Kubernetes Cheatsheet

What is Kubernetes Kapsule and Kubernetes Kosmos?

Kubernetes is an open-source platform that enables developers to manage their containerized applications. Kapsule and Kosmo both provide a managed environment for creating, configuring, and running clusters of pre-configured machines.
Kapsule clusters are composed solely of Scaleway Instances whereas Kosmos is a managed Multi-Cloud Kubernetes Engine that allows you to connect Instances and virtual or dedicated servers from any cloud provider to a single managed Control-Plane.

Creating resources

Create resource(s) from file
```
kubectl apply -f [manifest].yaml
```

Updating resources

Apply a taint that has a key-value of taint=test with a NoSchedule effect
```
kubectl taint nodes [node-name] taint=test:NoSchedule
```

Mark node as unschedulable
```
kubectl cordon [node-name]
```

Mark node as schedulable
```
kubectl uncordon [node-name]
```

Drain node in preparation for maintenance
```
kubectl drain [node-name]
```

Viewing and finding resources

NODES

Display all node information
```
kubectl get no
```

Show more information about all nodes
```
kubectl get no -o wide
```

Display node details with verbose output
```
kubectl describe no
```

Filter the node with the specified label
```
kubectl get node --selector=[label_name]
```

Display node (CPU/memory) usage
```
kubectl top node [node_name]
```

PODS

Display all container group information
```
kubectl get po
```

Show more information about all pods
```
kubectl get po -o wide
```

Display pod details with verbose output
```
kubectl describe po
```

View the labels of the container group
```
kubectl get po --show-labels
```

Display pod usage (CPU/memory)
```
kubectl top pod [pod_name]
```

NAMESPACE

Display all namespace information
```
kubectl get ns
```

Display namespace details
```
kubectl describe ns
```

DEPLOYMENTS

Display all deployments information
```
kubectl get deploy
```

Display deployments details
```
kubectl describe deploy
```

Show more information about all deployments
```
kubectl get deploy -o wide
```

SERVICES

Display all services information
```
kubectl get svc
```

Display services details
```
kubectl describe svc
```

Show more information about all services
```
kubectl get svc -o wide
```

Display a pod's label
```
kubectl get svc --show-labels
```

DAEMON SETS

Display all daemon sets information
```
kubectl get ds
```

Display the detailed state of daemonsets within all namespace
```
kubectl describe ds --all-namespaces
```

Display the detailed state of daemonsets within a namespace
```
kubectl describe ds [daemonset_name] -n [namespace_name]
```

EVENTS

Display all events information
```
kubectl get events
```

Display events information within the namespace kube-system
```
kubectl get events -n kube-system
```

Lists the specific resources' events or the entire cluster
```
kubectl get events -w
```

LOGS

Display all logs information of a specific pod
```
kubectl logs [pod_name]
```

Display all logs information of a specific pod for the past hour
```
kubectl logs --since=1h [pod_name]
```

Display all logs information of a specific pod in a specific container
```
kubectl logs -f -c [container_name] [pod_name]
```

Transfer all logs information of a specific pod in the pod.log file
```
kubectl logs [pod_name] > pod.log
```

SERVICE ACCOUNT

Display all service account information
```
kubectl get sa
```

REPLICA SETS

Display all replica sets information
```
kubectl get rs
```

Display replicat sets details
```
kubectl describe rs
```

Show more information about replica sets
```
kubectl get rs -o wide
```

ROLES

Display all roles information within all namespaces
```
kubectl get roles --all-namespaces
```

SECRETS

Display all secrets information
```
kubectl get secrets
```

Display all secrets information within all namespaces
```
kubectl get secrets --all-namespaces
```

CONFIG MAPS

Display all config maps information
```
kubectl get cm
```

Display all config maps within all namespaces
```
kubectl get cm --all-namespaces
```

INGRESS

Display all ingress information
```
kubectl get ing
```

Display all ingress information within all namespaces
```
kubectl get ing --all-namespaces
```

PERSISTENT VOLUMES

Display all persistent volumes information
```
kubectl get pv
```

Display persistent volumes details
```
kubectl describe pv
```

PERSISTENT VOLUME CLAIM

Display all persistent volume claim information
```
kubectl get pvc
```

Display all persistent volume claim details
```
kubectl describe pvc
```

STORAGE CLASS

Display all storage class information
```
kubectl get sc
```

MULTIPLE RESOURCES

Display all services and pods information
```
kubectl get svc, po
```

Display all deploys and nodes information
```
kubectl get deploy, no
```

Display all the pods, services, statefulsets, etc. in a namespace. Not all the resources are listed using this command.
```
kubectl get all
```

Display all the pods, services, statefulsets, etc. in all namespaces. Not all the resources are listed using this command.
```
kubectl get all --all-namespaces
```

Scaleway