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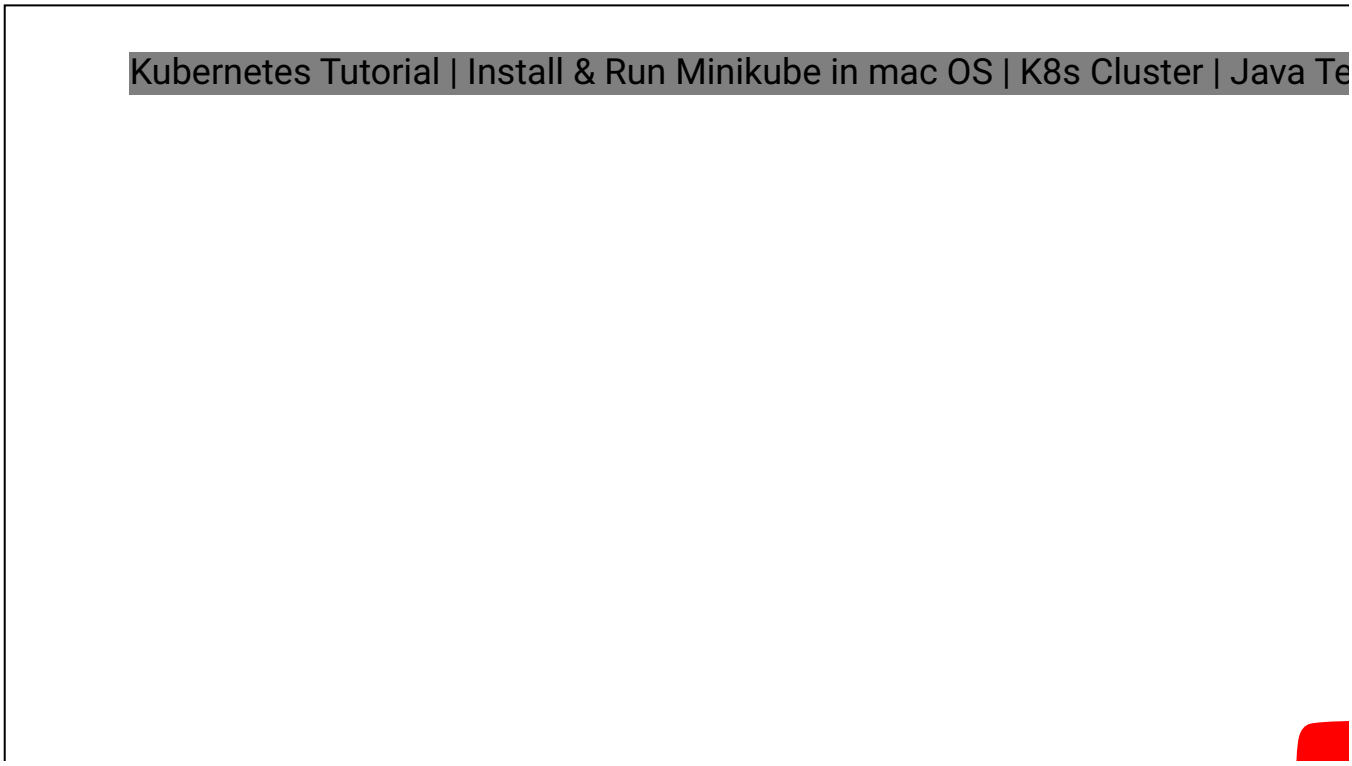
Kubernetes Tutorial | Install & Run Minikube in mac OS | K8s Cluster



you can try out Kubernetes for your daily development work.

How to install Minikube ?

Let's start with installation steps

Step 1:

To check if virtualization is supported on macOS, run the following command on your terminal.

```
sysctl -a | grep -E --color 'machdep.cpu.features|VMX'
```

If you see `VMX` in the output (should be colored), the VT-x feature is enabled in your machine.

