# New Cluster Creation

1. View your cluster list (it should be empty):

$ minikube profile list

1. Create a new cluster (you may specify parameters like --driver, --cpu, --memory):

$ minikube start

1. Get into minikube’s docker environment:

$ minikube ssh

1. Check running containers and find Kubernetes control plane’s processes and exit from docker:

docker$ docker ps  
docker$ exit # or press Ctrl+D

View your cluster list (it should *not* be empty):

$ minikube profile list

Check the list of pods and services (it should *not* be empty):

$ kubectl get pods -A  
$ kubectl get svc -A

## Solution

1. View your cluster list (it should be empty):

$ minikube profile list  
  
🤹 Exiting due to MK\_USAGE\_NO\_PROFILE: No minikube profile was found.  
💡 Suggestion:  
  
 You can create one using 'minikube start'.

1. Create a new cluster (you may specify parameters like --driver, --cpus, --memory):

$ minikube start --driver docker --cpus 2 --memory 3000  
😄 minikube v1.20.0 on Microsoft Windows 10 Pro 10.0.19043 Build 19043  
✨ Using the docker driver based on user configuration  
👍 Starting control plane node minikube in cluster minikube  
🚜 Pulling base image ...  
🔥 Creating docker container (CPUs=2, Memory=3000MB) ...  
🐳 Preparing Kubernetes v1.20.2 on Docker 20.10.6 ...  
 ▪ Generating certificates and keys ...  
 ▪ Booting up control plane ...  
 ▪ Configuring RBAC rules ...  
🔎 Verifying Kubernetes components...  
 ▪ Using image gcr.io/k8s-minikube/storage-provisioner:v5  
🌟 Enabled addons: storage-provisioner, default-storageclass  
🏄 Done! kubectl is now configured to use "minikube" cluster and "default" namespace by default

1. Get into minikube’s docker environment:

$ minikube ssh  
docker@minikube:~$

1. Check running containers and find Kubernetes control plane’s processes and exit from docker:

docker@minikube:~$ docker ps  
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES  
1e3aa93c9d45 6e38f40d628d "/storage-provisioner" 5 minutes ago Up 5 minutes k8s\_storage-provisioner\_storage-provisioner\_kube-system\_55b38bf7-2acd-493d-8a05-3fcc22059432\_0  
1becfa565ea0 bfe3a36ebd25 "/coredns -conf /etc…" 5 minutes ago Up 5 minutes k8s\_coredns\_coredns-74ff55c5b-nmnnx\_kube-system\_199acfd8-8b4e-4771-878c-476d27b59966\_0  
345753500f05 k8s.gcr.io/pause:3.2 "/pause" 5 minutes ago Up 5 minutes k8s\_POD\_storage-provisioner\_kube-system\_55b38bf7-2acd-493d-8a05-3fcc22059432\_0  
1b909cbbd58d 43154ddb57a8 "/usr/local/bin/kube…" 5 minutes ago Up 5 minutes k8s\_kube-proxy\_kube-proxy-hlg7f\_kube-system\_582d4662-487a-4a73-9d21-11bbff2fd54e\_0  
0683a910bc0a k8s.gcr.io/pause:3.2 "/pause" 5 minutes ago Up 5 minutes k8s\_POD\_coredns-74ff55c5b-nmnnx\_kube-system\_199acfd8-8b4e-4771-878c-476d27b59966\_0  
434a6b3e9d37 k8s.gcr.io/pause:3.2 "/pause" 5 minutes ago Up 5 minutes k8s\_POD\_kube-proxy-hlg7f\_kube-system\_582d4662-487a-4a73-9d21-11bbff2fd54e\_0  
cc65fef2e3cd 0369cf4303ff "etcd --advertise-cl…" 5 minutes ago Up 5 minutes k8s\_etcd\_etcd-minikube\_kube-system\_c31fe6a5afdd142cf3450ac972274b36\_0  
bbe5a116ea88 a8c2fdb8bf76 "kube-apiserver --ad…" 5 minutes ago Up 5 minutes k8s\_kube-apiserver\_kube-apiserver-minikube\_kube-system\_c767dbeb9ddd2d01964c2fc02c621c4e\_0  
92a9474afa49 a27166429d98 "kube-controller-man…" 5 minutes ago Up 5 minutes k8s\_kube-controller-manager\_kube-controller-manager-minikube\_kube-system\_57b8c22dbe6410e4bd36cf14b0f8bdc7\_0  
5dffc47c1dd9 ed2c44fbdd78 "kube-scheduler --au…" 5 minutes ago Up 5 minutes k8s\_kube-scheduler\_kube-scheduler-minikube\_kube-system\_6b4a0ee8b3d15a1c2e47c15d32e6eb0d\_0  
e12c3f3fca04 k8s.gcr.io/pause:3.2 "/pause" 5 minutes ago Up 5 minutes k8s\_POD\_kube-scheduler-minikube\_kube-system\_6b4a0ee8b3d15a1c2e47c15d32e6eb0d\_0  
7b96cea056e6 k8s.gcr.io/pause:3.2 "/pause" 5 minutes ago Up 5 minutes k8s\_POD\_kube-controller-manager-minikube\_kube-system\_57b8c22dbe6410e4bd36cf14b0f8bdc7\_0  
f92f44443d68 k8s.gcr.io/pause:3.2 "/pause" 5 minutes ago Up 5 minutes k8s\_POD\_kube-apiserver-minikube\_kube-system\_c767dbeb9ddd2d01964c2fc02c621c4e\_0  
906d3da7f7ca k8s.gcr.io/pause:3.2 "/pause" 5 minutes ago Up 5 minutes k8s\_POD\_etcd-minikube\_kube-system\_c31fe6a5afdd142cf3450ac972274b36\_0  
  
docker@minikube:~$ exit  
logout

View your cluster list (it should *not* be empty):

$ minikube profile list  
|----------|-----------|---------|--------------|------|---------|---------|-------|  
| Profile | VM Driver | Runtime | IP | Port | Version | Status | Nodes |  
| ---------- | ----------- | --------- | -------------- | ------ | --------- | --------- | ------- |  
| minikube | docker | docker | 192.168.49.2 | 8443 | v1.20.2 | Running | 1 |  
| ---------- | ----------- | --------- | -------------- | ------ | --------- | --------- | ------- |

Check the list of pods and services (it should *not* be empty):

$ kubectl get pods -A  
NAMESPACE NAME READY STATUS RESTARTS AGE  
kube-system coredns-74ff55c5b-nmnnx 1/1 Running 0 6m16s  
kube-system etcd-minikube 1/1 Running 0 6m29s  
kube-system kube-apiserver-minikube 1/1 Running 0 6m29s  
kube-system kube-controller-manager-minikube 1/1 Running 0 6m29s  
kube-system kube-proxy-hlg7f 1/1 Running 0 6m16s  
kube-system kube-scheduler-minikube 1/1 Running 0 6m29s  
kube-system storage-provisioner 1/1 Running 0 6m27s  
  
$ kubectl get svc -A  
NAMESPACE NAME TYPE CLUSTER-IP EXTERNAL-IP PORT(S) AGE  
default kubernetes ClusterIP 10.96.0.1 <none> 443/TCP 6m38s  
kube-system kube-dns ClusterIP 10.96.0.10 <none> 53/UDP,53/TCP,9153/TCP 6m37s