

```
root@kubernetes-master:/home/ubuntu# vi deployment.yaml
root@kubernetes-master:/home/ubuntu# kubectl create -f deployment.yaml STATUS
deployment.apps/nginx-deployment created
root@kubernetes-master:/home/ubuntu# kubectl get deployments
NAME nginx-deployment 5/5 5 AVAILABLE AGE
nginx-deployment 5/5 5 9s
root@kubernetes-master:/home/ubuntu# kubectl describe deployments
Name: nginx-deployment
Namespace: default (10... bytes of data.
CreationTimestamp: Sat, 11 Apr 2020 20:44:37 +0000 [64 time=0.529 ms
Labels: app=kubernetes-app=nginx (0.189) [tcp_seq=2 ttl=64 time=0.510 ms
Annotations: kubernetes.io/deployment.kubernetes.io/revision: 1 time=0.513 ms
Selector: app=nginx
Replicas: 5-master ping 5 desired | 5 updated | 5 total | 5 available | 0 unavailable
StrategyType: RollingUpdate RollingUpdateRet back, time 2044ms
MinReadySeconds: = 0.510 / 0.51 / 0.529 / 0.020 ms
RollingUpdateStrategy: 25% max unavailable, 25% max surge en kb4qg9.x3irst|sbkn2o5
Pod Template: 934ce8dccb3b57b9c92ac49e27f5eb370ba2e3677beef67c
Labels: app=nginx-16892 join.go[346] [preflight] WARNING: JoinControlPlane control
Containers: 1
- Name: nginx-running preflight checks
Image: NG ISD/nginx:1.14.2eck]: detected "cgroupls" as the Docker cgroup driver
Port: guide a80/TCP :/kubernetes.io/docs/setup/cr/
Host Port: 80/TCP ight) [preflight] Some local errors occurred:
Environment: none--etc-kubernetes-kubelct.conf) : /etc/kubernetes/kubelet.co
Mounts: Port-1none-Port 18250 is in use
Volumes: FileAve-none--etc-kubernetes-pki-ca.crt) : /etc/kubernetes/pki/ca.crt 9
Conditions: you know what you are doing, you can make a check non-fatal with "--ign
Type: stack tr Status Reason execute with --v=5 or higher
Available: 5/5 True MinimumReplicasAvailable
Available: 5/5 True MinimumReplicasAvailable
```


Step 3 - Rollback a Deployment

kubectl rollout undo deployment.v1.apps/nginx-deployment

```
root@kubernetes-master:/home/ubuntu# kubectl rollout undo deployment.v1.apps/nginx-deployment
deployment.apps/nginx-deployment rolled back
```

Validate version of NGINX Image

kubectl describe deployments

```
root@kubernetes-master:/home/ubuntu# kubectl describe deployments
Name:      ID          IMAGE          CONTAINER      AND          CREATED          STATUS          PORTS
Namespace: /home/ubuntu# default/apoff -a
CreationTimestamp: /home/ubuntu# Sat, 11 Apr 2020 20:44:37 +0000
Labels:    /home/ubuntu# app=nginx
Annotations: /home/ubuntu# deployment.kubernetes.io/revision: 3
Selector:  /home/ubuntu# app=nginx
Replicas:  /home/ubuntu# 5 desired | 5 updated | 5 total | 5 available | 0 unavailable
StrategyType: /home/ubuntu# RollingUpdate
StrategyOptions: /home/ubuntu# RollingUpdate
  MaxUnavailable: 25%
  MaxSurge: 25%
PodTemplateSpec:
  Labels: app=nginx
  Containers:
    nginx:
      Image: nginx:1.14.2
      Ports:
        - containerPort: 80/TCP
      Environment:
        - name: MOUNTS
          value: not set
      Mounts:
        - name: MOUNTS
          value: not set
      Volumes:
        - name: MOUNTS
          value: not set
```

Step 4 - Scale deployment from YAML File, change replica from 5 to 10

vi deployment.yaml

```
apiVersion: apps/v1
kind: Deployment
metadata:
  name: nginx-deployment
  labels:
    app: nginx
spec:
  replicas: 10
  selector:
    matchLabels:
      app: nginx
  template:
    metadata:
      labels:
        app: nginx
    spec:
      containers:
        - name: nginx
          image: nginx:1.14.2
          ports:
            - containerPort: 80
```

