

KubeLocal: Hands-On Kubernetes Workshop

Install Kubernetes Locally

Screenshot or pasted outputs of both commands

```
sotir@sotir-Dell:~$ kubectl get nodes
NAME          STATUS    ROLES          AGE    VERSION
minikube      Ready    control-plane  14h    v1.33.1
sotir@sotir-Dell:~$ kubectl get pods -n kube-system
NAME                                READY   STATUS    RESTARTS   AGE
coredns-674b8bbfcf-lpm97            0/1     Running   1 (14h ago) 14h
etcd-minikube                        1/1     Running   1 (14h ago) 14h
kube-apiserver-minikube              1/1     Running   1 (37s ago) 14h
kube-controller-manager-minikube     1/1     Running   1 (14h ago) 14h
kube-proxy-mbw9v                     1/1     Running   1 (14h ago) 14h
kube-scheduler-minikube              1/1     Running   1 (14h ago) 14h
storage-provisioner                  1/1     Running   2 (14h ago) 14h
sotir@sotir-Dell:~$
```

Write Your First Pod Manifest

The nginx-pod.yaml file and the output of kubectl describe pod nginx

This is a link the [nginx-pod.yaml file](#)

```
apiVersion: v1
kind: Pod
metadata:
  name: nginx
spec:
  containers:
  - name: nginx-container
    image: nginx:latest
    ports:
    - containerPort: 80
```

```
$ kubectl describe pod nginx
```

```
Name:          nginx
Namespace:     default
Priority:       0
Service Account: default
Node:          minikube/192.168.49.2
```

```

Start Time:      Wed, 30 Jul 2025 18:13:23 +0300
Labels:          <none>
Annotations:     <none>
Status:          Running
IP:              10.244.0.5
IPs:
  IP:  10.244.0.5
Containers:
  nginx-container:
    Container ID:
docker://fb6f4a18f9685959a8af74f17d68f659e792d31ad775179cdf580040f15ae45
9
    Image:          nginx:latest
    Image ID:       docker-
pullable://nginx@sha256:84ec966e61a8c7846f509da7eb081c55c1d5681744872892
4a87ab32f12a72fb
    Port:           80/TCP
    Host Port:      0/TCP
    State:          Running
      Started:      Wed, 30 Jul 2025 18:13:26 +0300
    Ready:          True
    Restart Count:  0
    Environment:    <none>
    Mounts:
      /var/run/secrets/kubernetes.io/serviceaccount from kube-api-
access-p4thd (ro)
Conditions:
  Type                                Status
  PodReadyToStartContainers          True
  Initialized                         True
  Ready                              True
  ContainersReady                    True
  PodScheduled                       True
Volumes:
  kube-api-access-p4thd:
    Type:          Projected (a volume that contains injected
data from multiple sources)
    TokenExpirationSeconds: 3607
    ConfigMapName:      kube-root-ca.crt
    Optional:           false
    DownwardAPI:        true
QoS Class:           BestEffort
Node-Selectors:      <none>
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   6m39s  default-scheduler  Successfully assigned
default/nginx to minikube
  Normal  Pulling     6m39s  kubelet        Pulling image

```

```
"nginx:latest"
Normal Pulled 6m36s kubelet Successfully pulled image
"nginx:latest" in 2.409s (2.409s including waiting). Image size:
192231837 bytes.
Normal Created 6m36s kubelet Created container: nginx-
container
Normal Started 6m36s kubelet Started container nginx-
container
```

Manage Deployments & Replicas

Updated manifest plus CLI logs showing both the rollout and the rollback

To review CLI logs find this [session.log](#) file and execute this command in a terminal

```
cat session.log
```