

Lab 5

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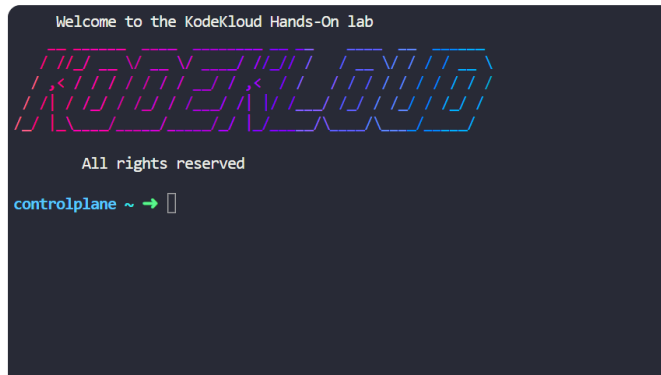


We have deployed a simple web application. Inspect the PODs and the Services

Wait for the application to fully deploy and view the application using the link called `Webapp Portal` above your terminal.

Ok

||



Hello from frontend-6765b99794-f7hrq!

Application Version: v1

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What is the current color of the web application?

Access the Webapp Portal.

blue

orange

green

yellow

||



Next →



Run the script named `curl-test.sh` to send multiple requests to test the web application. Take a note of the output.

Execute the script at `/root/curl-test.sh`.

```
bash /root/curl-test.sh
```

Ok

All rights reserved

```
controlplane ~ → bash /root/curl-test.sh
Hello, Application Version: v1 ; Color: blue OK
Hello, Application Version: v1 ; Color: blue OK
Hello, Application Version: v1 ; Color: blue OK
Hello, Application Version: v1 ; Color: blue OK
Hello, Application Version: v1 ; Color: blue OK
```

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Inspect the deployment in the `default` namespace and identify the number of PODs deployed by it

3

5

1

2

4

```
controlplane ~ ❌ kubectl get pods
```

NAME	READY	STATUS	RESTARTS	AGE
frontend-6765b99794-f7hrq	1/1	Running	0	2m20s
frontend-6765b99794-fkbnx	1/1	Running	0	2m20s
frontend-6765b99794-mgtpw	1/1	Running	0	2m20s
frontend-6765b99794-s598c	1/1	Running	0	2m20s

controlplane ~ →

56:02

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What container image is used to deploy the applications?

webapp

kodekloud/webapp-color:v1

simple-webapp

kodekloud/webapp-color:v2

kodekloud

Terminal 1

Webapp Portal ■ Stop Lab

```
Status: Running
IP: 10.22.0.11
IPs:
IP: 10.22.0.11
Controlled By: ReplicaSet/frontend-6765b99794
Containers:
  simple-webapp:
    Container ID: containerd://0299a09118b86ccefa03cc5139d9e034892542d63121a4c72735f2877324d9f
    Image: kodekloud/webapp-color:v1
    Image ID: docker.io/kodekloud/webapp-color@sha256:27b1e0cbd55a646824c231c896bf77f8278f2d335c4f2b47cbb258edf8281ceb
    Port: 8080/TCP
    Host Port: 0/TCP
    State: Running
      Started: Mon, 08 Sep 2025 17:43:08 +0000
    Ready: True
    Restart Count: 0
    Environment: <none>
    Mounts:
      /var/run/secrets/kubernetes.io/serviceaccount from kube-api-access-gdk9r (ro)
Conditions:
```


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Change the deployment strategy to `Recreate`

Delete and re-create the deployment if necessary. Only update the strategy type for the existing deployment.

Check

☐ Deployment Name: frontend

☐ Deployment Image: kodekloud/webapp-color:v2

☐ Strategy: Recreate

```
generation: 2
name: frontend
namespace: default
resourceVersion: "1142"
uid: 0f491a56-4457-4513-b477-3198c4a731cb
spec:
  minReadySeconds: 20
  progressDeadlineSeconds: 600
  replicas: 4
  revisionHistoryLimit: 10
  selector:
    matchLabels:
      name: webapp
  strategy:
    rollingUpdate:
      maxSurge: 25%
      maxUnavailable: 25%
    type: Recreate
  template:
    metadata:
      creationTimestamp: null
    -- INSERT (paste) --
```

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Upgrade the application by setting the image on the deployment to `kodekloud/webapp-color:v3`

Do not delete and re-create the deployment. Only set the new image name for the existing deployment.

Check

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☒ Deployment Name: frontend

☒ Deployment Image: kodekloud/webapp-

```
b57fbbf from 2 to 4
Normal ScalingReplicaSet 2m30s deployment-controller Scaled down replica set 765b99794 from 1 to 0

controlplane ~ → kubectl edit deployment frontend
error: deployments.apps "frontend" is invalid
A copy of your changes has been stored to "/tmp/kubectrl-edit-818209255.yaml"
error: Edit cancelled, no valid changes were saved.

controlplane ~ ✗ kubectl edit deployment frontend
error: deployments.apps "frontend" is invalid
A copy of your changes has been stored to "/tmp/kubectrl-edit-3381655963.yaml"
error: Edit cancelled, no valid changes were saved.

controlplane ~ ✗ kubectl edit deployment frontend
error: deployments.apps "frontend" is invalid
deployment.apps/frontend edited

controlplane ~ → kubectl edit deployment frontend
deployment.apps/frontend edited

controlplane ~ →
```

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Next →

Upgrade the application by setting the image on the deployment to `kodekloud/webapp-color:v3`

Do not delete and re-create the deployment. Only set the new image name for the existing deployment.

Check

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☒ Deployment Name: frontend

☒ Deployment Image: kodekloud/webapp-

```
spec:
  minReadySeconds: 20
  progressDeadlineSeconds: 600
  replicas: 4
  revisionHistoryLimit: 10
  selector:
    matchLabels:
      name: webapp
  strategy:
    type: Recreate
  template:
    metadata:
      creationTimestamp: null
      labels:
        name: webapp
    spec:
      containers:
        - image: kodekloud/webapp-color:v3
          imagePullPolicy: IfNotPresent
          name: simple-webapp
          ports:
```