



# KUBERNETES

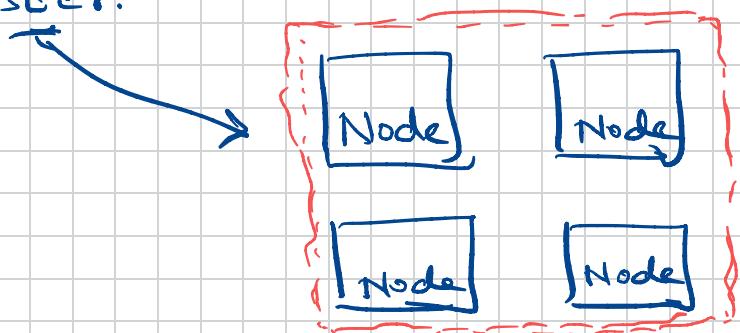
K8S

A container orchestration technology

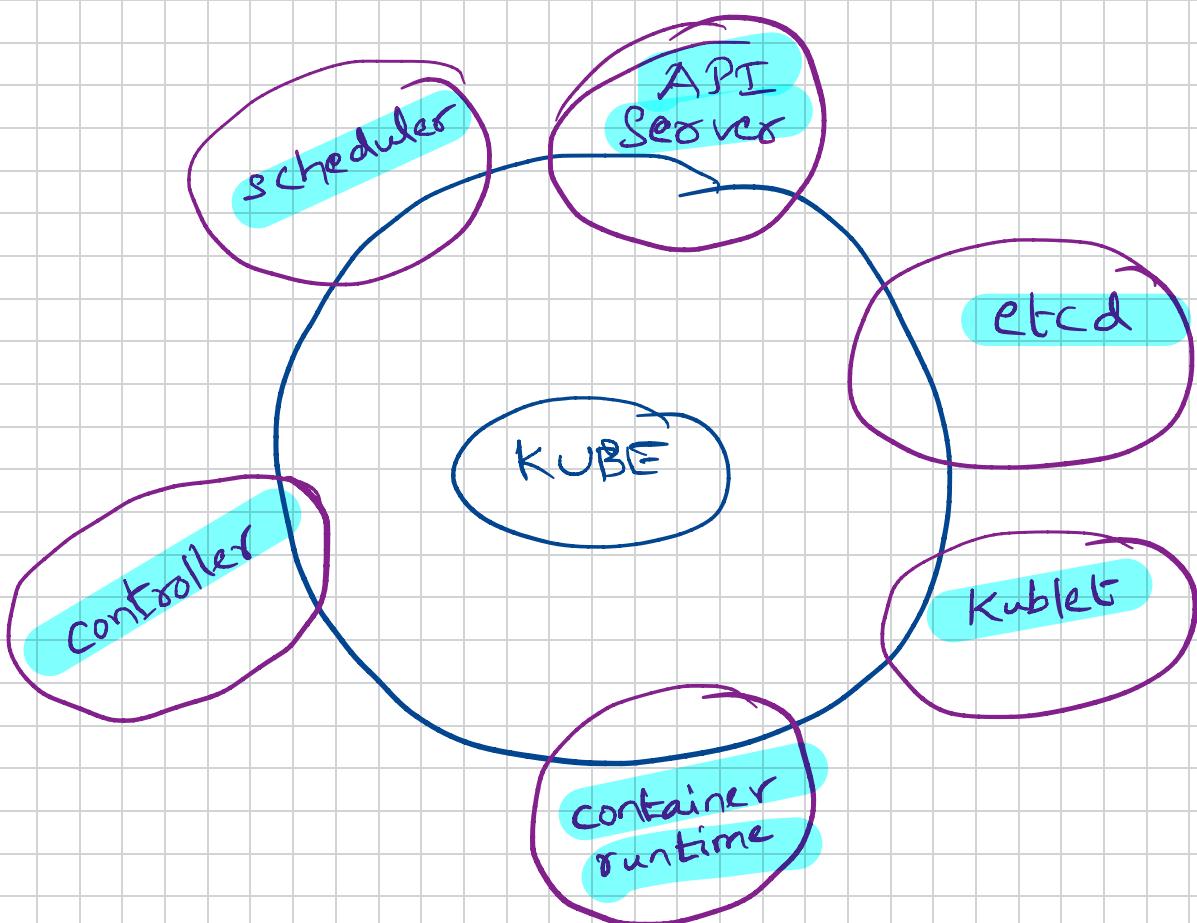


Thousands of containers in a cluster.

