

```
harini@DELL:~$ minikube start
minikube v1.35.0 on Ubuntu 24.04 (amd64)
Automatically selected the docker driver
Using Docker driver with root privileges
Starting "minikube" primary control-plane node in "minikube" cluster
Pulling base image v0.0.46 ...
Creating docker container (CPUs=2, Memory=2200MB) ...
Preparing Kubernetes v1.32.0 on Docker 27.4.1 ...
  • Generating certificates and keys ...
  • Booting up control plane ...
  • Configuring RBAC rules ...
Configuring bridge CNI (Container Networking Interface) ...
Verifying Kubernetes components...
  • Using image gcr.io/k8s-minikube/storage-provisioner:v5
Enabled addons: default-storageclass, storage-provisioner
Done! kubect1 is now configured to use "minikube" cluster and "default" namespace by default
harini@DELL:~$ kubectl get pods
No resources found in default namespace.
harini@DELL:~$ nano deployment.yml
harini@DELL:~$ kubectl apply -f deployment.yml
deployment.apps/nginx-deployment created
harini@DELL:~$ kubectl get deployments
NAME          READY   UP-TO-DATE   AVAILABLE   AGE
nginx-deployment  0/3     3            0           52s
harini@DELL:~$ kubectl create deployment react-ecommerce --image=harinisuresh/harini:3 --replicas=2
deployment.apps/react-ecommerce created
harini@DELL:~$ kubectl get deployments
NAME          READY   UP-TO-DATE   AVAILABLE   AGE
nginx-deployment  3/3     3            3           6m46s
react-ecommerce  0/2     2            0           28s
harini@DELL:~$ kubectl get pods
NAME          READY   STATUS    RESTARTS   AGE
nginx-deployment-58cdc7b878-2l5q6  1/1    Running   0           7m6s
nginx-deployment-58cdc7b878-p422n  1/1    Running   0           7m6s
nginx-deployment-58cdc7b878-vgjsz  1/1    Running   0           7m6s
react-ecommerce-6747884c58-4l6tx  0/1    ContainerCreating  0           48s
react-ecommerce-6747884c58-q6xsq  0/1    ContainerCreating  0           48s
harini@DELL:~$ minikube stop
Stopping node "minikube" ...
Powering off "minikube" via SSH ...
1 node stopped.
harini@DELL:~$ minikube start
minikube v1.35.0 on Ubuntu 24.04 (amd64)
Using the docker driver based on existing profile
Starting "minikube" primary control-plane node in "minikube" cluster
```

```
harini@DELL:~$ minikube start
minikube v1.35.0 on Ubuntu 24.04 (amd64)
Using the docker driver based on existing profile
Starting "minikube" primary control-plane node in "minikube" cluster
Pulling base image v0.0.46 ...
Restarting existing docker container for "minikube" ...
Failing to connect to https://registry.k8s.io/ from both inside the minikube container and host machine
To pull new external images, you may need to configure a proxy: https://minikube.sigs.k8s.io/docs/reference/networking/proxy/
Preparing Kubernetes v1.32.0 on Docker 27.4.1 ...
Verifying Kubernetes components...
  • Using image gcr.io/k8s-minikube/storage-provisioner:v5
Enabled addons: default-storageclass, storage-provisioner
Done! kubect1 is now configured to use "minikube" cluster and "default" namespace by default
harini@DELL:~$ minikube ssh
docker@minikube:~$ docker pull harinisuresh/harini:3
exit
Error response from daemon: Get "https://registry-1.docker.io/v2/": dial tcp: lookup registry-1.docker.io on 192.168.137.236:53: server misbehaving
docker@minikube:~$ exit
logout
ssh: Process exited with status 1
harini@DELL:~$ minikube start
minikube v1.35.0 on Ubuntu 24.04 (amd64)
Using the docker driver based on existing profile
Starting "minikube" primary control-plane node in "minikube" cluster
Pulling base image v0.0.46 ...
Updating the running docker "minikube" container ...
Failing to connect to https://registry.k8s.io/ from both inside the minikube container and host machine
To pull new external images, you may need to configure a proxy: https://minikube.sigs.k8s.io/docs/reference/networking/proxy/
Preparing Kubernetes v1.32.0 on Docker 27.4.1 ...
Verifying Kubernetes components...
