

如何快速部署Kubernetes应用

Kubernetes Master Class 第二期



• Logan

培训大纲

- 如何部署无状态应用
- 应用详情页、日志和shell
- 使用私有仓库中的镜像
- 如何在应用中使用secret和ConfigMap
- 如何部署有状态应用
- 升级应用
- 手动扩容应用
- 通过HPA自动扩容应用
- Kubernetes Service
- 如何通过Ingress暴露服务
- 如何通过LB暴露服务

如何部署无状态应用

通过Rancher UI部署Deployment，介绍Deployment的相关参数，以及最佳实践。

相关文档

- <https://kubernetes.io/docs/tasks/run-application/run-stateless-application-deployment/>
- <https://kubernetes.io/docs/reference/generated/kubernetes-api/v1.14/#deployment-v1-apps>

应用详情页、日志和shell

通过Rancher Ui查看应用详情，日志和命令行。介绍排查容器错误的步骤。

使用私有仓库中的镜像

通过Rancher UI部署私有镜像仓库中的镜像。

相关文档

- <https://kubernetes.io/docs/tasks/configure-pod-container/pull-image-private-registry/>
- <https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/#add-imagepullsecrets-to-a-service-account>

如何在应用中使用secret和ConfigMap

通过环境变量注入

通过文件挂载注入

相关文档

- <https://kubernetes.io/docs/concepts/configuration/secret/#using-secrets>
- <https://kubernetes.io/docs/tasks/configure-pod-container/configure-pod-configmap/>

如何部署有状态应用

部署单副本有状态应用

部署多副本有状态应用

相关文档

- <https://kubernetes.io/docs/tasks/run-application/run-single-instance-stateful-application/>
- <https://kubernetes.io/docs/tasks/run-application/run-replicated-stateful-application/>
- <https://kubernetes.io/docs/tasks/run-application/scale-stateful-set/>
- <https://kubernetes.io/docs/tasks/run-application/delete-stateful-set/>
- <https://kubernetes.io/docs/tasks/run-application/force-delete-stateful-set-pod/>

升级应用

滚动升级

相关文档

- <https://kubernetes.io/docs/tasks/run-application/rolling-update-replication-controller/>

手动扩容应用

容器扩容和缩容



通过HPA自动扩容应用

通过HPA基于CPU使用比率自动扩容Deployment

相关文档

- <https://kubernetes.io/docs/tasks/run-application/horizontal-pod-autoscale-walkthrough/>

Kubernetes Service

ClusterIP

NodePort

LoadBalancer

相关文档

- <https://kubernetes.io/docs/concepts/services-networking/service/>

如何通过Ingress暴露服务

相关文档

- <https://kubernetes.io/docs/concepts/services-networking/ingress/>
- <https://kubernetes.github.io/ingress-nginx/user-guide/nginx-configuration/annotations/>
- <https://medium.com/@domi.stoehr/canary-deployments-on-kubernetes-without-service-mesh-425b7e4cc862>

如何通过LB暴露服务

ClusterIP

NodePort

LoadBalancer

相关文档

- <https://kubernetes.io/docs/concepts/services-networking/service/>

An isometric illustration of a farm scene. In the foreground, there's a large blue barn with a red roof and a white silo. To the left, a green and blue building is visible. In the center, a small pond with a white windmill stands next to a brown cow and a white cow. The background features several yellow and green buildings with colorful blocks on top. The sky is light blue with white clouds.

THANK YOU