Command line interface  
kubectl



## Kubernetes Components



\$ kubectl get nodes

\$ kubectl get nodes -o wide → node wide  
OS details etc

Different ways to install Kubernetes in local system

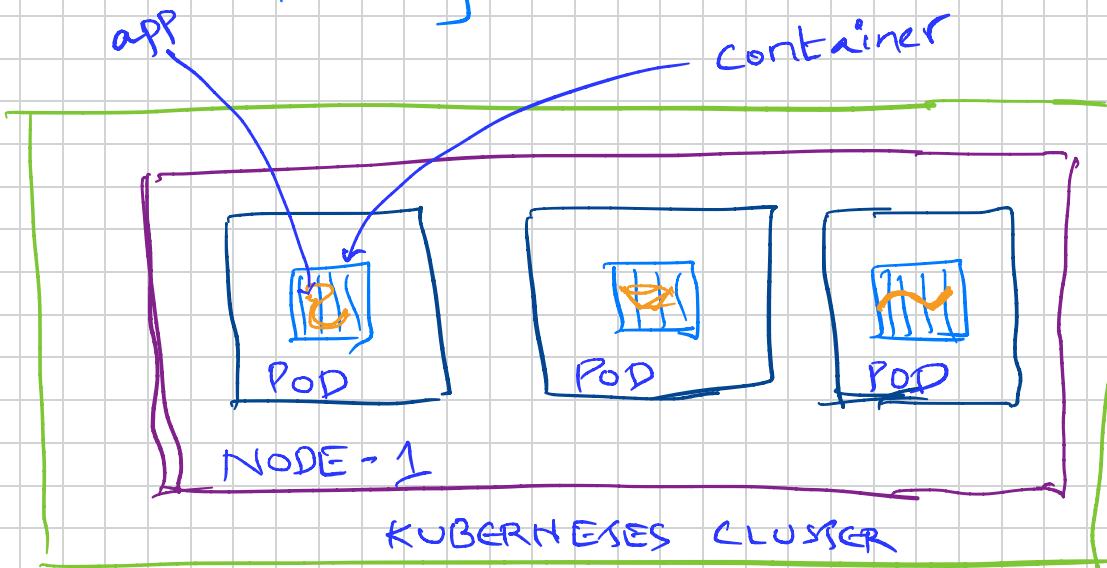
- docker desktop
- minikube
- kubeadm

### PODS

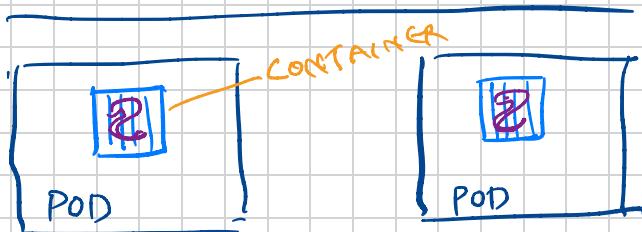
smallest and basic unit in k8s

pod → container

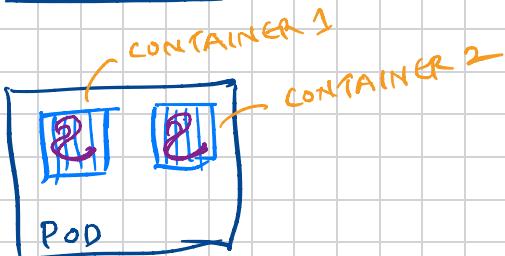
one-one relationship with your containers  
running the application