  • Using image gcr.io/k8s-minikube/storage-provisioner:v5
Enabled addons: storage-provisioner, default-storageclass
Done! kubect1 is now configured to use "minikube" cluster and "default" namespace by default
harini@DELL:~$ kubectl get pods
NAME          READY   STATUS    RESTARTS   AGE
nginx-deployment-58cdc7b878-2l5q6  0/1    ImagePullBackOff  0           19m
nginx-deployment-58cdc7b878-p422n  0/1    ImagePullBackOff  0           19m
nginx-deployment-58cdc7b878-vgjsz  0/1    ImagePullBackOff  0           19m
react-ecommerce-6747884c58-4l6tx  1/1    Running         2 (3m7s ago)  13m
react-ecommerce-6747884c58-q6xsq  1/1    Running         2 (3m7s ago)  13m
harini@DELL:~$ kubectl get pods
NAME          READY   STATUS    RESTARTS   AGE
nginx-deployment-58cdc7b878-2l5q6  0/1    ImagePullBackOff  0           25m
nginx-deployment-58cdc7b878-p422n  0/1    ImagePullBackOff  0           25m
nginx-deployment-58cdc7b878-vgjsz  0/1    ImagePullBackOff  0           25m
react-ecommerce-6747884c58-4l6tx  1/1    Running         2 (9m7s ago)  19m
```

```

harini@DELL:~$ kubectl describe pod nginx-deployment-58cdc7b878-215q6
Name: nginx-deployment-58cdc7b878-215q6
Namespace: default
Priority: 0
Service Account: default
Node: minikube/192.168.49.2
Start Time: Thu, 20 Mar 2025 11:02:28 +0000
Labels: app=nginx
pod-template-hash=58cdc7b878
Annotations: <none>
Status: Running
IP: 10.244.0.14
IPs:
  IP: 10.244.0.14
Controlled By: ReplicaSet/nginx-deployment-58cdc7b878
Containers:
  nginx-container:
    Container ID: docker://3b2eaaa5377c130114592761ba221d5dcbdfaa1774df56e2a7bceb9e401ec7d4
    Image: nginx:latest
    Image ID: docker-pullable://nginx@sha256:124b44bfc9ccdd1f3cedf4b592d4d1e8bddb78b51ec2ed5056c52d3692baebc19
    Port: <none>
    Host Port: <none>
    State: Waiting
    Reason: ImagePullBackOff
    Last State: Terminated
    Reason: Completed
    Exit Code: 0
    Started: Thu, 20 Mar 2025 11:03:52 +0000
    Finished: Thu, 20 Mar 2025 11:10:14 +0000
    Ready: False
    Restart Count: 0
    Environment: <none>
    Mounts:
      /var/run/secrets/kubernetes.io/serviceaccount from kube-api-access-q4tzn (ro)
Conditions:
  Type              Status
  PodReadyToStartContainers  True
  Initialized         True
  Ready              False
  ContainersReady     False
  PodScheduled       True
Volumes:
  kube-api-access-q4tzn:
    Type: Projected (a volume that contains injected data from multiple sources)
    TokenExpirationSeconds: 3607
    ConfigMapName: kube-root-ca.crt

```

```

harini@DELL:~$ kubectl describe pod nginx-deployment-58cdc7b878-215q6
Volumes:
  kube-api-access-q4tzn:
    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: <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   26m   default-scheduler   Successfully assigned default/nginx-deployment-58cdc7b878-215q6 to minikube
  Normal    Pulling     26m   kubelet          Pulling image "nginx:latest"
  Normal    Pulled      24m   kubelet          Successfully pulled image "nginx:latest" in 6.351s (1m20.994s including waiting). Image size: 192004
242 bytes.
  Normal    Created     24m   kubelet          Created container: nginx-container
  Normal    Started     24m   kubelet          Started container nginx-container
  Warning   BackOff     13m   kubelet          Back-off restarting failed container nginx-container in pod nginx-deployment-58cdc7b878-215q6_default
(358da618-2cfs-4b0c-8809-4a5b165210fc)
  Normal    Pulling     11m   kubelet          Pulling image "nginx:latest"
  Warning   Failed      11m   kubelet          Failed to pull image "nginx:latest": Error response from daemon: Get "https://registry-1.docker.io/v
2/": dial tcp: lookup registry-1.docker.io on 192.168.137.236:53: server misbehaving
  Warning   Failed      11m   kubelet          Error: ErrImagePull
  Normal    SandboxChanged 9m40s   kubelet          Pod sandbox changed, it will be killed and re-created.
