#048 Kubernetes - namespaces 1

Introduction

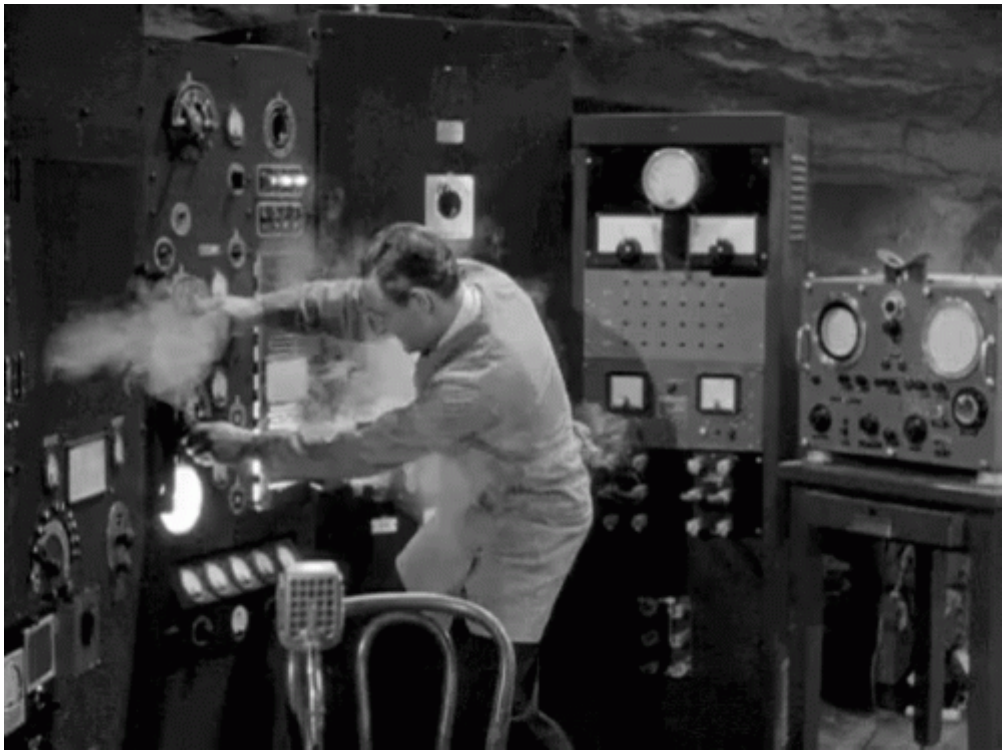
this is part 48 from the journey it's a long journey(360 day) so go please check previous parts , and if you need to walk in the journey with me please make sure to follow because I may post more than once in 1 Day but surely I will post daily at least one 😍.

And I will cover lot of tools as we move on.

Namespaces

namespace in general is logical separator used to make sure that process or in case of programming variables with same name are isolated by a logical name.
In Kubernetes it is the same we use namespaces in large projects to divide a cluster into small isolated clusters using namespaces.

Lab



the default Kubernetes is guess what? default.
to get namespaces we type

```
in ~
> kubectl get ns
NAME                   STATUS   AGE
default                Active   3d23h
kube-node-lease        Active   3d23h
kube-public            Active   3d23h
kube-system            Active   3d23h
kubernetes-dashboard   Active   3d23h
in ~
>
```

```
kubectl get ns
```

ns is shortcut of namespaces.
let's get the pods list

```
kube-system           Active   3d23h
kubernetes-dashboard   Active   3d23h
in ~
> kubectl get po
NAME                                  READY   STATUS    RESTARTS   AGE
db-6789fcc76c-hvrs6                   1/1     Running   1          47h
myapp-deployment-v1-754d67d968-47rg9   1/1     Running   2          3d23h
myapp-deployment-v1-754d67d968-ctscp   1/1     Running   2          3d23h
myapp-deployment-v1-754d67d968-f9mb9   1/1     Running   2          3d23h
myapp-deployment-v1-754d67d968-fb9tb   1/1     Running   2          3d23h
myapp-deployment-v1-754d67d968-gvqw5   1/1     Running   2          3d23h
myapp-deployment-v1-754d67d968-v6k7s   1/1     Running   2          3d23h
myapp-deployment-v2-55fb8ccd95-5ch6x   1/1     Running   2          3d23h
myapp-deployment-v2-55fb8ccd95-5wxw8   1/1     Running   2          3d23h
myapp-deployment-v2-55fb8ccd95-6q4qq   1/1     Running   2          3d23h
myapp-deployment-v2-55fb8ccd95-lhhgk   1/1     Running   2          3d23h
myapp-deployment-v2-55fb8ccd95-s8zcl   1/1     Running   2          3d23h
myapp-deployment-v2-55fb8ccd95-tmzn8   1/1     Running   2          3d23h
redis-554668f9bf-4b6nx                1/1     Running   1          47h
result-79bf6bc748-znvw9               1/1     Running   2          47h
vote-7478984bfb-6r6w2                 1/1     Running   1          47h
worker-dd46d7584-74n8s                1/1     Running   3          47h
in ~
>
```

```
kubectl get po
```

