```
[Altafs-MacBook-Pro:~ altafali$ minikube start --nodes 2 -p multinode-demo
😄  [multinode-demo] minikube v1.32.0 on Darwin 13.6.1
✨  Automatically selected the docker driver
📌  Using Docker Desktop driver with root privileges
👍  Starting control plane node multinode-demo in cluster multinode-demo
🚜  Pulling base image ...
🔥  Creating docker container (CPUs=2, Memory=2200MB) ...
🐳  Preparing Kubernetes v1.28.3 on Docker 24.0.7 ...
    ▪ Generating certificates and keys ...
    ▪ Booting up control plane ...
    ▪ Configuring RBAC rules ...
🔗  Configuring CNI (Container Networking Interface) ...
🔎  Verifying Kubernetes components...
    ▪ Using image gcr.io/k8s-minikube/storage-provisioner:v5
🌟  Enabled addons: storage-provisioner, default-storageclass

👍  Starting worker node multinode-demo-m02 in cluster multinode-demo
🚜  Pulling base image ...
🔥  Creating docker container (CPUs=2, Memory=2200MB) ...
🌐  Found network options:
    ▪ NO_PROXY=192.168.58.2
🐳  Preparing Kubernetes v1.28.3 on Docker 24.0.7 ...
    ▪ env NO_PROXY=192.168.58.2
🔎  Verifying Kubernetes components...
🏄  Done! kubectl is now configured to use "multinode-demo" cluster and "default" namespace by default
[Altafs-MacBook-Pro:~ altafali$ kubectl get nodes
NAME                STATUS   ROLES           AGE   VERSION
multinode-demo      Ready    control-plane   59s   v1.28.3
multinode-demo-m02  Ready    <none>          19s   v1.28.3
[Altafs-MacBook-Pro:~ altafali$ minikube status -p multinode-demo
multinode-demo
type: Control Plane
host: Running
kubelet: Running
apiserver: Running
kubeconfig: Configured

multinode-demo-m02
type: Worker
host: Running
kubelet: Running

[Altafs-MacBook-Pro:~ altafali$ minikube dashboard -p multinode-demo
🔌  Enabling dashboard ...
    ▪ Using image docker.io/kubernetesui/dashboard:v2.7.0
    ▪ Using image docker.io/kubernetesui/metrics-scraper:v1.0.8
💡  Some dashboard features require the metrics-server addon. To enable all features please run:

        minikube -p multinode-demo addons enable metrics-server

🤔  Verifying dashboard health ...
🚀  Launching proxy ...
🤔  Verifying proxy health ...
🎉  Opening http://127.0.0.1:49543/api/v1/namespaces/kubernetes-dashboard/services/http:kubernetes-dashboard:/proxy/ in your default browser...
minikube stop -p multinode-demo
^C
[Altafs-MacBook-Pro:~ altafali$ minikube stop -p multinode-demo
✋  Stopping node "multinode-demo"  ...
🛑  Powering off "multinode-demo" via SSH ...
✋  Stopping node "multinode-demo-m02"  ...
🛑  Powering off "multinode-demo-m02" via SSH ...
🛑  2 nodes stopped.
[Altafs-MacBook-Pro:~ altafali$ minikube delete --all
🔥  Deleting "minikube" in docker ...
🔥  Removing /Users/altafali/.minikube/machines/minikube ...
💀  Removed all traces of the "minikube" cluster.
🔥  Deleting "multinode-demo" in docker ...
🔥  Removing /Users/altafali/.minikube/machines/multinode-demo ...
🔥  Removing /Users/altafali/.minikube/machines/multinode-demo-m02 ...
💀  Removed all traces of the "multinode-demo" cluster.
🔥  Successfully deleted all profiles
Altafs-MacBook-Pro:~ altafali$
```

127.0.0.1:49543/api/v1/namespaces/kubernetes-dashboard/services/http:kubernetes-dashboard:/proxy/#/w...

Homepage - Geor...

