apiVersion: apps/v1

kind: Deployment

metadata:

name: nginx-deployment

labels:

app: nginx

spec:

replicas: 3

selector:

matchLabels:

app: nginx

template:

metadata:

labels:

app: nginx

spec:

containers:

- name: nginx

image: sreeharshav/k8srlp:v2

ports:

- containerPort: 80

livenessProbe:

initialDelaySeconds: 10

periodSeconds: 5

httpGet:

path: /

port: 80

ku set image deployment nginx-deployment nginx=sreeharshav/testcontainer:v1

kubectl rollout history deployment/nginx-deployment

kubectl rollout undo deployment/nginx-deployment --to-revision=2

ku set image deployment nginx-deployment nginx=sreeharshav/testcontainer:v1 --record

root@ip-10-1-1-107:~# kubectl rollout history deployment/nginx-deployment

deployment.apps/nginx-deployment

REVISION CHANGE-CAUSE

1 <none>

4 <none>

5 <none>

6 kubectl set image deployment nginx-deployment nginx=sreeharshav/testcontainer:v1 --record=true

Annotation will also be added in the Resource YAML as below:

kubernetes.io/change-cause: kubectl set image deployment nginx-deployment nginx=sreeharshav/testcontainer:v1

https://learnk8s.io/kubernetes-rollbacks

CMD ["sh","-c","mkdir -p ~/my/new/directory/ && cd ~/my/new/directory && touch new.file"]

CANARY:

kubectl set image deployment hello name=sreeharshav/rollingupdate:v3

kubectl rollout pause deployment hello

kubectl rollout resume deployment kubia

ROLLINGUPDATE:

apiVersion: extensions/v1beta1

kind: Deployment

metadata:

name: nginx-deployment

labels:

app: nginx

spec:

minReadySeconds: 20

replicas: 3

selector:

matchLabels:

app: nginx

strategy:

rollingUpdate:

maxSurge: 1

maxUnavailable: 0

type: RollingUpdate

template:

metadata:

labels:

app: nginx

spec:

containers:

- name: nginx

image: sreeharshav/testcontainer:v1

ports:

- containerPort: 80

---

kind: Service

apiVersion: v1

metadata:

name: myservice

spec:

selector:

app: nginx

type: NodePort

ports:

- name: name-of-the-port

port: 8000

targetPort: 80

Rolling update without deployment:

1. It will be a manul update from one image to other image.

2. New RC will be created and old RC will be deleted.

3. Roll back needs to change again to the old image.

4. Overall manual process and RC rolling-update is deprecated.

Deployment Advanages:

1. It uses replicasets and replicasets automatically performs the rollinggupdates.

2. Rollback is easy as we can record the deployments.

3. We can use liveness and readyness probes to improve application availibility.

4. We can pause & resume the deployment which usefull Canary update.