  Normal    BackOff     2m33s   kubelet          Back-off pulling image "nginx:latest"
  Warning   Failed      101s   kubelet          Error: ImagePullBackOff
harini@DELL:~$ docker pull harinisuresh/harini:3
3: Pulling from harinisuresh/harini
Digest: sha256:e01134a568ec08240b34cf2d7f9a468f2622e9c42ce1865038a790f325900165
Status: Image is up to date for harinisuresh/harini:3
docker.io/harinisuresh/harini:3
harini@DELL:~$ docker login
Authenticating with existing credentials...
Login Succeeded
harini@DELL:~$ kubectl rollout restart deployment nginx-deployment
deployment.apps/nginx-deployment restarted
harini@DELL:~$ kubectl get pods
NAME                                READY   STATUS             RESTARTS   AGE
nginx-deployment-58cdc7b878-215q6   0/1     ImagePullBackOff   0           28m
nginx-deployment-58cdc7b878-vgjsz    0/1     ImagePullBackOff   0           28m
nginx-deployment-749d4c6bb6-9wkjj    0/1     ContainerCreating   0           3s
nginx-deployment-749d4c6bb6-tpmgh    1/1     Running             0           10s
react-ecommerce-6747884c58-416tx     1/1     Running             2 (11m ago) 21m

```

```

Select harini@DELL:~
Error from server (NotFound): pods "nginx-deployment-58cdc7b878-215q6" not found
harini@DELL:~$ kubectl get pods
NAME                                READY   STATUS    RESTARTS   AGE
nginx-deployment-749d4c6bb6-7gf96   1/1     Running   0           2m32s
nginx-deployment-749d4c6bb6-9wkjj    1/1     Running   0           2m38s
nginx-deployment-749d4c6bb6-tpmgh    1/1     Running   0           2m45s
react-ecommerce-6747884c58-416tx    1/1     Running   2 (14m ago) 24m
react-ecommerce-6747884c58-q6xsq    1/1     Running   2 (14m ago) 24m
harini@DELL:~$ minikube ip
192.168.49.2
harini@DELL:~$ curl kubectl get pods
curl: (6) Could not resolve host: kubectl
curl: (6) Could not resolve host: get
curl: (6) Could not resolve host: pods
harini@DELL:~$ curl 192.168.49.2:30007
curl: (7) Failed to connect to 192.168.49.2 port 30007 after 0 ms: Couldn't connect to server
harini@DELL:~$ kubectl get pods
NAME                                READY   STATUS    RESTARTS   AGE
nginx-deployment-749d4c6bb6-7gf96   1/1     Running   0           5m13s
nginx-deployment-749d4c6bb6-9wkjj    1/1     Running   0           5m19s
nginx-deployment-749d4c6bb6-tpmgh    1/1     Running   0           5m26s
react-ecommerce-6747884c58-416tx    1/1     Running   2 (16m ago) 27m
react-ecommerce-6747884c58-q6xsq    1/1     Running   2 (16m ago) 27m
harini@DELL:~$ kubectl delete pod nginx-deployment-nginx-deployment-749d4c6bb6-7gf96
Error from server (NotFound): pods "nginx-deployment-nginx-deployment-749d4c6bb6-7gf96" not found
harini@DELL:~$ kubectl delete pod nginx-deployment-749d4c6bb6-7gf96
pod "nginx-deployment-749d4c6bb6-7gf96" deleted
harini@DELL:~$ kubectl get pods
NAME                                READY   STATUS    RESTARTS   AGE
nginx-deployment-749d4c6bb6-9wkjj    1/1     Running   0           8m22s
nginx-deployment-749d4c6bb6-kqcs1    1/1     Running   0           14s
nginx-deployment-749d4c6bb6-tpmgh    1/1     Running   0           8m29s
react-ecommerce-6747884c58-416tx    1/1     Running   2 (19m ago) 30m
react-ecommerce-6747884c58-q6xsq    1/1     Running   2 (19m ago) 30m
harini@DELL:~$ kubectl scale deployment nginx-deployment --replicas=5
deployment.apps/nginx-deployment scaled
harini@DELL:~$ kubectl get pods