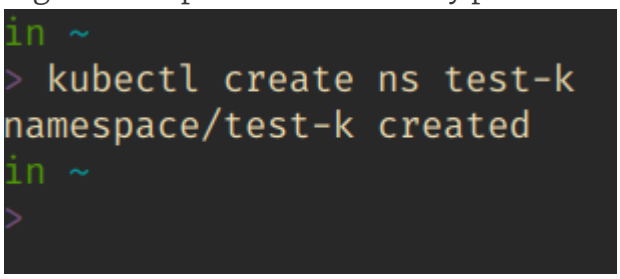
po is shortcut of pods
to get the pods under default namespace

```
in ~
> kubectl get po -n default
NAME                                  READY   STATUS    RESTARTS   AGE
db-6789fcc76c-hvrs6                   1/1     Running   1          47h
myapp-deployment-v1-754d67d968-47rg9   1/1     Running   2          3d23h
myapp-deployment-v1-754d67d968-ctscp   1/1     Running   2          3d23h
myapp-deployment-v1-754d67d968-f9mb9   1/1     Running   2          3d23h
myapp-deployment-v1-754d67d968-fb9tb   1/1     Running   2          3d23h
myapp-deployment-v1-754d67d968-gvqw5   1/1     Running   2          3d23h
myapp-deployment-v1-754d67d968-v6k7s   1/1     Running   2          3d23h
myapp-deployment-v2-55fb8ccd95-5ch6x   1/1     Running   2          3d23h
myapp-deployment-v2-55fb8ccd95-5wxw8   1/1     Running   2          3d23h
myapp-deployment-v2-55fb8ccd95-6q4qq   1/1     Running   2          3d23h
myapp-deployment-v2-55fb8ccd95-lhhgk   1/1     Running   2          3d23h
myapp-deployment-v2-55fb8ccd95-s8zcl   1/1     Running   2          3d23h
myapp-deployment-v2-55fb8ccd95-tmzn8   1/1     Running   2          3d23h
redis-554668f9bf-4b6nx                1/1     Running   1          47h
result-79bf6bc748-znvw9               1/1     Running   2          47h
vote-7478984bfb-6r6w2                 1/1     Running   1          47h
worker-dd46d7584-74n8s                1/1     Running   3          47h
in ~
>
```

```
kubectl get po -n default
```

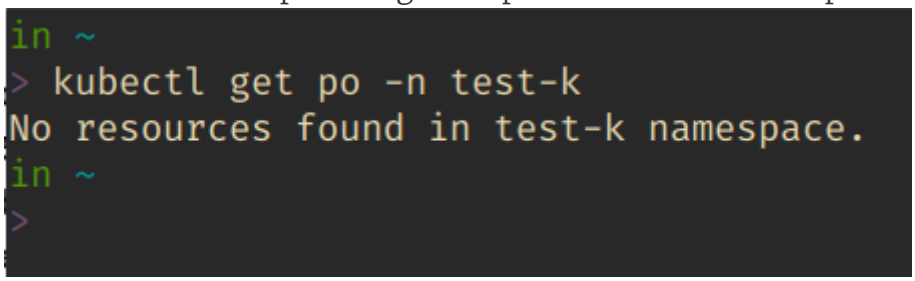
-n is shortcut of --namespace.

it get all the pods because all my pods are in namespace.




```
kubectl create ns test-k
```

test-k is the namespace if i get the pods under this namespace




```
kubectl get po -n test-k
```

it's empty. That's is the use of it , now I can have sub clusters inside a cluster.
also same as old way we can separate pods created using a yml file

```
kubectl create -f ex.yml -n tesk-k
```

or we can specify namespace inside the yml file himself.