

Basic commands to check version of minikube, kubectl configuration and to check services.

```
Command Prompt

C:\Users\hits>minikube version
minikube version: v1.30.1
commit: 08896fd1dc362c097c925146c4a0d0dac715ace0

C:\Users\hits>kubectl config view
apiVersion: v1
clusters:
- cluster:
  certificate-authority: C:\Users\hits\.minikube\ca.crt
  extensions:
  - extension:
    last-update: Thu, 27 Apr 2023 16:32:09 IST
    provider: minikube.sigs.k8s.io
    version: v1.30.1
    name: cluster_info
    server: https://127.0.0.1:56538
  name: minikube
contexts:
- context:
  cluster: minikube
  extensions:
  - extension:
    last-update: Thu, 27 Apr 2023 16:32:09 IST
    provider: minikube.sigs.k8s.io
    version: v1.30.1
    name: context_info
    namespace: default
    user: minikube
  name: minikube
current-context: minikube
kind: Config
preferences: {}
users:
- name: minikube
  user:
    client-certificate: C:\Users\hits\.minikube\profiles\minikube\client.crt
    client-key: C:\Users\hits\.minikube\profiles\minikube\client.key

C:\Users\hits>kubectl get service
NAME      TYPE      CLUSTER-IP      EXTERNAL-IP      PORT(S)      AGE
kubernetes ClusterIP  10.96.0.1        <none>           443/TCP       24h
my-app    ClusterIP  10.106.209.25    <none>           8080/TCP,8443/TCP 129m
```

Added nginx image to docker image

```
Command Prompt

C:\Users\hits>docker pull nginx
Using default tag: latest
latest: Pulling from library/nginx
26c5c85e47da: Pull complete
4f3256bdf66b: Pull complete
2019c71d5655: Pull complete
8c767b4b0c9ae: Pull complete
78e14bb05fd3: Pull complete
75576236abf5: Pull complete
Digest: sha256:63b44e8ddb83d5dd8020327c1f40436e37a6fffd3ef2498a6204df23be6e7e94
Status: Downloaded newer image for nginx:latest
docker.io/library/nginx:latest

C:\Users\hits>docker images
REPOSITORY          TAG      IMAGE ID      CREATED      SIZE
hitendramhatre/my-react-app   latest   f45b20d714a7   2 days ago   1.07GB
my-react-app           latest   f45b20d714a7   2 days ago   1.07GB
hitendramhatre/springbootmysql latest   fa55ef1adb09   2 days ago   158MB
springbootmysql        latest   fa55ef1adb09   2 days ago   158MB
nginx                  latest   6efc10a0510f   2 weeks ago   142MB
gcr.io/k8s-minikube/kicbase   v0.0.30  67a4b1138d2d   3 weeks ago   1.05GB
hitendramhatre/mysql      8.0.30   dbaea59d1b41   6 months ago  449MB
mysql                  8.0.30   dbaea59d1b41   6 months ago  449MB

C:\Users\hits>
```

Started minikube. With this image/ container and volume got created in docker as shown below.

```
Command Prompt

C:\Users\hits>minikube start
* minikube v1.30.1 on Microsoft Windows 10 Enterprise N 10.0.19044.1288 Build 19044.1288
* Using the docker driver based on existing profile
* Starting control plane node minikube in cluster minikube
* Pulling base image ...
* Restarting existing docker container for "minikube" ...
* Preparing Kubernetes v1.26.3 on Docker 23.0.2 ...
* Configuring bridge CNI (Container Networking Interface) ...
* 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

C:\Users\hits>docker ps
CONTAINER ID   IMAGE                                     COMMAND                  CREATED        STATUS        PORTS
940c7ff547b4   gcr.io/k8s-minikube/kicbase:v0.0.30    "/usr/local/bin/entr..." 25 hours ago   Up About a minute 127.0.0.1:56534->22/tcp, 127.0.0.1:56535->2376/tcp, 127.0.0.1:56537->5000/tcp, 127.0.0.1:56538->8443/tcp, 127.0.0.1:56536->32443/tcp minikube
```

Docker Desktop

Upgrade plan

Search for local and remote images, containers, and more...

Ctrl+K

hitendr...

