Graphical user interface, text, application

Description automatically generated

controlplane ~ ➜ k run nginx-pod --image=nginx:alpine

pod/nginx-pod created

controlplane ~ ➜ k get pod

NAME READY STATUS RESTARTS AGE

nginx-pod 1/1 Running 0 69s

controlplane ~ ➜ k describe pod nginx-pod

Graphical user interface, text, application

Description automatically generated

controlplane ~ ➜ k run --help

controlplane ~ ➜ k run messaging --image=redis:alpine --labels="tier=msg"

controlplane ~ ➜ k describe pod messaging

Graphical user interface

Description automatically generated with medium confidence

controlplane ~ ➜ k create namespace apx-x9984574

namespace/apx-x9984574 created

controlplane ~ ➜ k get ns

NAME STATUS AGE

apx-x9984574 Active 5s

default Active 95m

kube-flannel Active 95m

kube-node-lease Active 95m

kube-public Active 95m

kube-system Active 95m

Text

Description automatically generated with medium confidence

k get nodes

NAME STATUS ROLES AGE VERSION

controlplane Ready control-plane 108m v1.26.0

controlplane ~ ➜ k get nodes -o json > /opt/outputs/nodes-z3444kd9.jsonGraphical user interface, text, application, email

Description automatically generated

controlplane ~ ➜ k get pods

NAME READY STATUS RESTARTS AGE

messaging 1/1 Running 0 28m

nginx-pod 1/1 Running 0 38m

controlplane ~ ➜ k get svc

NAME TYPE CLUSTER-IP EXTERNAL-IP PORT(S) AGE

kubernetes ClusterIP 10.96.0.1 <none> 443/TCP 121m

controlplane ~ ➜ k expose –help

controlplane ~ ➜ k expose pod messaging --port 6379 --name messaging-service

service/messaging-service exposed

controlplane ~ ➜ k get svc

NAME TYPE CLUSTER-IP EXTERNAL-IP PORT(S) AGE

kubernetes ClusterIP 10.96.0.1 <none> 443/TCP 122m

messaging-service ClusterIP 10.108.46.43 <none> 6379/TCP 7s

controlplane ~ ➜ k describe svc messaging-service

Name: messaging-service

Namespace: default

Labels: tier=msg

Annotations: <none>

Selector: tier=msg

Type: ClusterIP

IP Family Policy: SingleStack

IP Families: IPv4

IP: 10.108.46.43

IPs: 10.108.46.43

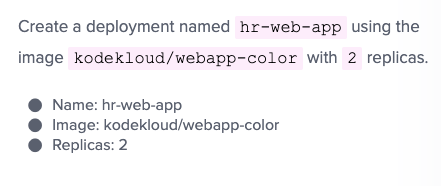
Port: <unset> 6379/TCP

TargetPort: 6379/TCP

Endpoints: 10.244.0.5:6379

Session Affinity: None

Events: <none>



controlplane ~ ➜ k create deployment hr-web-app --image=kodekloud/webapp-color --replicas=2

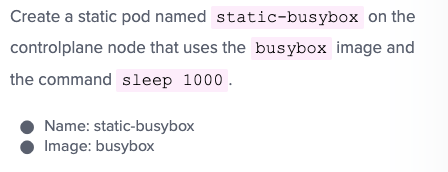
deployment.apps/hr-web-app created

controlplane ~ ➜ k get deploy

NAME READY UP-TO-DATE AVAILABLE AGE

hr-web-app 2/2 2 2 69s

controlplane ~ ➜ k describe deploy hr-web-app



controlplane ~ ➜ k run static-busybox --image=busybox --dry-run=client -o yaml --command -- sleep 1000 > static-busybox.yaml

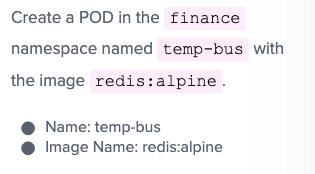
controlplane ~ ➜ mv static-busybox.yaml /etc/kubernetes/manifests/

controlplane ~ ➜ k get pods

NAME READY STATUS RESTARTS AGE

static-busybox-controlplane 1/1 Running 0 7s

controlplane ~ ➜ k describe pod static-busybox-controlplane



controlplane ~ ➜ k run temp-bus --image=redis:alpine -n finance

pod/temp-bus created

controlplane ~ ➜ k get pod -n finance

NAME READY STATUS RESTARTS AGE

temp-bus 1/1 Running 0 13s

controlplane ~ ➜ k describe pod temp-bus -n finance

Graphical user interface, text, application

Description automatically generated

controlplane ~ ➜ k get pods

NAME READY STATUS RESTARTS AGE

orange 0/1 Init:CrashLoopBackOff 2 (16s ago) 34s

static-busybox-controlplane 1/1 Running 0 4m12s

controlplane ~ ➜ k describe pod orange

controlplane ~ ➜ k logs orange init-myservice

sh: sleeeep: not found

controlplane ~ ➜ k edit pod orange

# Please edit the object below. Lines beginning with a '#' will be ignored,

# and an empty file will abort the edit. If an error occurs while saving this file will be

# reopened with the relevant failures.

#

apiVersion: v1

kind: Pod

metadata:

creationTimestamp: "2023-02-28T09:16:26Z"

name: orange

namespace: default

resourceVersion: "6747"

uid: 06320c73-a8e9-4a5e-9d7a-a21896c8ca49

spec:

containers:

- command:

