

Lab 4

1 / 11

Next →

How many PODs exist on the system?
In the current(default) namespace.

Terminal 1

Welcome to the KodeKloud Hands-On lab

All rights reserved

controlplane ~ → kubectl get pods
No resources found in default namespace.

controlplane ~ →

3 / 11

Next →

How many Deployments exist on the system?
In the current(default) namespace.

Terminal 1

Welcome to the KodeKloud Hands-On lab

All rights reserved

controlplane ~ → kubectl get pods
No resources found in default namespace.

controlplane ~ → kubectl get rs
No resources found in default namespace.

controlplane ~ → kubectl get deployments
No resources found in default namespace.

controlplane ~ →

4 / 11

Next →

How many Deployments exist on the system now?
We just created a Deployment! Check again!

Terminal 1

Welcome to the KodeKloud Hands-On lab

All rights reserved

controlplane ~ → kubectl get pods
No resources found in default namespace.

controlplane ~ → kubectl get rs
No resources found in default namespace.

controlplane ~ → kubectl get deployments
No resources found in default namespace.

controlplane ~ → kubectl get deployments

NAME	READY	UP-TO-DATE	AVAILABLE	AGE
frontend-deployment	0/4	4	0	4s

controlplane ~ →

53:48

Terminal 1

5 / 11

Next →

How many ReplicaSets exist on the system now?

4

1

0

2

3

All rights reserved

controlplane ~ → kubectl get pods
No resources found in default namespace.

controlplane ~ → kubectl get rs
No resources found in default namespace.

controlplane ~ → kubectl get deployments
No resources found in default namespace.

controlplane ~ → kubectl get deployments
NAME READY UP-TO-DATE AVAILABLE AGE
frontend-deployment 0/4 4 0 4s

controlplane ~ → kubectl get rs
NAME DESIRED CURRENT READY AGE
frontend-deployment-cd6b557c 4 4 0 32s

53:19

Terminal 1

Stop Lab

6 / 11

Next →

How many PODs exist on the system now?

4

2

0

3

controlplane ~ → kubectl get rs
No resources found in default namespace.

controlplane ~ → kubectl get deployments
No resources found in default namespace.

controlplane ~ → kubectl get deployments
NAME READY UP-TO-DATE AVAILABLE AGE
frontend-deployment 0/4 4 0 4s

controlplane ~ → kubectl get rs
NAME DESIRED CURRENT READY AGE
frontend-deployment-cd6b557c 4 4 0 32s

controlplane ~ → kubectl get pods
NAME READY STATUS RESTARTS AGE
frontend-deployment-cd6b557c-4mm48 0/1 ImagePullBackOff 0 4m56s
frontend-deployment-cd6b557c-5ngpw 0/1 ImagePullBackOff 0 4m56s
frontend-deployment-cd6b557c-5tsm8 0/1 ImagePullBackOff 0 4m56s
frontend-deployment-cd6b557c-j8cvn 0/1 ImagePullBackOff 0 4m56s

Next →

7 / 11

Out of all the existing PODs, how many are ready?

1

2

3

4

0

NAME READY UP-TO-DATE AVAILABLE AGE
frontend-deployment 0/4 4 0 4s

controlplane ~ → kubectl get rs
NAME DESIRED CURRENT READY AGE
frontend-deployment-cd6b557c 4 4 0 32s

controlplane ~ → kubectl get pods
NAME READY STATUS RESTARTS AGE
frontend-deployment-cd6b557c-4mm48 0/1 ImagePullBackOff 0 4m56s
frontend-deployment-cd6b557c-5ngpw 0/1 ImagePullBackOff 0 4m56s
frontend-deployment-cd6b557c-5tsm8 0/1 ImagePullBackOff 0 4m56s
frontend-deployment-cd6b557c-j8cvn 0/1 ImagePullBackOff 0 4m56s

controlplane ~ → kubectl get pods
NAME READY STATUS RESTARTS AGE
frontend-deployment-cd6b557c-4mm48 0/1 ImagePullBackOff 0 5m23s
frontend-deployment-cd6b557c-5ngpw 0/1 ImagePullBackOff 0 5m23s
frontend-deployment-cd6b557c-5tsm8 0/1 ImagePullBackOff 0 5m23s
frontend-deployment-cd6b557c-j8cvn 0/1 ImagePullBackOff 0 5m23s

controlplane ~ →

8 / 11

Next →

What is the image used to create the pods in the new deployment?

BUSYBOX777

BUSYBOX-POD

BUSYBOX888

NGINX

```
controlplane ~ → kubectl get pods
NAME                                READY   STATUS             RESTARTS   AGE
frontend-deployment-cd6b557c-4mm48 0/1     ImagePullBackOff    0           4m56s
frontend-deployment-cd6b557c-5ngpw 0/1     ImagePullBackOff    0           4m56s
frontend-deployment-cd6b557c-5tsm8 0/1     ImagePullBackOff    0           4m56s
frontend-deployment-cd6b557c-j8cvn 0/1     ImagePullBackOff    0           4m56s

controlplane ~ → kubectl get pods
NAME                                READY   STATUS             RESTARTS   AGE
frontend-deployment-cd6b557c-4mm48 0/1     ImagePullBackOff    0           5m23s
frontend-deployment-cd6b557c-5ngpw 0/1     ImagePullBackOff    0           5m23s
frontend-deployment-cd6b557c-5tsm8 0/1     ImagePullBackOff    0           5m23s
frontend-deployment-cd6b557c-j8cvn 0/1     ImagePullBackOff    0           5m23s

controlplane ~ → kubectl describe pod frontend-deployment-cd6b557c-4mm48 | grep Image
Image:          busybox888
Image ID:
Reason:         ImagePullBackOff
Warning Failed 3m26s (x5 over 6m12s) kubelet      Error: ErrImagePull
Warning Failed 61s (x21 over 6m11s) kubelet      Error: ImagePullBackOff
```

9 / 11

Next →

Why do you think the deployment is not ready?