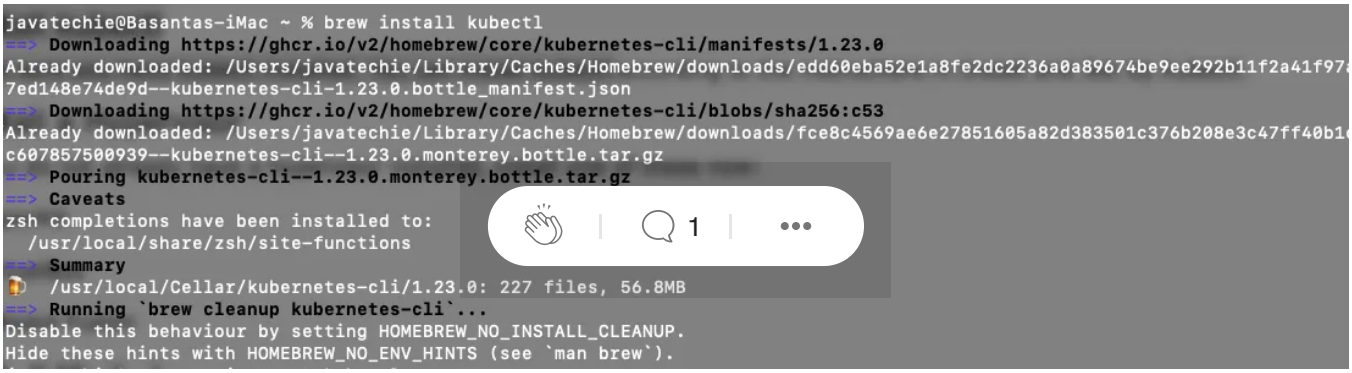
Step 2:

Make sure you have kubectl installed. You can install kubectl using below command

```
brew install kubectl
```

I hope everyone aware about what Homebrew does ? if not just recap once

Homebrew is a free and open-source software package manager in mac. that simplifies the installation of software on macOS, as well as Linux



Verify kubectl version

```
kubectl version
```

```
javatechie@Basantas-iMac ~ % kubectl version
Client Version: version.Info{Major:"1", Minor:"23", GitVersion:"v1.23.0", GitCommit:"ab69524f795c42094a6630298ff53f3c3ebab7
f4", GitTreeState:"clean", BuildDate:"2021-12-07T18:08:39Z", GoVersion:"go1.17.3", Compiler:"gc", Platform:"darwin/amd64"}
The connection to the server localhost:8080 was refused - did you specify the right host or port?
javatechie@Basantas-iMac ~ %
```

Step 4 :

Install a Hypervisor
If you do not already have a hypervisor installed, install one of these now:

• HyperKit

• VirtualBox

- VMware Fusion

We will install HyperKit to run our Minikube

```
brew install hyperkit
```

```
javatechie@Basantas-iMac ~ % brew install hyperkit
==> Downloading https://ghcr.io/v2/homebrew/core/hyperkit/manifests/0.20200908
Already downloaded: /Users/javatechie/Library/Caches/Homebrew/downloads/db4baa34ee2a779e1db4861dd34db8b2fc91786b2b7d32775b5
e5de7f47af42a--hyperkit-0.20200908.bottle_manifest.json
==> Downloading https://ghcr.io/v2/homebrew/core/hyperkit/blobs/sha256:26a203b17733ff5166d8c31069e3ecd5af15c74448a51d8b6826
89cb07e911e8
Already downloaded: /Users/javatechie/Library/Caches/Homebrew/downloads/0ba7a770088a60dd6275860b0407ad95191aa6ddde0207b446e
17a144b0e7a33--hyperkit--0.20200908.catalina.bottle.tar.gz
==> Pouring hyperkit--0.20200908.catalina.bottle.tar.gz
🍺  /usr/local/Cellar/hyperkit/0.20200908: 5 files, 4.3MB
==> Running `brew cleanup hyperkit`...
Disable this behaviour by setting HOMEBREW_NO_INSTALL_CLEANUP.
Hide these hints with HOMEBREW_NO_ENV_HINTS (see `man brew`).
javatechie@Basantas-iMac ~ %
```

