

***** Install Docker CE Edition *****

1. sudo apt-get update
2. sudo apt-get install \
apt-transport-https \
ca-certificates \
curl \
software-properties-common
3. curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo apt-key add -
4. sudo add-apt-repository \
"deb [arch=amd64] https://download.docker.com/linux/ubuntu \
\$(lsb_release -cs) \
stable"
5. sudo apt-get update
6. sudo apt-get install docker-ce
7. docker version

***** Install KubeCtl *****

1. curl -LO https://storage.googleapis.com/kubernetes-release/release/\$(curl -s https://storage.googleapis.com/kubernetes-release/release/stable.txt)/bin/linux/amd64/kubectl
2. chmod +x ./kubectl
3. sudo mv ./kubectl /usr/local/bin/kubectl
4. kubectl version

***** Install MiniKube *****

1. curl -Lo minikube https://storage.googleapis.com/minikube/releases/latest/minikube-linux-amd64 && chmod +x minikube
2. sudo install minikube /usr/local/bin

***** Install VirtualBox *****

1. wget -q https://www.virtualbox.org/download/oracle_vbox_2016.asc -O- | sudo apt-key add -
2. sudo apt-get update
3. sudo apt-get install virtualbox

***** Execute MiniKube & Create Cluster *****

1. minikube start

***** Interact Cluster Using KubeCtl *****

Let's create a Kubernetes Deployment using an existing image named echoserver, which is a simple HTTP server and expose it on port 8080 using --port.

1. `kubectl run hello-minikube --image=k8s.gcr.io/echoserver:1.10 --port=8080`

We can inspect the pods and the deployments

2. `kubectl get pod`
3. `kubectl get deployments`

In order to access the hello-minikube service, we must first expose the deployment to an external IP via the command:

4. `kubectl expose deployment hello-minikube --type=NodePort`

Check if the service was exposed

5. `kubectl get services`

Get the URL of the exposed Service to view the Service details:

6. `minikube service hello-minikube --url`

Now we can either curl the service from the CLI, or hit it via the browser.

7. `curl $(minikube service hello-minikube --url)`
8. `curl <URL>`

Delete the Service

9. `kubectl delete services hello-minikube`
10. `kubectl delete deployment hello-minikube`

Stop the local Minikube cluster:

11. `minikube stop`