

# 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://127.0.0.1:44339> ).

## OUTPUT:

```
ubuntu@DESKTOP-R5SBIQC:~/devops/kubernetes/deploy/yaml/apache_phpadmin_mysql$ cd PHPMYADMIN_MYSQL/
ubuntu@DESKTOP-R5SBIQC:~/devops/kubernetes/deploy/yaml/apache_phpadmin_mysql/PHPMYADMIN_MYSQL$ kubectl get services
NAME          TYPE          CLUSTER-IP    EXTERNAL-IP    PORT(S)          AGE
kubernetes    ClusterIP     10.96.0.1     <none>         443/TCP          2d11h
lamp          LoadBalancer 10.105.147.61 <pending>      80:31267/TCP     37h
lamp-mysql    ClusterIP     None          <none>         3306/TCP         37h
my-app        ClusterIP     10.105.53.182 <none>         80/TCP           38h
ubuntu@DESKTOP-R5SBIQC:~/devops/kubernetes/deploy/yaml/apache_phpadmin_mysql/PHPMYADMIN_MYSQL$ kubectl get namespaces
NAME          STATUS    AGE
default       Active   2d11h
helm          Active   39h
kube-node-lease Active   2d11h
kube-public   Active   2d11h
kube-system   Active   2d11h
lampdemo      Active   2d10h
sample        Active   39h
yaml          Active   39h
ubuntu@DESKTOP-R5SBIQC:~/devops/kubernetes/deploy/yaml/apache_phpadmin_mysql/PHPMYADMIN_MYSQL$ kubectl apply -f sample -k ./
error: only one of -f or -k can be specified
ubuntu@DESKTOP-R5SBIQC:~/devops/kubernetes/deploy/yaml/apache_phpadmin_mysql/PHPMYADMIN_MYSQL$ kubectl apply -f lampdemo -k ./
error: only one of -f or -k can be specified
ubuntu@DESKTOP-R5SBIQC:~/devops/kubernetes/deploy/yaml/apache_phpadmin_mysql/PHPMYADMIN_MYSQL$ kubectl apply -n lampdemo -k ./
secret/mysql-pass-6d2997f772 created
service/lamp created
service/lamp-mysql unchanged
persistentvolumeclaim/lamp-pv-claim created
persistentvolumeclaim/mysql-pv-claim unchanged
deployment.apps/lamp created
deployment.apps/lamp-mysql configured
ubuntu@DESKTOP-R5SBIQC:~/devops/kubernetes/deploy/yaml/apache_phpadmin_mysql/PHPMYADMIN_MYSQL$ kubectl get po -n lampdemo -w
NAME                                READY   STATUS    RESTARTS   AGE
lamp-d68899b5d-kjsk7                1/1     Running   0          17s
lamp-mysql-6f8bb57c87-6qwfq         1/1     Running   0          16s
^X^Cubuntu@DESKTOP-R5SBIQC:~/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 10.109.107.219 <pending>      80:31460/TCP     37s
lamp-mysql    ClusterIP     None          <none>         3306/TCP         37h
ubuntu@DESKTOP-R5SBIQC:~/devops/kubernetes/deploy/yaml/apache_phpadmin_mysql/PHPMYADMIN_MYSQL$ minikube service lamp -n lampdemo 2>&1
```

```
error: only one of -f or -k can be specified
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ubuntu@DESKTOP-R5SBIQC:~/devops/kubernetes/deploy/yaml/apache_phpadmin_mysql/PHPMYADMIN_MYSQL$ kubectl get po -n lampdemo -w
NAME                                READY   STATUS    RESTARTS   AGE
lamp-d68899b54-kjsk7                1/1     Running   0           17s
lamp-mysql-6f8bb57c87-6qwfq         1/1     Running   0           16s
^C
ubuntu@DESKTOP-R5SBIQC:~/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  10.109.107.219  <pending>     80:31460/TCP     37s
lamp-mysql ClusterIP    None          <none>        3306/TCP         37h
ubuntu@DESKTOP-R5SBIQC:~/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://192.168.49.2:31460 |
+-----+-----+-----+-----+
* Starting tunnel for service lamp.
+-----+-----+-----+-----+
| NAMESPACE | NAME | TARGET PORT | URL |
+-----+-----+-----+-----+
| lampdemo  | lamp | 80          | http://127.0.0.1:44339 |
+-----+-----+-----+-----+
* Opening service lampdemo/lamp in default browser...
* http://127.0.0.1:44339
* Because you are using a Docker driver on linux, the terminal needs to be open to run it.
```





