# **Kubernetes Cheat Sheet**

#### What is Kubernetes?

Kubernetes is a platform for managing containerized workloads. Kubernetes orchestrates computing, networking and storage to provide a seamless portability across infrastructure providers.

## **Viewing Resource Information**

#### **Nodes**

- \$ kubectl get no
- \$ kubectl get no -o wide
- \$ kubectl describe no
- \$ kubectl get no -o yaml
- \$ kubectl get node --selector=[label\_name] \$ kubectl get nodes -o json-path='{.items[\*].status.addresses [?(@.type=="ExternallP")].address}'
- \$ kubectl top node [node\_name]

#### **Pods**

- \$ kubectl get po
- \$ kubectl get po -o wide
- \$ kubectl describe po
- \$ kubectl get po --show-labels
- \$ kubectl get po -1 app=nginx
- \$ kubectl get po -o yaml
- \$ kubectl get pod [pod\_name] -0 yaml --export
- \$ kubectl get pod [pod\_name] -o yaml --export> nameoffile.yaml
- \$ kubectl get pods --field-selector status.phase=Running

# **Namespaces**

- \$ kubectl get ns
- \$ kubectl get ns -o yaml
- \$ kubectl describe ns

## **Deployments**

- \$ kubectl get deploy
- \$ kubectl describe deploy
- \$ kubectl get deploy -o wide
- \$ kubectl get deploy -o yaml

#### Services

- \$ kubectl get SVC
- \$ kubectl describe SVC
- \$ kubectl get SVC -o wide
- \$ kubectl get SVC -o yaml
- \$ kubectl get SVC --show-labels

#### **DaemonSets**

- \$ kubectl get ds
- \$ kubectl get ds --all-namespaces
- \$ kubectl describe ds [daemonset\_name] -n [namespace\_name]
- \$ kubectl get ds [ds\_name] -n [ns\_name] -o yaml

#### **Events**

- \$ kubectl get events
- \$ kubectl get events -n kube-system
- \$ kubectl get events -w

# Logs

- \$ kubectl logs [pod\_name]
- \$ kubectl logs --since=1h [pod\_name]
- \$ kubectl logs --tail=20 [pod\_name]
- \$ kubectl logs -f -c [container\_name] [pod\_name]
- \$ kubectl logs [pod\_name] > pod.log

#### ServiceAccounts 5 1

- \$ kubectl get sa
- \$ kubectl get sa -o yaml
- \$ kubectl get serviceaccounts default -o yaml > ./sa.yaml
- \$ kubectl replace serviceaccount default -f ./sa.yaml

## **ReplicaSets**

- \$ kubectl get rs
- \$ kubectl describe rs
- \$ kubectl get rs -o wide
- \$ kubectl get rs -o yaml

#### Roles

- \$ kubectl get roles --all-namespaces
- \$ kubectl get roles --all-namespaces -o yaml

#### Secrets

- \$ kubectl get secrets
- \$ kubectl get secrets --all-namespaces
- \$ kubectl get secrets -o yaml

# ConfigMaps

- \$ kubectl get cm
- \$ kubectl get cm --all-namespaces
- \$ kubectl get cm --all-namespaces -o yaml

# Ingress

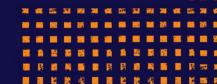
- \$ kubectl get ing
- \$ kubectl get ing --all-namespaces

#### **PersistentVolume**

- \$ kubectl get pv
- \$ kubectl describe pv

#### **PersistentVolumeClaim**

- \$ kubectl get pvc
- \$ kubectl describe pvc



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# **Viewing Resource Information(cont.)**

## **StorageClass**

\$ kubectl get sc

\$ kubectl get sc -o yaml

# **Multiple Resources**

\$ kubectl get SVC, po

\$ kubectl get deploy, no

\$ kubectl get all

\$ kubectl get all --all-namespaces

# **Changing Resource Attributes**

#### **Taint**

\$ kubectl taint [node\_name] [taint\_name]

#### Labels

\$ kubectl label [node\_name] disktype=ssd

\$ kubrectl label [pod\_name] env=prod

#### Cordon/Uncordon

\$ kubectl cordon [node\_name]

\$ kubectl uncordon [node\_name]

#### Drain

\$ kubectl drain [node\_name]

## Nodes/Pods

\$ kubectl delete node [node\_name]

\$ kubectl delete pod [pod\_name]

\$ kubectl edit node [node\_name]

\$ kubectl edit pod [pod\_name]

# **Deployments/Namespaces**

\$ kubectl edit deploy [deploy\_name]

\$ kubectl delete deploy [deploy\_name]

\$ kubectl expose deploy [deploy\_name] --port=80 --type=NodePort

\$ kubectl scale deploy [deploy\_name] --replicas= S

\$ kubectl delete ns

\$ kubectl edit ns [ns\_name]

#### Services

\$ kubectl edit svc [svc\_name]

\$ kubectl delete svc [svc\_name]

#### **DaemonSets**

\$ kubectl edit ds [ds\_name] -n kube-system

\$ kubectl delete ds [ds\_name]

#### **Services Accounts**

\$ kubectl edit sa [sa\_name]

\$ kubectl delete sa [sa\_name]

## Annotate

\$ kubectl annotate po [pod\_name] [annotation]

\$ kubectl annotate no [node\_name]

## **Adding Resources**

# **Creating a Pod**

\$ kubectl create -f [name\_of\_file]

\$ kubectl apply -f [name\_of\_file]

\$ kubectl run [pod\_name] --image=nginx --restart=Never

\$ kubectl run [pod\_name] --generator=run-pod/v1 --image=nginx

\$ kubectl run [pod\_name] --image=nginx --restart=Never

# **Creating a Service**

\$ kubectl create svc nodeport [svc\_name] --tcp=8080:80

## **Creating a Deployment**

\$ kubectl create -f [name\_of\_file]

\$ kubectl apply -f [name\_of\_file]

\$ kubectl create deploy [deploy\_name] --image=nginx

## **Interactive Pod**

\$ kubectl run [pod\_name] --image=busybox --rm -it --restart= Never -- sh

## **Output YAML to a File**

\$ kubectl create deploy [deploy\_name] --image=nginx --dry-run -o yaml > deploy.yam!

\$ kubectl get po [pod\_name] -o yaml --export > pod.yaml

## **Getting Help**

\$ kubectl -h

\$ kubectl create -h

\$ kubectl run -h

\$ kubectl explain deploy.spec

## Requests

#### **API Call**

\$ kubectl get --raw /apis/metrics.k8s.io/

#### **Cluster Info**

\$ kubectl config

\$ kubectl cluster-info

\$ kubectl get componentstatuses