Containers

Images

Volumes

Dev Environments BETA

Learning Center

Extensions

Add Extensions

Images

[Give feedback](#)

An image is a read-only template with instructions for creating a Docker container. [Learn more](#)

Local

Hub

Artifactory EARLY ACCESS

2.73 GB / 2.73 GB in use

8 images

Last refresh: 28 minutes ago

Search

<input type="checkbox"/>	Name	Tag	Status	Created	Size	Actions
<input type="checkbox"/>	gcr.io/k8s-minikube/kicbase 67a4b1138d2d	v0.0.39	In use	24 days ago	1.05 GB	
<input type="checkbox"/>	hitendramhatre/my-react-app f45b20d714a7	latest	In use	3 days ago	1.07 GB	
<input type="checkbox"/>	hitendramhatre/mysql dbaea59d1b41	8.0.30	In use	7 months ago	449 MB	
<input type="checkbox"/>	hitendramhatre/springbootmysql fa55ef1adbb9	latest	In use	3 days ago	157.72 MB	
<input type="checkbox"/>	my-react-app f45b20d714a7	latest	In use	3 days ago	1.07 GB	
<input type="checkbox"/>	mysql 8 0 30	8 0 30	In use	7 months ago	449 MB	

Showing 8 items

RAM 8.27 GB

CPU 11.08%

Connected to Hub

v4.18.0

Docker Desktop

Upgrade plan

Search for local and remote images, containers, and more...

Ctrl+K

hitendr...

Containers

Images

Volumes

Dev Environments BETA

Learning Center

Extensions

Add Extensions

Containers

[Give feedback](#)

A container packages up code and its dependencies so the application runs quickly and reliably from one computing environment to another. [Learn more](#)

Search

☐ Only show running containers

<input type="checkbox"/>	Name	Image	Status	Port(s)	Last started	Actions
<input type="checkbox"/>	mysql 2a4f42b65e2b	hitendramhatre/mysql:8.0.30	Exited (255)		23 hours ago	
<input type="checkbox"/>	minikube 940c7ff547b4	gcr.io/k8s-minikube/kicbase:v0.0.3	Running		24 minutes ago	
<input type="checkbox"/>	busy_williams ab563aec0c7b	my-react-app	Exited	3000:3000	2 days ago	
<input type="checkbox"/>	springboot-container 307d63358ab4	springbootmysql	Exited (143)	8080:8080	2 days ago	
<input type="checkbox"/>	mysql b05d18949288	mysql:8.0.30	Exited		2 days ago	
<input type="checkbox"/>	etourthree	-	Exited		3 hours ago	
<input type="checkbox"/>	server-1 b1fa8bacde70	springbootmysql	Exited (143)	8080:8080	3 hours ago	
<input type="checkbox"/>	mysql 41b4ec0fa9cd	mysql:8.0.30	Exited	3307:3306	3 hours ago	

