Install Minikube, Kubectl on Linux (Ubuntu)

Installation Instructions

- Install kubectl

https://kubernetes.io/docs/tasks/tools/install-kubectl/

>curl -LO https://storage.googleapis.com/kubernetes-release/release/$(curl -s https://storage.googleapis.com/kubernetes-release/release/stable.txt)/bin/linux/amd64/kubectl

Kubectl Installation

https://kubernetes.io/docs/tasks/tools/install-kubectl/

>chmod +x ./kubectl

- Move the binary to system path

>sudo mv ./kubectl /usr/local/bin/kubectl

- Verify installation

>kubectl version

Docker Installation

Install Docker on Ubuntu

>sudo apt-get update && sudo apt-get install docker.io –y

>sudo systemctl status/start/enable docker

Add ubuntu user to docker group

>sudo usermod -aG docker ${USER}

Open up a new terminal (close the old one) & check docker

>docker run –it hello-world

Minikube Installation

https://kubernetes.io/docs/tasks/tools/install-minikube/

>curl -Lo minikube https://storage.googleapis.com/minikube/releases/latest/minikube-linux-amd64 **** && chmod +x minikube

>sudo install minikube /usr/local/bin

>minikube version

Minikube run

Need to have sudo rights to run minikube, either append sudo for every command or do a >sudo –i

#minikube start --vm-driver=none --cpus 1

#minikube status

host: Running

kubelet: Running

apiserver: Running

kubectl: Correctly Configured: pointing to minikube-vm at ….

Verify K8s installation

- Let us verify our K8s installation by running a simple deployment and exposing it as a service

#kubectl run hello-minikube --image=gcr.io/google_containers/echoserver:1.4 --port=8080

#kubectl expose deployment hello-minikube --type=NodePort

#kubectl get services

K8s ports

Master node(s)

Protocol	Direction	Port Range	Purpose	Used By
TCP	Inbound	6443*	Kubernetes API server	All
TCP	Inbound	2379-2380	etcd server client API	kube-apiserver, etcd
TCP	Inbound	10250	Kubelet API	Self, Control plane
TCP	Inbound	10251	kube-scheduler	Self
TCP	Inbound	10252	kube-controller-manager	Self

Worker node(s)

Protocol	Direction	Port Range	Purpose	Used By
TCP	Inbound	10250	Kubelet API	Self, Control plane
TCP	Inbound	30000-32767	NodePort Services**	All

Verify K8s installation

- You need to enable all required ports in security group
- Open up a browser and hit EXTERNAL_IP:nodeport IP

CLIENT VALUES: client_address=172.17.0.1 command=GET real path=/ query=nil request_version=1.1 request_uri=http://52.14.132.177:8080/

……..

……

- Installation Successful

Remove deployment

- Let us remove the sample deployment

>kubectl delete services hello-minikube

>kubectl delete deployment hello-minikube