NAME                                READY   STATUS    RESTARTS   AGE
nginx-deployment-749d4c6bb6-2zh5t    1/1     Running   0           11s
nginx-deployment-749d4c6bb6-9wkjj    1/1     Running   0           10m
nginx-deployment-749d4c6bb6-k1295    0/1     ContainerCreating   0           11s
nginx-deployment-749d4c6bb6-kqcs1    1/1     Running   0           2m22s
nginx-deployment-749d4c6bb6-tpmgh    1/1     Running   0           10m
react-ecommerce-6747884c58-416tx    1/1     Running   2 (22m ago) 32m
react-ecommerce-6747884c58-q6xsq    1/1     Running   2 (22m ago) 32m
harini@DELL:~$

```

```

harini@DELL:~
192.168.49.2
harini@DELL:~$ curl kubectl get pods
curl: (6) Could not resolve host: kubectl
curl: (6) Could not resolve host: get
curl: (6) Could not resolve host: pods
harini@DELL:~$ curl 192.168.49.2:30007
curl: (7) Failed to connect to 192.168.49.2 port 30007 after 0 ms: Couldn't connect to server
harini@DELL:~$ kubectl get pods
NAME                                READY   STATUS    RESTARTS   AGE
nginx-deployment-749d4c6bb6-7gf96   1/1     Running   0           5m13s
nginx-deployment-749d4c6bb6-9wkjj    1/1     Running   0           5m19s
nginx-deployment-749d4c6bb6-tpmgh    1/1     Running   0           5m26s
react-ecommerce-6747884c58-416tx    1/1     Running   2 (16m ago) 27m
react-ecommerce-6747884c58-q6xsq    1/1     Running   2 (16m ago) 27m
harini@DELL:~$ kubectl delete pod nginx-deployment-nginx-deployment-749d4c6bb6-7gf96
Error from server (NotFound): pods "nginx-deployment-nginx-deployment-749d4c6bb6-7gf96" not found
harini@DELL:~$ kubectl delete pod nginx-deployment-749d4c6bb6-7gf96
pod "nginx-deployment-749d4c6bb6-7gf96" deleted
harini@DELL:~$ kubectl get pods
NAME                                READY   STATUS    RESTARTS   AGE
nginx-deployment-749d4c6bb6-9wkjj    1/1     Running   0           8m22s
nginx-deployment-749d4c6bb6-kqcs1    1/1     Running   0           14s
nginx-deployment-749d4c6bb6-tpmgh    1/1     Running   0           8m29s
react-ecommerce-6747884c58-416tx    1/1     Running   2 (19m ago) 30m
react-ecommerce-6747884c58-q6xsq    1/1     Running   2 (19m ago) 30m
harini@DELL:~$ kubectl scale deployment nginx-deployment --replicas=5
deployment.apps/nginx-deployment scaled
harini@DELL:~$ kubectl get pods
NAME                                READY   STATUS    RESTARTS   AGE
nginx-deployment-749d4c6bb6-2zh5t    1/1     Running   0           11s
nginx-deployment-749d4c6bb6-9wkjj    1/1     Running   0           10m
nginx-deployment-749d4c6bb6-k1295    0/1     ContainerCreating   0           11s
nginx-deployment-749d4c6bb6-kqcs1    1/1     Running   0           2m22s
nginx-deployment-749d4c6bb6-tpmgh    1/1     Running   0           10m
react-ecommerce-6747884c58-416tx    1/1     Running   2 (22m ago) 32m
react-ecommerce-6747884c58-q6xsq    1/1     Running   2 (22m ago) 32m
harini@DELL:~$ kubectl set image deployment/nginx-container nginx:1.19
deployment.apps/nginx-deployment image updated
harini@DELL:~$ kubectl expose deployment nginx-deployment --type=NodePort --port=80
service/nginx-deployment exposed
harini@DELL:~$ kubectl get services
NAME      TYPE        CLUSTER-IP   EXTERNAL-IP   PORT(S)          AGE
kubernetes ClusterIP   10.96.0.1     <none>         443/TCP          51m
nginx-deployment NodePort    10.108.240.39 <none>         80:31244/TCP     33s
harini@DELL:~$ minikube ip
192.168.49.2

```