## To scale your application

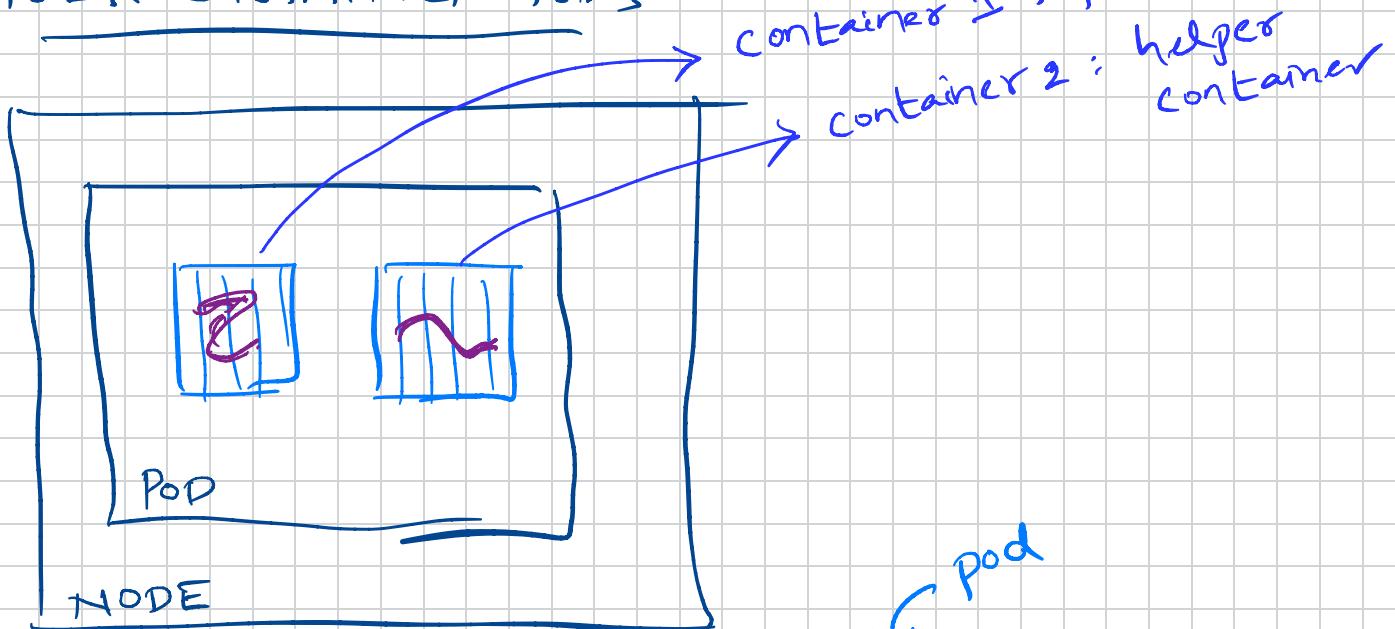


← Add another pod



← Add another container within a pod

## MULTI CONTAINER PODS



\$ kubectl run nginx --image=nginx

\$ kubectl get pods

\$ kubectl describe pod nginx

\$ kubectl get pods -o wide

get info of the node where pod is running

# YAML

XML  
JSON  
YAML

} all used to represent data

## KEY-VALUE PAIR

space mandatory

Fruit: Apple

Animal: Lion

Liquid: Water

Vegetable: Carrot

## ARRAY / LISTS

Fruits:

- Orange
- Apple
- Melon

Vegetables:

- Carrot
- Tomato
- Brinjal

## DICTIONARY / MAP

space      Banana:      space



Calories: 105  
 Fat: 0.4g  
 Carbs: 27g

Grapes:

Fat: 0.3g  
 Carbs: 16g  
 Calories: 62

# YAML - Advanced

Fruits:

- Banana:

Calories: 105  
 Fat: 0.4g  
 Carbs: 27g

- Grape:

Calories: 62  
 Fat: 0.3g  
 Carbs: 16g

Banana:

Calories: 105

Fat: 0.4g

Carbs: 27g

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Banana:

Calories: 105

Carbs: 27g

Fat: 0.4g

Fruits:

- Apple
- Orange
- Melon

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Fruits:

- Apple
- Melon
- Orange

Dictionary — Unordered

List — ordered