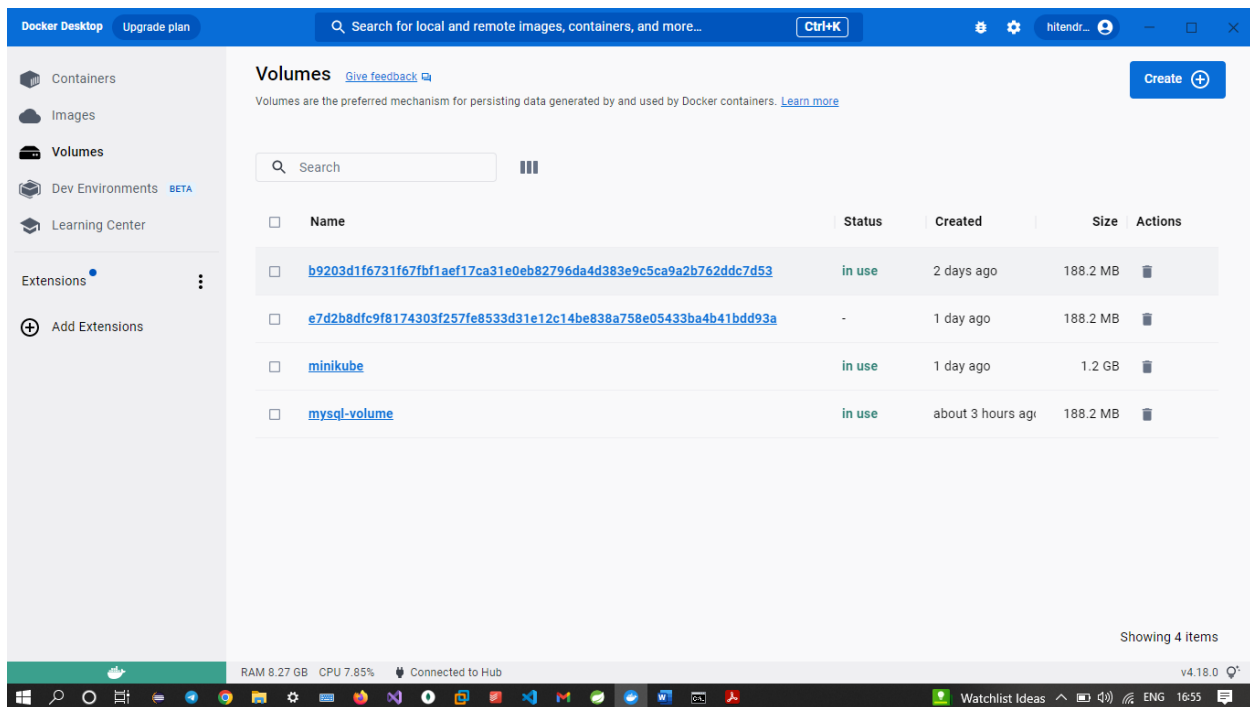
Showing 9 items

RAM 8.27 GB

CPU 9.16%

Connected to Hub

v4.18.0



Deployed nginx image into kubernetes and checked description of same.

```
C:\Users\hits>kubectl create deployment nginx-img --image=nginx
deployment.apps/nginx-img created

C:\Users\hits>kubectl get deployment
NAME          READY   UP-TO-DATE   AVAILABLE   AGE
my-app        0/1     1             0           124m
nginx-img     0/1     1             0           18s

C:\Users\hits>kubectl get pod
NAME          READY   STATUS    RESTARTS   AGE
my-app-78f444cf54-j1u4  0/3     Pending   0           125m
nginx-img-746dfd4b85-6wgjg  1/1     Running   0           49s

C:\Users\hits>kubectl get replicaset
NAME          DESIRED   CURRENT   READY   AGE
my-app-78f444cf54  1         1         0       125m
nginx-img-746dfd4b85  1         1         1       71s

C:\Users\hits>kubectl describe deployment
Name:          my-app
Namespace:     default
CreationTimestamp: Thu, 27 Apr 2023 14:29:17 +0530
Labels:        <none>
Annotations:   deployment.kubernetes.io/revision: 1
Selector:      app=my-app
Replicas:      1 desired | 1 updated | 1 total | 0 available | 1 unavailable
StrategyType:  RollingUpdate
MinReadySeconds: 0
RollingUpdateStrategy: 25% max unavailable, 25% max surge
Pod Template:
  Labels:  app=my-app
  Containers:
    my-app:
      Image:      my-react-app
      Port:       3800/TCP
      Host Port:  0/TCP
      Environment: <none>
      Mounts:      <none>
    spring-boot-app:
      Image:      springbootmysql
      Port:       8080/TCP
      Host Port:  0/TCP
      Environment: <none>
```

Deleted my-app from deployment list.

```
Command Prompt

C:\Users\hits>kubectl get deploy -A
NAMESPACE   NAME       READY   UP-TO-DATE   AVAILABLE   AGE
default     my-app     0/1     1            0           130m
default     nginx-img  1/1     1            1           6m23s
kube-system  coredns    1/1     1            1           25h

C:\Users\hits>kubectl delete -f C:\Users\hits\Documents\workspace-sts-3.8.0.RELEASE\EtourThree\my-app-deployment.yaml
service "my-app" deleted
deployment.apps "my-app" deleted

C:\Users\hits>kubectl get deploy -A
NAMESPACE   NAME       READY   UP-TO-DATE   AVAILABLE   AGE
default     nginx-img  1/1     1            1           9m39s
kube-system  coredns    1/1     1            1           25h

C:\Users\hits>
```

Forwarded nginx-image to port 8081:8081

```
Command Prompt - kubectl port-forward nginx-img-746dfd4b85-6wgjg 8081:8081

C:\Users\hits>kubectl expose deploy nginx-img --type=ClusterIp --port=8081
The Service "nginx-img" is invalid: spec.type: Unsupported value: "ClusterIp": supported values: "ClusterIP", "ExternalName", "LoadBalancer", "NodePort"

C:\Users\hits>kubectl get pod
NAME                                READY   STATUS    RESTARTS   AGE
nginx-img-746dfd4b85-6wgjg          1/1     Running   0           14m

C:\Users\hits>kubectl port-forward nginx-img-746dfd4b85-6wgjg 8081:8081
Forwarding from 127.0.0.1:8081 -> 8081
Forwarding from [::1]:8081 -> 8081
```