

MINI KUBE:

Minikube creates a single node cluster inside a VM or Cloud Instance. It is good for beginners to learn Kubernetes since you don't have to create a master and worker node to create a cluster and we can practice basic Kubernetes functions and can also install the Kubernetes dashboard on it.

PRE-REQUISITES

- Minimum 2 CPU's or more
- Minimum 2GB of free memory
- Minimum 20GB of free disk space
- Internet connection
- Container or virtual machine manager, such as: Docker, Hyperkit, Hyper-V, KVM, Parallels, Podman, VirtualBox, or VMware Fusion/Workstation

MINI KUBE INSTALLATION:

- `sudo apt update -y`
- `curl -LO https://storage.googleapis.com/kubernetes-release/release/`curl -s https://storage.googleapis.com/kubernetes-release/release/stable.txt`/bin/linux/amd64/kubectl`
- `chmod +x ./kubectl`
- `sudo mv ./kubectl /usr/local/bin/kubectl` Copied!
- `kubectl version`

DOCKER INSTALLATION:

- `sudo apt-get install docker.io -y`
- `sudo systemctl status docker`
- `sudo usermod -aG docker $USER && newgrp docker`

MINIKUBE INSTALLATION:

- `curl -Lo minikube https://storage.googleapis.com/minikube/releases/latest/minikube-linux-amd64`
- `chmod +x minikube`
- `sudo mv minikube /usr/local/bin/`
- `minikube version`
- `sudo minikube start --vm-driver=none`
- X Exiting due to GUEST_MISSING_CONTRACK: Sorry, Kubernetes 1.22.3 requires conntrack to be installed in root's path
- `sudo apt-get install -y conntrack`
- `minikube start --vm-driver=none`
- `minikube status`
- `kubectl cluster-info`
- `kubectl get events`
- `kubectl config view`
- `kubectl run hello-minikube --image=gcr.io/google_containers/echoserver:1.4 --port=8080`
- `kubectl get pods`

DEPLOYING AN APP

- `kubectl create deployment hello-node --image=k8s.gcr.io/echoserver:1.4`
- `kubectl get deployment`
- `kubectl expose deployment hello-node --type=NodePort --port=8080`Copied!
- `kubectl get svc`
- `curl -v public-ip:32548`
- `minikube ip`
- `curl -v private-ip:32548`
- <http://private-ip:32548/>
- `kubectl delete service hello-node`
- `kubectl delete deployment hello-node`
- `minikube stop`
- `minikube delete`
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