Kubernetes objects

* Pod consist of one or more container & it does tell the specification that how does the containers should work

~ Kubectl create -f sample-pod.yaml
(-f → File, cluster →)

~ Kubectl get pods

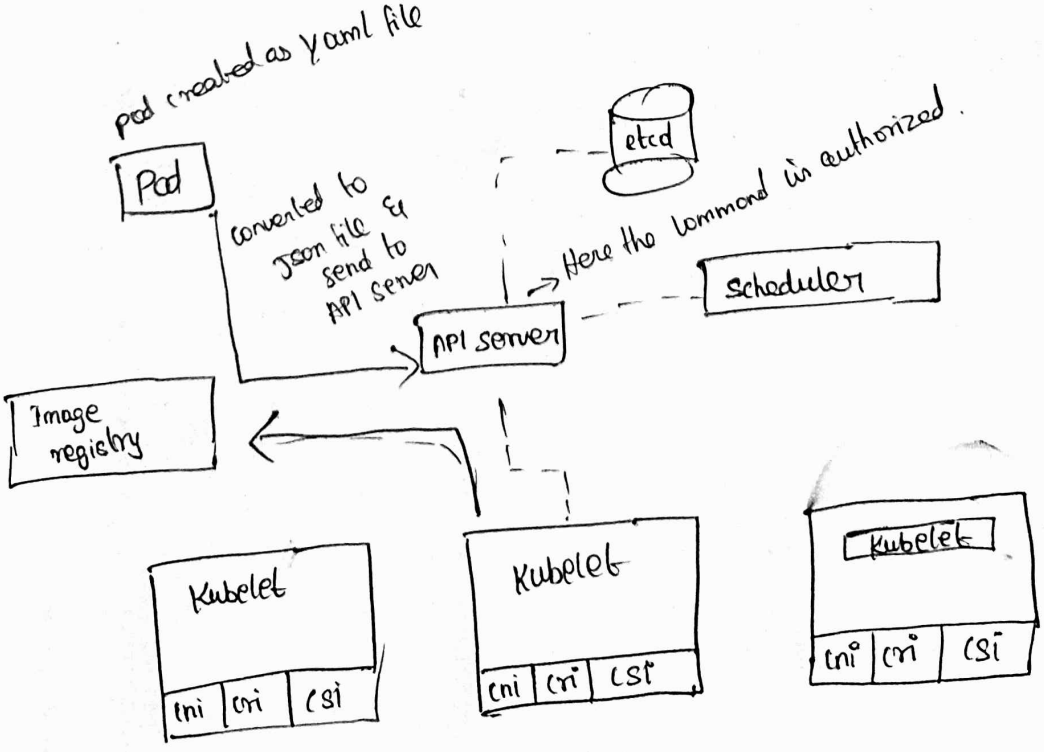
NAME	READY	STATUS	RESTARTS	AGE
Sample-pod	1/1	Running	0	5s.

Delete the pod

~ Kubectl delete pod demo.

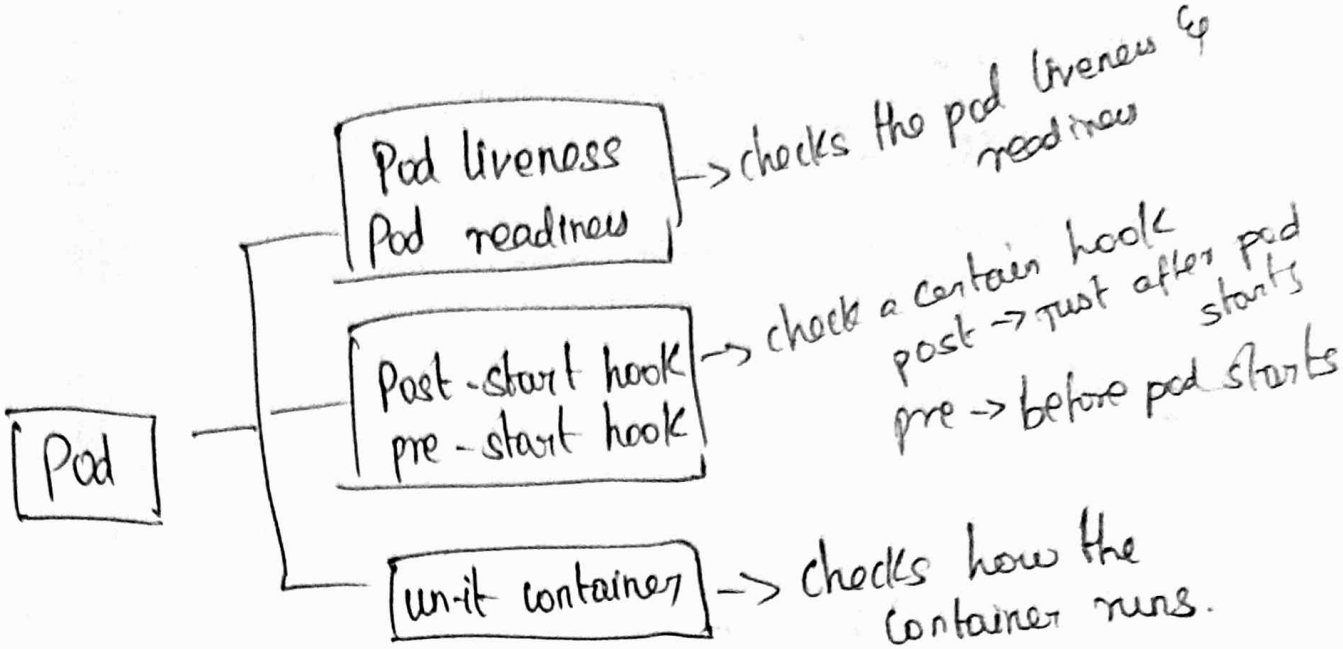
pod "demo" deleted.

