Application Scale UP

Tuesday, January 5, 2021　　2:31 PM

Application Scale UP

Replicaset Scale UP

```
[root@master ~]# vi replicaset.yml
apiVersion: apps/v1
kind: ReplicaSet
metadata:
  labels:
    run: nginx
  name: nginx-replicaset
spec:
  replicas: 2
  selector:
    matchLabels:
      run: nginx
  template:
    metadata:
      labels:
        run: nginx
    spec:
      containers:
      - image: nginx
        name: nginx
~
```

```
[root@master ~]# kubectl create -f replicaset.yml
replicaset.apps/nginx-replicaset created
```

```
[root@master ~]# kubectl get pods
NAME                    READY   STATUS    RESTARTS   AGE
nginx-replicaset-5k2vc  1/1     Running   0          12s
nginx-replicaset-tc4nr  1/1     Running   0          12s
```

First way : Use imperative way to use replicaset name

 # kubectl scale --replicas=6 replicaset nginx-replicaset

```
[root@master ~]# kubectl scale --replicas=6 replicaset nginx-replicaset
replicaset.apps/nginx-replicaset scaled
```

```
[root@master ~]# kubectl get pods
NAME                    READY   STATUS    RESTARTS   AGE
nginx-replicaset-5k2vc  1/1     Running   0          3m56s
nginx-replicaset-8r94k  1/1     Running   0          40s
nginx-replicaset-b8sl5  1/1     Running   0          40s
nginx-replicaset-fn4dw  1/1     Running   0          40s
nginx-replicaset-tc4nr  1/1     Running   0          3m56s
nginx-replicaset-wjtfs  1/1     Running   0          40s
[root@master ~]#
```

Second way: Change in file and then use replace keyword

```
[root@master ~]# kubectl replace -f replicaset.yml
replicaset.apps/nginx-replicaset replaced
```

```
[root@master ~]# kubectl get pods
NAME                      READY   STATUS    RESTARTS   AGE
nginx-replicaset-5k2vc    1/1     Running   0          6m55s
nginx-replicaset-848sq    1/1     Running   0          24s
nginx-replicaset-8r94k    1/1     Running   0          3m39s
nginx-replicaset-d7x7l    1/1     Running   0          24s
nginx-replicaset-dmxkf    1/1     Running   0          24s
nginx-replicaset-tc4nr    1/1     Running   0          6m55s
```

Third way : Imperative way by using yml file

kubectl scale --replicas=6 replicaset.yml

```
[root@master ~]# kubectl scale --replicas=6 -f replicaset.yml
replicaset.apps/nginx-replicaset scaled
```

```
[root@master ~]# kubectl get pods
NAME                      READY   STATUS    RESTARTS   AGE
nginx-replicaset-2qljw    1/1     Running   0          40s
nginx-replicaset-5k2vc    1/1     Running   0          10m
nginx-replicaset-6rp22    1/1     Running   0          40s
nginx-replicaset-h4tct    1/1     Running   0          40s
nginx-replicaset-tc4nr    1/1     Running   0          10m
nginx-replicaset-xkwsk    1/1     Running   0          40s
```

Deployments Scale UP

```
[root@master ~]# cat deployments.yml
apiVersion: apps/v1
kind: Deployment
metadata:
  labels:
    run: nginx
  name: nginx-deploy
spec:
  replicas: 2
  selector:
    matchLabels:
      run: nginx
  template:
    metadata:
      labels:
        run: nginx
    spec:
      containers:
      - image: nginx
        name: nginx
```

```
[root@master ~]# kubectl get all
NAME                                  READY   STATUS    RESTARTS   AGE
pod/nginx-deploy-598b589c46-frrgv     1/1     Running   0          59s
pod/nginx-deploy-598b589c46-lwrd2     1/1     Running   0          59s

NAME                 TYPE        CLUSTER-IP   EXTERNAL-IP   PORT(S)   AGE
service/kubernetes   ClusterIP   10.96.0.1    <none>        443/TCP   13h

NAME                           READY   UP-TO-DATE   AVAILABLE   AGE
deployment.apps/nginx-deploy   2/2     2            2           59s

NAME                                      DESIRED   CURRENT   READY   AGE
replicaset.apps/nginx-deploy-598b589c46   2         2         2       59s
```

Deployment scale up with 4 replicas

kubectl scale --replicas=4 deployment nginx-deploy

```
[root@master ~]# kubectl scale --replicas=4 deployment nginx-deploy
deployment.apps/nginx-deploy scaled
```

Status of pod, deployment, replicaset

```
[root@master ~]# kubectl get all
NAME                                  READY   STATUS    RESTARTS   AGE
pod/nginx-deploy-598b589c46-9hjcv     1/1     Running   0          11s
pod/nginx-deploy-598b589c46-frrgv     1/1     Running   0          2m13s
pod/nginx-deploy-598b589c46-gbtlk     1/1     Running   0          11s
pod/nginx-deploy-598b589c46-lwrd2     1/1     Running   0          2m13s

NAME                 TYPE        CLUSTER-IP   EXTERNAL-IP   PORT(S)   AGE
service/kubernetes   ClusterIP   10.96.0.1    <none>        443/TCP   13h

NAME                           READY   UP-TO-DATE   AVAILABLE   AGE
deployment.apps/nginx-deploy   4/4     4            4           2m13s

NAME                                      DESIRED   CURRENT   READY   AGE
replicaset.apps/nginx-deploy-598b589c46   4         4         4       2m13s
```