Namespaces are **Kubernetes objects which partition a single Kubernetes cluster into multiple virtual clusters**. Each Kubernetes namespace provides the scope for Kubernetes Names it contains; which means that using the combination of an object name and a Namespace, each object gets an unique identity across the cluster.

\*\* namespace are **not belongs** to **volumes** and **nodes**, it belongs to remaining all kubernetes objects

$ kubectl create namespace surya

$ vi nginx.yml

apiVersion: v1

kind: ReplicationController

metadata:

namespace: surya

name: nginx

spec:

replicas: 3

selector:

app: nginx

template:

metadata:

name: nginx

labels:

app: nginx

spec:

containers:

- name: nginx

image: nginx

ports:

- containerPort: 80

$ kubectl create -f nginx.yml

[root@ip-172-31-27-78 centos]# kubectl create -f nginx.yml

replicationcontroller/nginx created

[root@ip-172-31-27-78 centos]# kubectl get pods

NAME READY STATUS RESTARTS AGE

nginx-fkb4l 1/1 Running 1 15h

nginx-jgjct 1/1 Running 1 15h

[root@ip-172-31-27-78 centos]# kubectl get pods surya

Error from server (NotFound): pods "surya" not found

[root@ip-172-31-27-78 centos]# kubectl get pods -n surya

NAME READY STATUS RESTARTS AGE

nginx-8n5dg 1/1 Running 0 47s

nginx-j47xp 1/1 Running 0 47s

nginx-n6jhb 1/1 Running 0 47s

[root@ip-172-31-27-78 centos]# kubectl get namespaces

NAME STATUS AGE

default Active 20h

kube-node-lease Active 20h

kube-public Active 20h

kube-system Active 20h

surya Active 9m