- sh

- -c

- echo The app is running! && sleep 3600

image: busybox:1.28

imagePullPolicy: IfNotPresent

name: orange-container

resources: {}

terminationMessagePath: /dev/termination-log

terminationMessagePolicy: File

volumeMounts:

- mountPath: /var/run/secrets/kubernetes.io/serviceaccount

name: kube-api-access-827k6

readOnly: true

dnsPolicy: ClusterFirst

enableServiceLinks: true

initContainers:

- command:

- sh

- -c

- sleep 2;



image: busybox

imagePullPolicy: Always

name: init-myservice

resources: {}

terminationMessagePath: /dev/termination-log

terminationMessagePolicy: File

volumeMounts:

- mountPath: /var/run/secrets/kubernetes.io/serviceaccount

name: kube-api-access-827k6

"/tmp/kubectl-edit-2984148973.yaml" 145L, 4180C 1,1 Top

A copy of your changes has been stored to "/tmp/kubectl-edit-1817101667.yaml"

error: Edit cancelled, no valid changes were saved.

controlplane ~ ✖

controlplane ~ ✖ k replace --force -f /tmp/kubectl-edit-1817101667.yaml

pod "orange" deleted

pod/orange replaced

controlplane ~ ➜ k get pods --watch

NAME READY STATUS RESTARTS AGE

orange 1/1 Running 0 41s

static-busybox-controlplane 1/1 Running 0 13m

Text

Description automatically generated

controlplane ~ ➜ k get deploy

NAME READY UP-TO-DATE AVAILABLE AGE

hr-web-app 2/2 2 2 3m38s

controlplane ~ ➜ k expose deploy hr-web-app --name=hr-web-app-service --type NodePort --port 8080

service/hr-web-app-service exposed

controlplane ~ ➜ k get svc

NAME TYPE CLUSTER-IP EXTERNAL-IP PORT(S) AGE

hr-web-app-service NodePort 10.107.9.42 <none> 8080:30242/TCP 5s

kubernetes ClusterIP 10.96.0.1 <none> 443/TCP 64m

messaging-service ClusterIP 10.97.234.20 <none> 6379/TCP 6m26s

controlplane ~ ➜ k describe svc hr-web-app-service

Name: hr-web-app-service

Namespace: default

Labels: app=hr-web-app

Annotations: <none>

Selector: app=hr-web-app

Type: NodePort

IP Family Policy: SingleStack

IP Families: IPv4

IP: 10.107.9.42

IPs: 10.107.9.42

Port: <unset> 8080/TCP

TargetPort: 8080/TCP

NodePort: <unset> 30242/TCP

Endpoints: 10.244.0.6:8080,10.244.0.7:8080

Session Affinity: None

External Traffic Policy: Cluster

Events: <none>

controlplane ~ ➜ k edit svc hr-web-app-service

# Please edit the object below. Lines beginning with a '#' will be ignored,

# and an empty file will abort the edit. If an error occurs while saving this file will be

# reopened with the relevant failures.

#

apiVersion: v1

kind: Service

metadata:

creationTimestamp: "2023-02-28T09:50:56Z"

labels:

app: hr-web-app

name: hr-web-app-service

namespace: default

resourceVersion: "5500"

uid: e755835a-afa0-4375-a42b-bbd43d129a68

spec:

clusterIP: 10.107.9.42

clusterIPs:

- 10.107.9.42

externalTrafficPolicy: Cluster

internalTrafficPolicy: Cluster

ipFamilies:

- IPv4

ipFamilyPolicy: SingleStack

ports:



- nodePort: 30082

port: 8080

protocol: TCP

targetPort: 8080



selector:

app: hr-web-app

sessionAffinity: None

type: NodePort

status:

loadBalancer: {}

controlplane ~ ➜ k get svc

NAME TYPE CLUSTER-IP EXTERNAL-IP PORT(S) AGE

hr-web-app-service NodePort 10.107.9.42 <none> 8080:30082/TCP 3m38s

kubernetes ClusterIP 10.96.0.1 <none> 443/TCP 67m

messaging-service ClusterIP 10.97.234.20 <none> 6379/TCP 9m59s

Graphical user interface, text, application

Description automatically generated

controlplane ~ ➜ k get nodes

NAME STATUS ROLES AGE VERSION

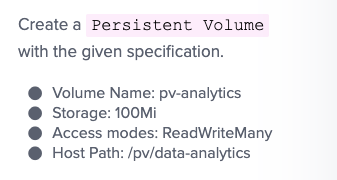
controlplane Ready control-plane 69m v1.26.0

controlplane ~ ✖ k get nodes -o jsonpath='{.items[\*].status.nodeInfo.osImage}'

Ubuntu 20.04.5 LTS

controlplane ~ ➜ k get nodes -o jsonpath='{.items[\*].status.nodeInfo.osImage}' > /opt/outputs/nodes\_os\_x43kj56.txt

controlplane ~ ➜ cat /opt/outputs/nodes\_os\_x43kj56.txt



controlplane ~ ➜ vi pv.yaml

apiVersion: v1

kind: PersistentVolume

metadata:

name: pv-analytics

spec:

capacity:

storage: 100Mi

accessModes:

- ReadWriteMany

hostPath:

path: /pv/data-analytics

controlplane ~ ➜ vi pv.yaml

controlplane ~ ➜ k create -f pv.yaml

persistentvolume/pv-analytics created

controlplane ~ ➜ k get pv

NAME CAPACITY ACCESS MODES RECLAIM POLICY STATUS CLAIM STORAGECLASS REASON AGE

pv-analytics 100Mi RWX Retain Available 8s

controlplane ~ ➜ k describe pv pv-analytics