kubernetes

default

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Storage Classes

There is nothing to display here
You can deploy a containerized app, select other namespace or take the Dashboard Tour to learn more.

```
[Altafs-MacBook-Pro:lab3 altafali$ minikube start
🙄  minikube v1.32.0 on Darwin 13.6.1
✨  Automatically selected the docker driver
🏃  Using Docker Desktop driver with root privileges
👍  Starting control plane node minikube in cluster minikube
🚜  Pulling base image ...
🔥  Creating docker container (CPUs=2, Memory=2200MB) ...
🐳  Preparing Kubernetes v1.28.3 on Docker 24.0.7 ...
    ▪ Generating certificates and keys ...
    ▪ Booting up control plane ...
    ▪ Configuring RBAC rules ...
🔗  Configuring bridge CNI (Container Networking Interface) ...
    ▪ Using image gcr.io/k8s-minikube/storage-provisioner:v5
🔎  Verifying Kubernetes components...
🌟  Enabled addons: storage-provisioner, default-storageclass
🏄  Done! kubectl is now configured to use "minikube" cluster and "default" namespace by default
[Altafs-MacBook-Pro:lab3 altafali$ kubectl apply -f replicaset.yaml
replicaset.apps/nginx created
[Altafs-MacBook-Pro:lab3 altafali$ kubectl get pods
NAME          READY   STATUS    RESTARTS   AGE
nginx-52sg4   1/1     Running   0          35s
nginx-cbx2p   1/1     Running   0          35s
nginx-mjb5w   1/1     Running   0          35s
[Altafs-MacBook-Pro:lab3 altafali$ kubectl delete pod nginx-
Error from server (NotFound): pods "nginx-" not found
[Altafs-MacBook-Pro:lab3 altafali$ kubectl delete pod nginx-52sg4
pod "nginx-52sg4" deleted
[Altafs-MacBook-Pro:lab3 altafali$ kubectl delete pod nginx-cbx2p
pod "nginx-cbx2p" deleted
[Altafs-MacBook-Pro:lab3 altafali$ kubectl delete pod nginx-mjb5w
pod "nginx-mjb5w" deleted
[Altafs-MacBook-Pro:lab3 altafali$ kubectl get pods
NAME          READY   STATUS    RESTARTS   AGE
nginx-kdl2l   1/1     Running   0          13s
nginx-mjghp   1/1     Running   0          23s
nginx-phf7w   1/1     Running   0          6s
[Altafs-MacBook-Pro:lab3 altafali$ kubectl get replicasets
NAME    DESIRED   CURRENT   READY   AGE
nginx   3         3         3       107s
Altafs-MacBook-Pro:lab3 altafali$ █
```

```
nginx-phf7w   1/1     Running   1 (23h ago)   23h
Altafs-MacBook-Pro:lab3 altafali$ kubectl apply -f nginx.yaml
deployment.apps/nginx-deployment created
Altafs-MacBook-Pro:lab3 altafali$ kubectl get deployments
NAME               READY   UP-TO-DATE   AVAILABLE   AGE
nginx-deployment   3/3     1            3           7s
Altafs-MacBook-Pro:lab3 altafali$ kubectl rollout status deployment nginx
Error from server (NotFound): deployments.apps "nginx" not found
[Altafs-MacBook-Pro:lab3 altafali$ kubectl rollout status deployment nginx-deployment
deployment "nginx-deployment" successfully rolled out
Altafs-MacBook-Pro:lab3 altafali$ █
```

```
Altafs-MacBook-Pro:lab3 altafali$ kubectl apply -f stateful-nginx.yaml

service/nginx created
statefulset.apps/web created
Altafs-MacBook-Pro:lab3 altafali$
Altafs-MacBook-Pro:lab3 altafali$ kubectl get statefulsets
NAME    READY   AGE
web     0/3     6s
Altafs-MacBook-Pro:lab3 altafali$
```

```
web    0/3     6s
Altafs-MacBook-Pro:lab3 altafali$ kubectl apply -f daemonSet-nginx.yaml
daemonset.apps/nginx created
Altafs-MacBook-Pro:lab3 altafali$ kubectl get daemonset
NAME    DESIRED   CURRENT   READY   UP-TO-DATE   AVAILABLE   NODE SELECTOR   AGE
nginx   1         1         1       1            1           <none>          7s
Altafs-MacBook-Pro:lab3 altafali$
```

```
[Altafs-MacBook-Pro:lab3 altafali$ kubectl apply -f nginx-deployment-resource-limit.yaml
deployment.apps/nginx-deployment configured
Altafs-MacBook-Pro:lab3 altafali$ kubectl get deployments
NAME              READY   UP-TO-DATE   AVAILABLE   AGE
nginx-deployment  3/3     3            3           7m18s
Altafs-MacBook-Pro:lab3 altafali$
```

```
[Altafs-MacBook-Pro:lab3 altafali$ kubectl apply -f nginx-deployment-healthcheck.yaml
deployment.apps/nginx-deployment configured
[Altafs-MacBook-Pro:lab3 altafali$ kubectl get deployments
NAME              READY   UP-TO-DATE   AVAILABLE   AGE
nginx-deployment  3/3     3            3           10m
Altafs-MacBook-Pro:lab3 altafali$
```

```
[Altafs-MacBook-Pro:lab3 altafali$ git clone https://github.com/Ananya2001-an/kubernetes-demo.git
Cloning into 'kubernetes-demo'...
remote: Enumerating objects: 49, done.
remote: Counting objects: 100% (49/49), done.
remote: Compressing objects: 100% (32/32), done.
remote: Total 49 (delta 18), reused 44 (delta 13), pack-reused 0
Receiving objects: 100% (49/49), 6.81 KiB | 498.00 KiB/s, done.
Resolving deltas: 100% (18/18), done.
Altafs-MacBook-Pro:lab3 altafali$ cd kubernetes
-bash: cd: kubernetes: No such file or directory
Altafs-MacBook-Pro:lab3 altafali$ cd kubernetes-demo/
Altafs-MacBook-Pro:kubernetes-demo altafali$ cd kubernetes/
Altafs-MacBook-Pro:kubernetes altafali$ kubectl apply -f secrets/mongodb-secret.yml
secret/mongodb-secret created
Altafs-MacBook-Pro:kubernetes altafali$ kubectl apply -f stateful-sets/mongodb-stateful-set.yml
statefulset.apps/mongodb-stateful-set created
Altafs-MacBook-Pro:kubernetes altafali$ kubectl apply -f services/mongodb-service.yml
service/mongodb-service created
Altafs-MacBook-Pro:kubernetes altafali$ kubectl apply -f deployments/note-server-depl.yml
deployment.apps/note-server-deployment created
Altafs-MacBook-Pro:kubernetes altafali$ kubectl apply -f services/note-server-service.yml
service/note-server-service created
Altafs-MacBook-Pro:kubernetes altafali$ kubectl apply -f deployments/note-depl.yml
deployment.apps/note-deployment created
Altafs-MacBook-Pro:kubernetes altafali$ kubectl apply -f services/note-service.yml
service/note-service created
Altafs-MacBook-Pro:kubernetes altafali$ minikube service note-service
|-----------|--------------|--------------|---------------------------|
| NAMESPACE |     NAME     | TARGET PORT  |            URL            |
|-----------|--------------|--------------|---------------------------|
|  default  | note-service |     3000     | http://192.168.49.2:30804 |
|-----------|--------------|--------------|---------------------------|
🏃  Starting tunnel for service note-service.
|-----------|--------------|--------------|------------------------|
| NAMESPACE |     NAME     | TARGET PORT  |          URL           |
|-----------|--------------|--------------|------------------------|
|  default  | note-service |              | http://127.0.0.1:50357 |
|-----------|--------------|--------------|------------------------|
🎉  Opening service default/note-service in default browser...
❗  Because you are using a Docker driver on darwin, the terminal needs to be open to run it.
```

