

## 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
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kubectl apply -f namespace.yaml
```

### 4. Deploy Resources in the Namespace:

- Apply the resources in the `lampdemo` namespace:

```
bash
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kubectl apply -n lampdemo -k ./
```

### 5. Check Pods:

- Verify that the pods are running:

```
bash
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kubectl get po -n lampdemo
```

### 6. Check Services:

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

```
bash
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kubectl get svc -n lampdemo
```

## 7. Access the Service:

- Open the service URL in your browser:

```
bash
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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:

```
karthi@DESKTOP-8P2588D:~$ cd Devops
karthi@DESKTOP-8P2588D:~/Devops$ cd ku*
karthi@DESKTOP-8P2588D:~/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! kubectll is now configured to use "minikube" cluster and "default" namespace by default
karthi@DESKTOP-8P2588D:~/Devops/kubernetes$ cd de*
karthi@DESKTOP-8P2588D:~/Devops/kubernetes/deploy$ cd yaml
karthi@DESKTOP-8P2588D:~/Devops/kubernetes/deploy/yaml$ kubectl apply -f namespace.yaml
error: the path "namespace.yaml" does not exist
karthi@DESKTOP-8P2588D:~/Devops/kubernetes/deploy/yaml$ ls -la
total 12
drwxr-xr-x 3 karthi karthi 4096 Mar 19 05:55 .
drwxr-xr-x 4 karthi karthi 4096 Mar 19 05:55 ..
drwxr-xr-x 5 karthi karthi 4096 Mar 20 05:11 apache_phpadmin_mysql
karthi@DESKTOP-8P2588D:~/Devops/kubernetes/deploy/yaml$ cd ap*
karthi@DESKTOP-8P2588D:~/Devops/kubernetes/deploy/yaml/apache_phpadmin_mysql$ cd PH*
karthi@DESKTOP-8P2588D:~/Devops/kubernetes/deploy/yaml/apache_phpadmin_mysql/PHPMYADMIN_MYSQL$ kubectl apply -f namespace.yaml
namespace/lampdemo unchanged
karthi@DESKTOP-8P2588D:~/Devops/kubernetes/deploy/yaml/apache_phpadmin_mysql/PHPMYADMIN_MYSQL$ kubectl apply -n lampdemo
error: must specify one of -f and -k
karthi@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
karthi@DESKTOP-8P2588D:~/Devops/kubernetes/deploy/yaml/apache_phpadmin_mysql/PHPMYADMIN_MYSQL$ kubectl get po -n lampdemo
NAME                                READY   STATUS    RESTARTS   AGE
lamp-apache-66476cc69c-kv1mq        1/1     Running   6 (4m15s ago)    37h
lamp-d68899b54-bzvqs                1/1     Running   6 (33m ago)      2d7h
```

```

namespace/lampdemo unchanged
karthik@DESKTOP-8P2588D:~/Devops/kubernetes/deploy/yaml/apache_phpadmin_mysql/PHPMYADMIN_MYSQL$ kubectl apply -n lampdemo
error: must specify one of -f and -k
karthik@DESKTOP-8P2588D:~/Devops/kubernetes/deploy/yaml/apache_phpadmin_mysql/PHPMYADMIN_MYSQL$ kubectl apply -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
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karthik@DESKTOP-8P2588D:~/Devops/kubernetes/deploy/yaml/apache_phpadmin_mysql/PHPMYADMIN_MYSQL$ kubectl get po -n lampdemo
NAME                                READY   STATUS    RESTARTS   AGE
lamp-apache-66476cc69c-kv1mq        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
karthik@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
karthik@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~

```



Language

English

Log in

Username:

Password:

Log in

