KUBERNETES BASIC COMMANDS

```
PS C:\WINDOWS\system32> minikube start
* minikube v1.30.1 on Microsoft Windows 11 Home Single Language 10.0.22621.1555 Build 22621.1555
* Automatically selected the docker driver. Other choices: hyperv, virtualbox, ssh
* Using Docker Desktop driver with root privileges
* Starting control plane node minikube in cluster minikube
* Pulling base image ...
* Downloading Kubernetes v1.26.3 preload ...
    > preloaded-images-k8s-v18-v1...:  397.02 MiB / 397.02 MiB  100.00% 2.38 Mi
    > gcr.io/k8s-minikube/kicbase...:  373.53 MiB / 373.53 MiB  100.00% 2.04 Mi
* Creating docker container (CPUs=2, Memory=4000MB) ...
* Preparing Kubernetes v1.26.3 on Docker 23.0.2 ...
  - 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
PS C:\WINDOWS\system32>
```

```
PS C:\WINDOWS\system32> minikube status
minikube
type: Control Plane
host: Running
kubelet: Running
apiserver: Running
kubeconfig: Configured

PS C:\WINDOWS\system32>
```

```
PS C:\WINDOWS\system32> minikube dashboard
* 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 addons enable metrics-server


* Verifying dashboard health ...
* Launching proxy ...
* Verifying proxy health ...
* Opening http://127.0.0.1:52367/api/v1/namespaces/kubernetes-dashboard/services/http:kubernetes-dashboard:
```

Kubectl basic commands

```
PS C:\WINDOWS\system32> kubectl get nodes
NAME        STATUS    ROLES           AGE    VERSION
minikube    Ready     control-plane   10m    v1.26.3
PS C:\WINDOWS\system32>
```
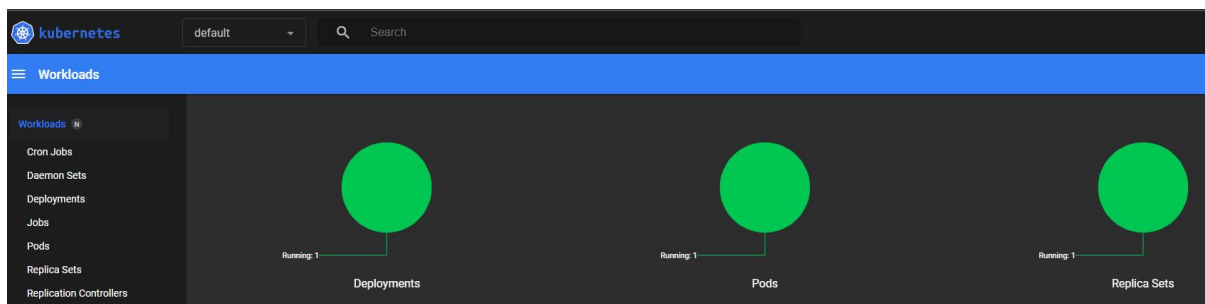
```
Administrator: Windows PowerShell
PS C:\WINDOWS\system32>
PS C:\WINDOWS\system32> kubectl get services
NAME         TYPE          CLUSTER-IP     EXTERNAL-IP    PORT(S)    AGE
kubernetes   ClusterIP     10.96.0.1      <none>         443/TCP    11m
PS C:\WINDOWS\system32>
PS C:\WINDOWS\system32> kubectl create deployment nginx-depl --image=nginx
deployment.apps/nginx-depl created
PS C:\WINDOWS\system32>
PS C:\WINDOWS\system32> kubectl get deployment
NAME          READY   UP-TO-DATE   AVAILABLE   AGE
nginx-depl    0/1     1            0           21s
PS C:\WINDOWS\system32>
PS C:\WINDOWS\system32> kubectl get pod
NAME                        READY   STATUS    RESTARTS   AGE
nginx-depl-56cb8b6d7-w8868  1/1     Running   0          55s
PS C:\WINDOWS\system32>
PS C:\WINDOWS\system32> kubectl get replicaset
NAME                  DESIRED   CURRENT   READY   AGE
nginx-depl-56cb8b6d7  1         1         1       74s
PS C:\WINDOWS\system32>
PS C:\WINDOWS\system32> kubectl create deployment mongo-depl --image=mongo
deployment.apps/mongo-depl created
PS C:\WINDOWS\system32>
PS C:\WINDOWS\system32> kubectl get pod
NAME                        READY   STATUS             RESTARTS   AGE
mongo-depl-5ccf565747-5gdhd 0/1     ContainerCreating  0          13s
nginx-depl-56cb8b6d7-w8868  1/1     Running            0          3m
PS C:\WINDOWS\system32>
```

```
PS C:\WINDOWS\system32>
PS C:\WINDOWS\system32> kubectl exec -it mongo-depl-5ccf565747-5gdhd -- bin/bash
root@mongo-depl-5ccf565747-5gdhd:/# ls
bin   data  docker-entrypoint-initdb.d  home      lib     lib64   media  opt   root  sbin  sys  usr
boot  dev   etc                         js-yaml.js lib32  libx32  mnt    proc  run   srv   tmp  var
root@mongo-depl-5ccf565747-5gdhd:/# exit
exit
PS C:\WINDOWS\system32> kubectl logs mongo-depl-5ccf565747-5gdhd
```
```
{"t":{"$date":"2023-04-26T06:45:52.535+00:00"},"s":"I",  "c":"CONTROL",  "id":23285,    "ctx":"-","msg":"Automatically disabling TLS 1.0, to force-enable TLS 1
.0 specify --sslDisabledProtocols 'none'"}
{"t":{"$date":"2023-04-26T06:45:52.536+00:00"},"s":"I",  "c":"NETWORK",  "id":4915701, "ctx":"main","msg":"Initialized wire specification","attr":{"spec":{"in
comingExternalClient":{"minWireVersion":0,"maxWireVersion":17},"incomingInternalClient":{"minWireVersion":0,"maxWireVersion":17},"outgoing":{"minWireVersion":
6,"maxWireVersion":17},"isInternalClient":true}}}
{"t":{"$date":"2023-04-26T06:45:52.538+00:00"},"s":"I",  "c":"NETWORK",  "id":4648601, "ctx":"main","msg":"Implicit TCP FastOpen unavailable. If TCP FastOpen
is required, set tcpFastOpenServer, tcpFastOpenClient, and tcpFastOpenQueueSize."}
{"t":{"$date":"2023-04-26T06:45:52.539+00:00"},"s":"I",  "c":"REPL",     "id":5123008, "ctx":"main","msg":"Successfully registered PrimaryOnlyService","attr":
{"service":"TenantMigrationDonorService","namespace":"config.tenantMigrationDonors"}}
{"t":{"$date":"2023-04-26T06:45:52.539+00:00"},"s":"I",  "c":"REPL",     "id":5123008, "ctx":"main","msg":"Successfully registered PrimaryOnlyService","attr":
{"service":"TenantMigrationRecipientService","namespace":"config.tenantMigrationRecipients"}}
{"t":{"$date":"2023-04-26T06:45:52.539+00:00"},"s":"I",  "c":"REPL",     "id":5123008, "ctx":"main","msg":"Successfully registered PrimaryOnlyService","attr":
{"service":"ShardSplitDonorService","namespace":"config.tenantSplitDonors"}}
```

