



## Kubernetes cheat sheet

By varelite

<https://varelite.com>

### Kubernetes Basic Commands

To get all namespace details.  
# kubectl get ns

To get details of specific namespace.  
# kubectl get ns -n default

To create a new namespace.  
# kubectl create ns vareliteprod

To delete any namespace.  
# kubectl delete ns vareliteprod

To get details of pods running in specific namespace.  
# kubectl get pods -n vareliteprod

To create a pod using command line.  
# kubectl run varelite --image=docker.io/nginx

To see the pods created.  
# kubectl get pod

To see some more details about pods.  
# kubectl get pod -o wide

To login to above created container.  
# kubectl exec -it varelite bash

To find details of your pod.  
# kubectl describe pod varelite

To see logs of container.  
# kubectl logs varelite

To see API events or logs.  
# kubectl get events

To delete a pod.  
# kubectl delete pod varelite

### Kubernetes Basic Commands

To get a yaml file of a pod.  
# kubectl run varelite --image=docker.io/nginx -dry-run -o yaml

To redirect above output to a file.  
# kubectl run varelite --image=docker.io/nginx -dry-run -o yaml > varelite.yaml

To create a pod using above file.  
# kubectl create -f varelite.yaml

To list all resources of Kubernetes.  
# kubectl api-resources

To list details of a resource.  
# kubectl explain Pod

To go into deeper of each resource.  
# kubectl explain Pod.kind

# kubectl explain Pod.spec.containers



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### RBAC (Role Based Access Controller)

To list cluster roles

```
# kubectl get clusterroles
```

To create a ClusterRoleBinding

```
# kubectl create clusterrolebinding var --  
clusterrole=cluster-admin --user=varelite
```

To list all clusterrolebinding

```
# kubectl get clusterrolebinding
```

You can grep created one from it.

```
# kubectl get clusterrolebinding | grep -i var
```

See details of your clusterrolebinding

```
# kubectl describe clusterrolebinding var
```

To see authorization from Bation Node

```
# kubectl auth can-i list nodes --  
kubeconfig=/root/varelite.conf
```

To see details of Authorization.

```
# kubectl config get-contexts
```

You can delete the same with below command

```
# kubectl delete clusterrolebinding var
```

To create a rolebinding at namespace level

```
# kubectl create rolebinding var --  
clusterrole=cluster-admin --user=varelite -n  
default
```

You can check rolebinding using below  
command

```
# kubectl get rolebinding -n default
```

To create a custom roles.

```
# kubectl create clusterrole pod-read --  
resource=pod --verb=list
```

### RBAC (Role Based Access Controller)

To delete that custom roles.

```
# kubectl delete clusterrole pod-read
```

To create a service account

```
# kubectl create sa varelite1
```

To view details of service account.

```
# kubectl get sa
```

To create a service account token

```
# kubectl create token varelite1
```



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### Kubernetes Volume

To check current configured PVs.

```
# kubectl get pv
```

To edit any PV.

```
# kubectl edit pv my-pv
```

### Replication Controller

To create a replication controller using a yaml file.

```
# kubectl edit rc nginx
```

To see how many rc are running it.

```
# kubectl get rc
```

To scale its replicas 3 was running, I made it to 4.

```
# kubectl scale --replicas=4 rc nginx
```

To delete rc, keep pods running.

```
# kubectl delete rc nginx --cascade=orphan
```

To label a pod using command line.

```
# kubectl label pod varelite color=blue
```

To see assigned labels of all running pods.

```
# kubectl get pods --show-labels
```

To see labels of assigned pod.

```
# kubectl get pods varelite --show-labels
```

To find pod on the basis of labels.

```
# kubectl get pods -l color=blue
```

### Replication Controller

To change a label value of a pod.

```
# kubectl label pods varelite color=red --overwrite
```

To grep some value from a pod.

```
# kubectl describe pod varelite | grep -i controller
```

To describe a RC.

```
# kubectl describe rc nginx
```

### Replication Set

**Note: You can simply replace "rc" via "rs" in Replication Controller commands if you want to check details of RS (Replica Set).**



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### Kubernetes Compute Quota and Resource Quota

To find details of a worker node.  
# kubectl describe node worker1

To find hardware committed for worker node.  
# kubectl describe node worker1 | grep -iA5 'allocated'

To create a new namespace for setting quota.  
# kubectl create ns varelite

To create quota for above namespace.  
# kubectl create quota var --  
hard=cpu=400m,memory=400Mi -n varelite

To see all quota in namespace.  
# kubectl get quota -n varelite

To see quota details with its name in namespace.  
# kubectl describe quota var -n varelite

**Note: If you have set quota at namespace level then you must define quota at deployment as well.**

To create a yaml file using dry run after that you can edit the yaml file of deployment to deploy it.  
# kubectl run varelite7 --image=nginx -n varelite --dry-run -o yaml > varelite7.yaml

To create the above deployment.  
# kubectl create -f varelite7.yaml

To see pods in above deployment.  
# kubectl get pods -n varelite

### Kubernetes Compute Quota and Resource Quota

To edit quota limit on namespace, It will open yaml and you can edit it.  
# kubectl edit quota -n varelite

To delete quota configured on namespace.  
# kubectl delete quota var -n varelite

To set Resource or Object Quota.  
# kubectl create quota var --  
hard=cpu=400m,memory=400Mi,pods=4 -n varelite

**Note: You can use above edit, delete commands on Resource or Object Quota.**

To check set limit range.  
# kubectl get limits -n varelite

To check limits in details.  
# kubectl describe limits -n varelite

To delete limit range.  
# kubectl delete -f limit -n varelite