kubectl apply -f deployment.yaml

Valide running Pods

kubectl get pods -o wide

```
root@kubernetes-master:/home/ubuntu# kubectl get pods -o wide
NAME                                READY   STATUS    RESTARTS   AGE   IP              NODE             NOMINATED NODE   READINESS GATES
nginx-deployment-6b474476c4-2dzsx   1/1     Running   0           93s   10.244.2.31     worker-2          <none>            <none>
nginx-deployment-6b474476c4-2x64g   1/1     Running   0           24s   10.244.2.32     worker-2          <none>            <none>
nginx-deployment-6b474476c4-64r6g   1/1     Running   0           24s   10.244.2.33     worker-2          <none>            <none>
nginx-deployment-6b474476c4-96tlf   1/1     Running   0           92s   10.244.3.35     worker-1          <none>            <none>
nginx-deployment-6b474476c4-gh8cr   1/1     Running   0           24s   10.244.2.34     worker-2          <none>            <none>
nginx-deployment-6b474476c4-jwsz7   1/1     Running   0           24s   10.244.3.39     worker-1          <none>            <none>
nginx-deployment-6b474476c4-lx29p   1/1     Running   0           24s   10.244.3.38     worker-1          <none>            <none>
nginx-deployment-6b474476c4-m47d6   1/1     Running   0           95s   10.244.3.33     worker-1          <none>            <none>
nginx-deployment-6b474476c4-r4s5g   1/1     Running   0           95s   10.244.3.34     worker-1          <none>            <none>
nginx-deployment-6b474476c4-rl2jr   1/1     Running   0           24s   10.244.2.35     worker-2          <none>            <none>
nginx-deployment-6b474476c4-rsh6m   1/1     Running   0           95s   10.244.2.30     worker-2          <none>            <none>
nginx-deployment-6b474476c4-smk4s   1/1     Running   0           24s   10.244.3.36     worker-1          <none>            <none>
nginx-deployment-6b474476c4-vlx5r   1/1     Running   0           24s   10.244.3.37     worker-1          <none>            <none>
nginx-deployment-6b474476c4-wll5j   1/1     Running   0           24s   10.244.3.40     worker-1          <none>            <none>
nginx-deployment-6b474476c4-xxj9t   1/1     Running   0           24s   10.244.2.36     worker-2          <none>            <none>
```

```
kubectl scale deployment.v1.apps/nginx-deployment --replicas=15
```

```
root@kubernetes-master:/home/ubuntu# kubectl scale deployment.v1.apps/nginx-deployment --replicas=15
deployment.apps/nginx-deployment scaled: 10mp_seq=1 ttl=64 time=0.529 ms
root@kubernetes-master:/home/ubuntu# kubectl get deployments
NAME                                READY   UP-TO-DATE   AVAILABLE   AGE
nginx-deployment                    15/15   15            15           19m
```

Kubectl get pods -o wide

```

root@kubernetes-master:/home/ubuntu# kubectl get pods -o wide
NAME                                READY   STATUS    RESTARTS   AGE   IP              NODE     NOMINATED NODE   READINESS GATES
nginx-deployment-6b474476c4-2dzsx  1/1    Running   0           1m    10.244.2.31     worker-2   <none>            <none>
nginx-deployment-6b474476c4-2x64g  1/1    Running   0           1m    10.244.2.32     worker-2   <none>            <none>
nginx-deployment-6b474476c4-64r6g  1/1    Running   0           1m    10.244.2.33     worker-2   <none>            <none>
nginx-deployment-6b474476c4-96tlf  1/1    Running   0           1m    10.244.3.35     worker-1   <none>            <none>
nginx-deployment-6b474476c4-gh8cr  1/1    Running   0           1m    10.244.2.34     worker-2   <none>            <none>
nginx-deployment-6b474476c4-m47d6  1/1    Running   0           1m    10.244.3.33     worker-1   <none>            <none>
nginx-deployment-6b474476c4-mdpcc  1/1    Running   0           1m    10.244.3.42     worker-1   <none>            <none>
nginx-deployment-6b474476c4-r4s5g  1/1    Running   0           1m    10.244.3.34     worker-1   <none>            <none>
nginx-deployment-6b474476c4-rl2jr  1/1    Running   0           1m    10.244.2.35     worker-2   <none>            <none>
nginx-deployment-6b474476c4-rsh6b  1/1    Running   0           1m    10.244.2.30     worker-2   <none>            <none>
nginx-deployment-6b474476c4-swxcv  1/1    Running   0           1m    10.244.3.44     worker-1   <none>            <none>
nginx-deployment-6b474476c4-tbds5  1/1    Running   0           1m    10.244.3.45     worker-1   <none>            <none>
nginx-deployment-6b474476c4-vw4f4  1/1    Running   0           1m    10.244.3.41     worker-1   <none>            <none>
nginx-deployment-6b474476c4-xxj9t  1/1    Running   0           1m    10.244.2.36     worker-2   <none>            <none>
nginx-deployment-6b474476c4-z9mzn  1/1    Running   0           1m    10.244.3.43     worker-1   <none>            <none>
root@kubernetes-master:/home/ubuntu#

```

```
Kubectl delete deployment nginx-deployment
```

```
root@kubernetes-master:/home/ubuntu# kubectl delete deployment nginx-deployment
deployment.apps "nginx-deployment" deleted
root@kubernetes-master:/home/ubuntu#
```