note.   Assignments   Add Assignment   Notes   Add Note   ☾

Important Assignments 📄

Delete pod

```
[Altafs-MacBook-Pro:kubernetes altafali$ kubectl get pods
NAME                                    READY   STATUS    RESTARTS   AGE
mongodb-stateful-set-0                  1/1     Running   0          6s
mongodb-stateful-set-1                  1/1     Running   0          6m8s
nginx-deployment-5f4f55f467-5gx7z       1/1     Running   0          28m
nginx-deployment-5f4f55f467-fxmct       1/1     Running   0          28m
nginx-deployment-5f4f55f467-wc9zf       1/1     Running   0          28m
nginx-rdwcz                             1/1     Running   0          33m
note-deployment-74cc946cd8-tlbw8        1/1     Running   0          4m14s
note-deployment-74cc946cd8-ztlv7        1/1     Running   0          4m14s
note-server-deployment-6fb5fcb67f-6vjzg 1/1     Running   0          6m18s
note-server-deployment-6fb5fcb67f-9lhqg 1/1     Running   0          6m18s
web-0                                   0/1     Pending   0          35m
[Altafs-MacBook-Pro:kubernetes altafali$ kubectl delete pod note-deployment-74cc946cd8-tlbw8
pod "note-deployment-74cc946cd8-tlbw8" deleted
[Altafs-MacBook-Pro:kubernetes altafali$ kubectl get pods
NAME                                    READY   STATUS    RESTARTS   AGE
mongodb-stateful-set-0                  1/1     Running   0          86s
mongodb-stateful-set-1                  1/1     Running   0          7m28s
nginx-deployment-5f4f55f467-5gx7z       1/1     Running   0          29m
nginx-deployment-5f4f55f467-fxmct       1/1     Running   0          29m
nginx-deployment-5f4f55f467-wc9zf       1/1     Running   0          29m
nginx-rdwcz                             1/1     Running   0          34m
note-deployment-74cc946cd8-vqjgf        1/1     Running   0          8s
note-deployment-74cc946cd8-ztlv7        1/1     Running   0          5m34s
note-server-deployment-6fb5fcb67f-6vjzg 1/1     Running   0          7m38s
note-server-deployment-6fb5fcb67f-9lhqg 1/1     Running   0          7m38s
web-0                                   0/1     Pending   0          36m
Altafs-MacBook-Pro:kubernetes altafali$
```