Verify that you installed kubectl & HyperKit successfully in your mac using

```
brew list
```

```
javatechie — -zsh — 123×23
javatechie@Basantas-iMac ~ % brew list
==> Formulae
gettext         git             hyperkit        kubernetes-cli  libev           pcre2
javatechie@Basantas-iMac ~ %
```

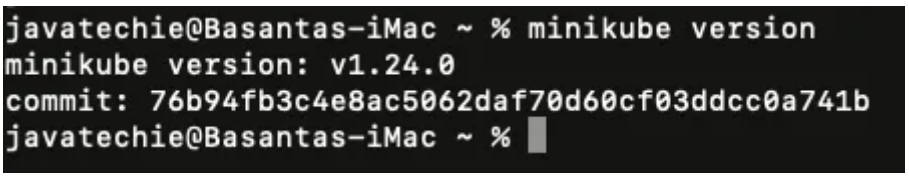
Step 5 :

Install Minikube

The easiest way to install Minikube on macOS is using Homebrew

```
brew install minikube
```


```
minikube version
```



We successfully setup minikube in our mac now we are good to start minikube

Step 6 :

```
minikube start
```

```
javatechie@Basantas-iMac ~ % minikube start
😄  minikube v1.24.0 on Darwin 12.0.1
✨  Automatically selected the hyperkit driver
👍  Starting control plane node minikube in cluster minikube
🔥  Creating hyperkit VM (CPUs=2, Memory=4000MB, Disk=20000MB) ...
🐳  Preparing Kubernetes v1.22.3 on Docker 20.10.8 ...
    ▪ 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
javatechie@Basantas-iMac ~ %
```

if you observe the statement above , minikube choose default driver as hyperkit , that's what we installed as Hypervisor

Once minikube started successfully , we can verify its status

```
minikube status
```

If your cluster is running, the output from `minikube status` should be similar to:

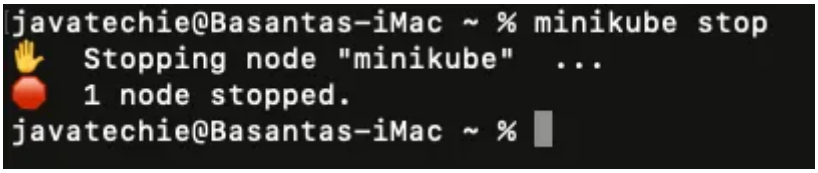
```
javatechie@Basantas-iMac ~ % minikube status
minikube
type: Control Plane
host: Running
kubelet: Running
apiserver: Running
kubeconfig: Configured

javatechie@Basantas-iMac ~ %
```

Step 7:

After you have confirmed whether Minikube is working with your chosen hypervisor, you can continue to use Minikube or you can stop your cluster. To stop your cluster, run:

```
minikube stop
```

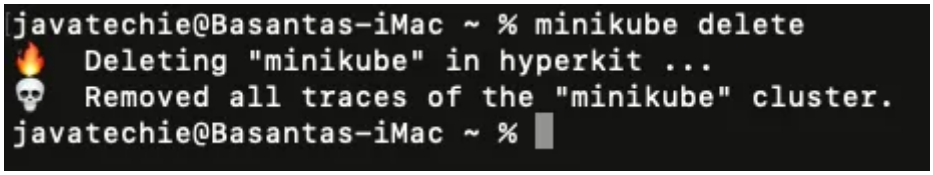


Step 8:

Delete minikube

```
minikube delete
```

Deletes a local Kubernetes cluster. This command deletes the VM, and removes all associated files.



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Thank you ....

Kubernetes Minikube Javatechie