TO DELETE THE DEPLOYMENT


```
PS C:\WINDOWS\system32> kubectl get pod
NAME                            READY    STATUS     RESTARTS    AGE
mongo-depl-5ccf565747-5gdhd     1/1      Running    0           6m8s
nginx-depl-56cb8b6d7-w8868      1/1      Running    0           8m55s
PS C:\WINDOWS\system32> kubectl get deployment
NAME         READY    UP-TO-DATE    AVAILABLE    AGE
mongo-depl   1/1      1             1            6m12s
nginx-depl   1/1      1             1            8m59s
PS C:\WINDOWS\system32> kubectl delete deployment nginx-depl-56cb8b6d7-w8868
Error from server (NotFound): deployments.apps "nginx-depl-56cb8b6d7-w8868" not found
PS C:\WINDOWS\system32>
PS C:\WINDOWS\system32> kubectl delete deployment nginx-depl
deployment.apps "nginx-depl" deleted
PS C:\WINDOWS\system32>
```

Minikube Dashboard

DOCKER DESKTOP

	Name	Tag	Status	Created	Size	Actions
☐	gcr.io/k8s-minikube/kicbase 67a4b1138d2d	v0.0.39	In use	22 days ago	1.05 GB	▶ ⋮ 🗑
☐	hubproxy.docker.internal:5555/docker/desktop-k 2511e1796e7d	kubernetes-v1	Unused	5 months ago	398.1 MB	▶ ⋮ 🗑
☐	registry.k8s.io/kube-apiserver 00631e54acba	v1.25.4	Unused	6 months ago	127.74 MB	▶ ⋮ 🗑
☐	registry.k8s.io/kube-controller-manager 8f59f6dfaed6	v1.25.4	Unused	6 months ago	117.09 MB	▶ ⋮ 🗑
☐	registry.k8s.io/kube-proxy 2c2bc1864279	v1.25.4	Unused	6 months ago	61.69 MB	▶ ⋮ 🗑

Showing 14 items

RAM 7.30 GB   CPU 1.76%   ⚡ Not connected to Hub   v4.18.0