Exercise 14

<u>OpenShift: Working with Deployments</u>

Q1.

a.
Create a deployment using docker.io/dtg2468/rhel-ubi-9 using CLI method with the name "deploy1" and pod replicas as "4".

b.
Create a deployment using docker.io/dtg2468/custom-mysql:latest using Dry Run approach with the name "deploy2" and pod replicas as "2".

c.
Create a deployment using quay.io/dtg2468/my-httpd:v1.0 using the OpenShift dashboard method with the name as "deploy3" and pod replicas as "3".

Solutions

Q1.

a.

```
[root@workstation ~]# oc create deployment deploy1 --image docker.io/dtg2468/rhel-ubi-9 --replicas 4
Warning: would violate PodSecurity "restricted:v1.24": allowPrivilegeEscalation != false (container "rhel
-ubi-9" must set securityContext.allowPrivilegeEscalation=false), unrestricted capabilities (container "r
hel-ubi-9" must set securityContext.capabilities.drop=["ALL"]), runAsNonRoot != true (pod or container "r
hel-ubi-9" must set securityContext.runAsNonRoot=true), seccompProfile (pod or container "rhel-ubi-9" mus
t set securityContext.seccompProfile.type to "RuntimeDefault" or "Localhost")
deployment.apps/deploy1 created
[root@workstation ~]# oc get pods
NAME                    READY   STATUS             RESTARTS   AGE
deploy1-f7f955fbd-nrcvw   0/1     ContainerCreating   0          3s
deploy1-f7f955fbd-s5rdf   0/1     ContainerCreating   0          3s
deploy1-f7f955fbd-sx6hh   0/1     ContainerCreating   0          3s
deploy1-f7f955fbd-vtr78   0/1     ContainerCreating   0          3s
```

```
[root@workstation ~]# oc get pods
NAME                    READY   STATUS      RESTARTS   AGE
deploy1-f7f955fbd-6kq69   0/1     Completed   0          6s
deploy1-f7f955fbd-pnhr7   0/1     Completed   0          6s
deploy1-f7f955fbd-sbh24   0/1     Completed   0          6s
deploy1-f7f955fbd-sr7dl   0/1     Completed   0          6s
[root@workstation ~]#
```

b.

```
[root@workstation ~]# oc create deployment deploy2 --image docker.io/dtg2468/custom-mysql:latest --replic
as 2 --dry-run=client -o yaml > deploy.yaml
[root@workstation ~]# vim deploy.yaml
```

```yaml
apiVersion: apps/v1
kind: Deployment
metadata:
  creationTimestamp: null
  labels:
    app: deploy2
  name: deploy2
spec:
  replicas: 2
  selector:
    matchLabels:
      app: deploy2
  strategy: {}
  template:
    metadata:
      creationTimestamp: null
      labels:
        app: deploy2
    spec:
      containers:
      - image: docker.io/dtg2468/custom-mysql:latest
        name: custom-mysql
        env:
                - name: MYSQL_ROOT_PASSWORD
                  value: redhat
        resources: {}
status: {}
~
~
```

```
[root@workstation ~]# oc create -f deploy.yaml
Warning: would violate PodSecurity "restricted:v1.24": allowPrivilegeEscalation != false (container "cust
om-mysql" must set securityContext.allowPrivilegeEscalation=false), unrestricted capabilities (container
"custom-mysql" must set securityContext.capabilities.drop=["ALL"]), runAsNonRoot != true (pod or containe
r "custom-mysql" must set securityContext.runAsNonRoot=true), seccompProfile (pod or container "custom-my
sql" must set securityContext.seccompProfile.type to "RuntimeDefault" or "Localhost")
deployment.apps/deploy2 created
[root@workstation ~]# oc get pods
NAME                      READY   STATUS    RESTARTS   AGE
deploy2-77bdd88cc9-c4jwh  1/1     Running   0          6s
deploy2-77bdd88cc9-cgh7d  1/1     Running   0          6s
```

C.

admin ▾

Administrator ▾

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Project: default ▾

Deployments › Deployment details

Ⓓ deploy3

Actions ▾

Details   Metrics   YAML   ReplicaSets   Pods   Environment   Events

Deployment details

3
Pods

Name
deploy3

Namespace
Ⓝ default

Labels   Edit ✎
No labels

Pod selector
🔍 app=deploy3

Node selector
No selector

Tolerations
0 tolerations ✎

Update strategy
RollingUpdate

Max unavailable
25% of 3 pods

Max surge
25% greater than 3 pods

Progress deadline seconds
600 seconds

Min ready seconds
Not configured

PodDisruptionBudgets
No PodDisruptionBudgets