KIND SETUP

```
$sudo apt install docker.io
$sudo groupadd docker
$sudo usermod -aG docker $USER
$newgrp docker
$sudo chmod 777
/var/run/docker.sock
$nano .bashrc
export GOROOT=/usr/lib/go
export GOPATH=$HOME/go
export
PATH=$PATH:$GOROOT/bin:$GOPATH/bin
$GO111MODULE="on" go get
sigs.k8s.io/kind@v0.8.1
$kind create cluster --config
kind-init-config.yaml
export
$KUBECONFIG=$KUBECONFIG:$HOME/.kub
e/config
```

RANCHER SETUP

```
$sudo docker run -d --
restart=unless-stopped -p 80:80 -p
443:443 rancher/rancher
https://localhost:443
```

Version:
Ubuntu18.04 TLS
Kernel; 4.15.0-29
Kubernetes v1.18

Kubernetes home lab

CNI: Flannel/Calico/Cilium

KIND
Control-Plane
172.18.0.2

KIND
Worker1
172.18.0.3

KIND
Worker2
172.18.0.4

Portainer UI
172.17.0.2
TCP: 9000/9000

Rancher UI
172.17.0.3
TCP: 80/443

ExposeTCP 9000 9000

ExposeTCP 80 443

Docker KIND Bridge=172.18.0.1/16

Docker0 Bridge=172.17.0.1/16

Docker Daemon v19.03.6

vscode+K8S Plugin

Kubectl

Chrome
https://localhost:443

RESTAPI CALL

kubeconfig=$HOME/.kube/config