Openshift Exercise

Open workstation -

lab install-troubleshoot start

source /usr/local/etc/ocp4.config

oc login -u kubeadmin -p ${RHT\_OCP4\_KUBEADM\_PASSWD} <https://api.ocp4.example.com:6443/>

oc new-project <username of yours> #select any username of yours or name. **Make sure you change it in every file given in below exercise**

oc project – to see in which project you are

oc project <username of yours>

oc adm policy add-scc-to-user anyuid –z default

vim pod.yaml

======================================

apiVersion: v1

kind: Pod

metadata:

name: apachepod

namespace: <username of yours>

labels:

env: prod

app: apache

spec:

containers:

- name: firstcontainer

image: quay.io/kushalsamota/httpd

=====================================

oc create -f pod.yaml

oc get pods

oc get pods -o wide

oc get pods --show-labels

oc describe pod apachepod

oc get pod apachepod -o yaml > pod1.yaml

vim pod1.yaml

exit from file

oc delete pod apachepod

oc get pods

#########################################################

vim pod.yaml

===========================================

apiVersion: v1

kind: Pod

metadata:

name: apachepod

namespace: <username of yours>

labels:

env: prod

app: apache

spec:

containers:

- name: firstcontainer

image: quay.io/kushalsamota/httpd

- name: secondcontainer

image: quay.io/kushalsamota/mysql

env:

- name: MYSQL\_ROOT\_PASSWORD

value: redhat

==============================================

save the file

oc create -f pod.yaml

oc get pods === two container will be running in a pod

oc get pods -o wide

oc describe pod apachepod

oc rsh apachepod

exit

oc exec -it apachepod -c secondcontainer bash

exit

oc logs apachepod -c firstcontainer

oc logs apachepod -c secondcontainer

oc delete pod apachepod

oc get pods

##################################################

vim pod.yaml

=============================================

apiVersion: v1

kind: Pod

metadata:

name: apachepod

namespace: <username of yours>

labels:

env: prod

app: apache

spec:

volumes:

- name: myvol

emptyDir: {}

containers:

- name: firstcontainer

image: quay.io/kushalsamota/httpd

volumeMounts:

- name: myvol

mountPath: /usr/local/apache2/htdocs

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oc create -f pod.yaml

oc get pods

oc describe pod apachepod

oc delete pod apachepod

#########################################

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vim rc.yaml

apiVersion: v1

kind: ReplicationController

metadata:

name: mysql

namespace: <username of yours>

spec:

replicas: 5

selector:

app: mysql

template:

metadata:

name: mysqlpod

labels:

app: mysql

spec:

containers:

- name: mysqlcontainer

image: quay.io/kushalsamota/mysql

env:

- name: MYSQL\_ROOT\_PASSWORD

value: redhat

save the file

======================================

oc create -f rc.yaml

oc get all

oc scale rc/mysql --replicas=10

oc get pods

oc scale rc/mysql --replicas=1

oc get pods

oc delete rc mysql

oc get all

###########################################

oc project <username of yours>

vim dep.yaml

apiVersion: apps/v1

kind: Deployment

metadata:

name: mysql-deployment

labels:

app: mysql

namespace: <username of yours>

spec:

replicas: 10

selector:

matchLabels:

app: mysql

template:

metadata:

labels:

app: mysql

spec:

containers:

- name: mysql

image: docker.io/mysql:5.7.40

ports:

- containerPort: 3306

env:

name: MYSQL\_ROOT\_PASSWORD

value: redhat

oc create -f dep.yaml

oc get all

oc set image deployment mysql-deployment mysql=docker.io/mysql:[8.0.31-debian](https://github.com/docker-library/mysql/blob/e0d43b2a29867c5b7d5c01a8fea30a086861df2b/8.0/Dockerfile.debian) --record

oc rollout history deployment mysql-deployment

oc get all

oc set image deployment mysql-deployment mysql=docker.io/mysql:[8.0.31-oracle](https://github.com/docker-library/mysql/blob/e0d43b2a29867c5b7d5c01a8fea30a086861df2b/8.0/Dockerfile.oracle) --record

oc rollout history deployment mysql-deployment

oc get all

oc rollout history deployment mysql-deployment

oc get all

oc rollout undo deployment mysql-deployment --to-revision=2

oc rollout history deployment mysql-deployment

oc delete deployment mysql-deployment

###############################################

secret practical

vim dep.yaml

apiVersion: apps/v1

kind: Deployment

metadata:

name: mysql-deployment

namespace: <username of yours>

spec:

replicas: 1

selector:

matchLabels:

app: mysql

template:

metadata:

labels:

app: mysql

spec:

containers:

- name: mysql

image: quay.io/kushalsamota/mysql

env:

- name: MYSQL\_ROOT\_PASSWORD

valueFrom:

secretKeyRef:

name: mysqlpassword

key: passwordofmysql

oc create secret generic mysqlpassword --from-literal=passwordofmysql=redhat

oc create -f dep.yaml

oc describe deployment mysql-deployment

oc describe secret mysqlpassword

oc delete deployment mysql-deployment

oc delete secret mysqlpassword

#####################################

configmap

vim dep.yaml

apiVersion: apps/v1

kind: Deployment

metadata:

name: mysql-deployment

namespace: <username of yours>

spec:

replicas: 1

selector:

matchLabels:

app: mysql

template:

metadata:

labels:

app: mysql

spec:

containers:

- name: mysql

image: quay.io/kushalsamota/mysql

env:

- name: MYSQL\_ROOT\_PASSWORD

valueFrom:

configMapKeyRef:

name: mysqlpassword

key: passwordofmysql

oc create configmap mysqlpassword --from-literal=passwordofmysql=redhat

oc get configmap

oc describe configmap mysqlpassword

oc create -f dep.yaml

oc describe deployment mysql-deployment

oc delete deployment mysql-deployment

oc delete configmap mysqlpassword