Deployment was not created correctly

Kubernetes is faulty

Application has errors

The image BUSYBOX888 doesn't exist

```
controlplane ~ → kubectl get pods
NAME                                READY   STATUS             RESTARTS   AGE
frontend-deployment-cd6b557c-4mm48 0/1     ImagePullBackOff    0           4m56s
frontend-deployment-cd6b557c-5ngpw 0/1     ImagePullBackOff    0           4m56s
frontend-deployment-cd6b557c-5tsm8 0/1     ImagePullBackOff    0           4m56s
frontend-deployment-cd6b557c-j8cvn 0/1     ImagePullBackOff    0           4m56s

controlplane ~ → kubectl get pods
NAME                                READY   STATUS             RESTARTS   AGE
frontend-deployment-cd6b557c-4mm48 0/1     ImagePullBackOff    0           5m23s
frontend-deployment-cd6b557c-5ngpw 0/1     ImagePullBackOff    0           5m23s
frontend-deployment-cd6b557c-5tsm8 0/1     ImagePullBackOff    0           5m23s
frontend-deployment-cd6b557c-j8cvn 0/1     ImagePullBackOff    0           5m23s

controlplane ~ → kubectl describe pod frontend-deployment-cd6b557c-4mm48 | grep Image
Image:          busybox888
Image ID:
Reason:         ImagePullBackOff
Warning Failed 3m26s (x5 over 6m12s) kubelet      Error: ErrImagePull
Warning Failed 61s (x21 over 6m11s) kubelet      Error: ImagePullBackOff

controlplane ~ →
```

10 / 11

Next →

Create a new Deployment using the `deployment-definition-1.yaml` file located at `/root/`.

There is an issue with the file, so try to fix it.

Check

☐ Name: deployment-1

```
controlplane ~ → kubectl explain deployment | head -n3
GROUP:      apps
KIND:       Deployment
VERSION:    v1

controlplane ~ → vim deployment-definition-1.yaml

controlplane ~ →
```

10 / 11

Create a new Deployment using the `deployment-definition-1.yaml` file located at `/root/`.

There is an issue with the file, so try to fix it.

Check

Name: deployment-1

Terminal 1

```
KIND:      Deployment
VERSION:   v1

controlplane ~ → vim deployment-definition-1.yaml

controlplane ~ → kubectl get deployments
NAME                READY  UP-TO-DATE  AVAILABLE  AGE
frontend-deployment  0/4    4           0          9m6s

controlplane ~ → vim deployment-definition-1.yaml

controlplane ~ → kubectl create deployment deployment-1
error: required flag(s) "image" not set

controlplane ~ ✗ kubectl create deployment --image=deployment-1
error: exactly one NAME is required, got 0
See 'kubectl create deployment -h' for help and examples

controlplane ~ ✗ kubectl apply -f /root/deployment-definition-1.yaml
deployment.apps/deployment-1 created

controlplane ~ →
```

11 / 11

Create a new Deployment with the below attributes using your own deployment definition file.

Name: `httpd-frontend` ;
Replicas: `3` ;
Image: `httpd:2.4-alpine`

Check

Next →

Name: httpd-frontend

Terminal 1

```
controlplane ~ → kubectl get deployments
NAME                READY  UP-TO-DATE  AVAILABLE  AGE
frontend-deployment  0/4    4           0          9m6s

controlplane ~ → vim deployment-definition-1.yaml

controlplane ~ → kubectl create deployment deployment-1
error: required flag(s) "image" not set

controlplane ~ ✗ kubectl create deployment --image=deployment-1
error: exactly one NAME is required, got 0
See 'kubectl create deployment -h' for help and examples

controlplane ~ ✗ kubectl apply -f /root/deployment-definition-1.yaml
deployment.apps/deployment-1 created

controlplane ~ → vim deployment-definition-httpd.yaml

controlplane ~ → kubectl create -f deployment-definition-httpd.yaml
deployment.apps/httpd-frontend created

controlplane ~ →
```

11 / 11

Create a new Deployment with the below attributes using your own deployment definition file.

Name: `httpd-frontend` ;
Replicas: `3` ;
Image: `httpd:2.4-alpine`

Check

Next →

Name: httpd-frontend

Terminal 1

```
--
apiVersion: apps/v1
kind: Deployment
metadata:
  name: httpd-frontend
spec:
  replicas: 3
  selector:
    matchLabels:
      name: httpd-frontend
  template:
    metadata:
      labels:
        name: httpd-frontend
    spec:
      containers:
        - name: httpd-frontend
          image: httpd:2.4-alpine
```