    Running   1 (4m32s ago)   39h
praveen@PRAVEEN:~/devops/kubernetes/deploy/yaml/apache_phpadmin_mysql/PHPMYADMIN_MYSQL$ kubectl apply -n lampdemo -k ./
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
praveen@PRAVEEN:~/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   10.107.70.80    <pending>     80:30984/TCP   39h
lamp-mysql   ClusterIP      None            <none>        3306/TCP       39h
praveen@PRAVEEN:~/devops/kubernetes/deploy/yaml/apache_phpadmin_mysql/PHPMYADMIN_MYSQL$ minikube service lamp -n lampdem
o 2>&1
|-----------|------|-------------|---------------------------|
| NAMESPACE | NAME | TARGET PORT |            URL            |
|-----------|------|-------------|---------------------------|
| lampdemo  | lamp |      80     | http://192.168.49.2:30984 |
|-----------|------|-------------|---------------------------|
🏃  Starting tunnel for service lamp.
|-----------|------|-------------|---------------------------|
| NAMESPACE | NAME | TARGET PORT |            URL            |
|-----------|------|-------------|---------------------------|
| lampdemo  | lamp |             |  http://127.0.0.1:36491   |
|-----------|------|-------------|---------------------------|
🎉  Opening service lampdemo/lamp in default browser...
👉  http://127.0.0.1:36491
❗  Because you are using a Docker driver on linux, the terminal needs to be open to run it.
^@
```

127.0.0.1:32955/index.php?route=/

phpMyAdmin

Recent Favorites

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  - information_schema
  - mysql
  - performance_schema
  - sys
  - testdb

Server: lamp-mysql:3306

Databases | SQL | Status | User accounts | Export | Import | Settings | Binary log | Replication | Variables | 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@10.244.0.8
- 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

Console

25°C
Partly cloudy

Q Search

ENG IN
5:38:22 AM
3/22/2025