Managing Kubernetes Applications with Deployments

00:53:06 Exit Lab Complete Lab

1 hour duration Practitioner Rate this lab

VIDEOS GUIDE

Managing Kubernetes Applications with Deployments

Introduction

Deployments offer a wide range of features for automating application management. In this lab, you will put your knowledge of deployments to the test. You will use an existing deployment to scale an application, as well as perform a rolling update.

Solution

Log in to the Control Plane Node server using the credentials provided:

```
ssh cloud_user@<PUBLIC_IP_ADDRESS>
```

Update the App to a New Version of the Code

1. Edit the `beebox-web` deployment:

   ```
   kubectl edit deployment beebox-web
   ```

2. Locate the Pod's container specification, and change the `1.0.1` image version tag to `1.0.2`:

   ```
   ...

   spec:
     containers:
     - image: acgorg/beebox-web:1.0.2
       imagePullPolicy: IfNotPresent
   ```

```
      name: web-server

  ...
```

3. Save and exit the file by pressing **Escape** followed by `:wq`.

4. Check the status of your deployment to watch the rolling update occur:

```
kubectl rollout status deployment.v1.apps/beebox-web
```

Scale the App to a Larger Number of Replicas

1. Scale the deployment to `5` replicas:

```
kubectl scale deployment.v1.apps/beebox-web --replicas=5
```

2. View the deployment to watch it scale up:

```
kubectl get deployment beebox-web
```

3. View the Pods:

```
kubectl get pods
```

Conclusion

Congratulations on successfully completing this hands-on lab!

Tools

Lab Diagram | Instant Terminal

Credentials

How do I connect?

Cloud Server Control Plane Node

Username

cloud_user

Password

R]%*B6+x

Control Plane Node Private IP

10.0.1.101

Control Plane Node Public IP

34.226.197.230

Launch Instant Terminal

How do I connect?

Additional Resources

You are working for a company called BeeBox, a subscription service that ships weekly shipments of bees to customers. The company is using Kubernetes to run their infrastructure of containerized applications.

One of these applications is a simple web server. It is being managed in Kubernetes using a deployment called `beebox-web`. Unfortunately, there are some problems with the app, and it is performing poorly under large user load.

Two steps will need to be taken to fix this issue. First, you will need to deploy a newer version of the app (`1.0.2`) that contains some performance improvements from the developers. Second, you will need to scale the app deployment, increasing the number of replicas from `2` to `5`.

Learning Objectives

0 of 2 completed

- [ ] Update the App to a New Version of the Code
- [ ] Scale the App to a Larger Number of Replicas