

DR@DESKTOP-2PMUM4M MINGW64 /d/Mahfuz/Vagrant/kubernetes/yamls (master)

\$ kubectl get nodes

NAME	STATUS	ROLES	AGE	VERSION
kmaster	Ready	control-plane	46h	v1.26.0
kworker1	Ready	<none>	46h	v1.26.0
kworker2	Ready	<none>	46h	v1.26.0

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\$ kubectl label node kworker2 demoserver=true

bash: kubectl: command not found

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\$ kubectl label node kworker2 demoserver=true

node/kworker2 labeled

DR@DESKTOP-2PMUM4M MINGW64 /d/Mahfuz/Vagrant/kubernetes/yamls (master)

\$ kubectl get node kworker2 --show-labels

NAME	STATUS	ROLES	AGE	VERSION	LABELS
kworker2	Ready	<none>	46h	v1.26.0	

beta.kubernetes.io/arch=amd64,beta.kubernetes.io/os=linux,demoserver=true,kubernetes.io/arch=amd64,kubernetes.io/hostname=kworker2,kubernetes.io/os=linux

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\$ vi 1-nginx-deployment.yaml

```
apiVersion: apps/v1
kind: Deployment
metadata:
  labels:
    run: nginx
  name: nginx-deploy
spec:
  replicas: 1
  selector:
    matchLabels:
      run: nginx
  template:
    metadata:
      labels:
        run: nginx
    spec:
      containers:
      - image: nginx
        name: nginx
      nodeSelector:
        demosever: 'true'
```

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\$ kubectl get all -o wide

NAME	STATUS	RESTARTS	AGE	IP
pod/nginx-deploy-68b77bf746-vs6j9	Running	0	4m1s	
192.168.77.131				

NAME	TYPE	CLUSTER-IP	EXTERNAL-IP	PORT(S)	AGE
service/kubernetes	ClusterIP	10.96.0.1	<none>	443/TCP	47h
<none>					

NAME	READY	UP-TO-DATE	AVAILABLE	AGE
CONTAINERS				
deployment.apps/nginx-deploy	1/1	1	1	4m2s
nginx				nginx

NAME	DESIRED	CURRENT	READY	AGE
CONTAINERS	IMAGES	SELECTOR		
replicaset.apps/nginx-deploy-68b77bf746	1	1	1	4m1s
nginx	nginx	pod-template-hash=68b77bf746,run=nginx		

DR@DESKTOP-2PMUM4M MINGW64 /d/Mahfuz/Vagrant/kubernetes/yamls (master)

\$ kubectl describe pod nginx-deploy-68b77bf746-vs6j9

```

Name:          nginx-deploy-68b77bf746-vs6j9
Namespace:     default
Priority:       0
Service Account: default
Node:          kworker2/172.16.16.102
Start Time:    wed, 12 Jul 2023 11:35:50 +0600
Labels:        pod-template-hash=68b77bf746
                run=nginx
Annotations:    cni.projectcalico.org/containerID: 9931500072cbfa30db78b6d88c9c8ea08640a4b461857252846253f6d2d523ff
                cni.projectcalico.org/podIP: 192.168.77.131/32
                cni.projectcalico.org/podIPs: 192.168.77.131/32
Status:        Running
IP:            192.168.77.131
IPs:
  IP:          192.168.77.131
Controlled By: ReplicaSet/nginx-deploy-68b77bf746
Containers:
  nginx:
    Container ID:  containerd://aacbc82a3fe20b8945aa86ec83441ac36fb3b6263b104c87d2557899941e37d0
    Image:         nginx
    Image ID:      docker.io/library/nginx@sha256:08bc36ad52474e528cc1ea3426b5e3f4bad8a130318e3140d6cfe29c8892c7ef
    Port:         <none>
    Host Port:    <none>
    State:        Running
      Started:    wed, 12 Jul 2023 11:35:54 +0600
    Ready:        True
    Restart Count: 0
    Environment:  <none>
    Mounts:
      /var/run/secrets/kubernetes.io/serviceaccount from kube-api-access-r7pmq (ro)
Conditions:
  Type             Status
  Initialized       True
  Ready             True
  ContainersReady   True
  PodScheduled      True
Volumes:
  kube-api-access-r7pmq:
    Type:          Projected (a volume that contains injected data from multiple sources)
    TokenExpirationSeconds: 3607
    ConfigMapName:    kube-root-ca.crt
    ConfigMapOptional: <nil>
    DownwardAPI:      true
QoS Class:          BestEffort
Node-Selectors:
Tolerations:        node.kubernetes.io/not-ready:NoExecute op=Exists for 300s
                    node.kubernetes.io/unreachable:NoExecute op=Exists for 300s
Events:
  Type    Reason      Age    From    Message

```

```

-----
Normal Scheduled 4m24s default-scheduler Successfully assigned
default/nginx-deploy-68b77bf746-vs6j9 to kworker2
Normal Pulling 4m23s kubelet Pulling image "nginx"
Normal Pulled 4m20s kubelet Successfully pulled image
"nginx" in 3.647894519s (3.647901251s including waiting)
Normal Created 4m20s kubelet Created container nginx
Normal Started 4m20s kubelet Started container nginx

```

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```

$ kubectl scale deploy nginx-deploy --replicas=2
deployment.apps/nginx-deploy scaled

```

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```

$ kubectl get all -o wide
NAME                                READY   STATUS    RESTARTS   AGE      IP
NODE                                READINESS GATES
pod/nginx-deploy-68b77bf746-27bc9  1/1     Running   0           4m29s    192.168.77.133
192.168.77.133 kworker2    <none>
pod/nginx-deploy-68b77bf746-8692l  1/1     Running   0           114s     192.168.77.134
192.168.77.134 kworker2    <none>

NAME                                TYPE          CLUSTER-IP   EXTERNAL-IP   PORT(S)    AGE
SELECTOR
service/kubernetes                  ClusterIP     10.96.0.1    <none>         443/TCP    47h
<none>

NAME                                READY   UP-TO-DATE   AVAILABLE   AGE
CONTAINERS IMAGES SELECTOR
deployment.apps/nginx-deploy        2/2     2             2           4m29s    nginx
nginx run=nginx

NAME                                DESIRED   CURRENT   READY   AGE
CONTAINERS IMAGES SELECTOR
replicaset.apps/nginx-deploy-68b77bf746  2         2         2       4m29s
nginx nginx pod-template-hash=68b77bf746,run=nginx

```

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```

$ kubectl delete deploy nginx-deploy
deployment.apps "nginx-deploy" deleted

```

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```

$ kubectl get all -o wide
NAME                                TYPE          CLUSTER-IP   EXTERNAL-IP   PORT(S)    AGE
SELECTOR
service/kubernetes                  ClusterIP     10.96.0.1    <none>         443/TCP    47h
<none>

```