Pod lifecycle



* scheduler creates a node in the cluster

for the pods.



Init containers

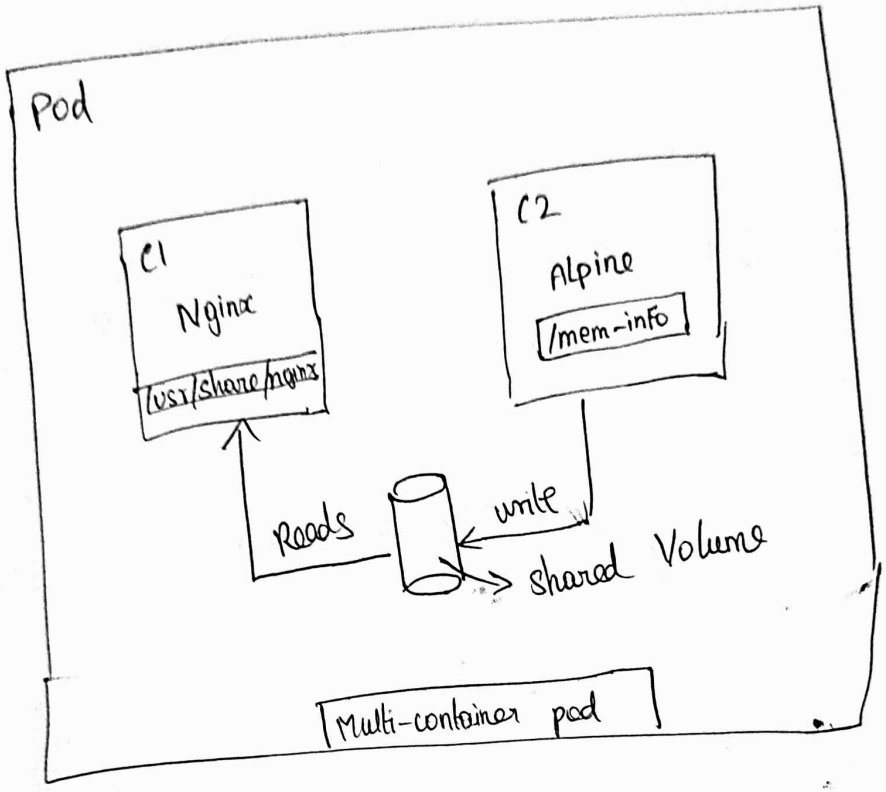
* Init container run before the main container starts
* Init container can delay the start of the main container for some test cases need to be meet.

curl -> command used to transfer data from one server to another

cat -> command print the content of the file

Multi-container pod

Running one or more containers inside the same pod. It acts as a side car for which the main container is running it will help the main container providing note data and other stuffs.



name : shared-data

emptyDir: { } → emptydirectory is created & it get emptied when pod ~~get~~ ~~dies~~. dies.

Container probes demo

Liveness and Readiness probes are used to control the health of an application running inside pod's containers.

Managing resource for containers

Resource → These are the gauranted resource that a container can get.

Limits → The upper bound to which the container can not go.

Deployment

- Kubectl create deployment demo --image=nginx --replicas=3 --port 80.

Nginx → open software which helps in web server

StateFul set

* It is used to store the state of the application which cannot be done by deployment.