# kubectl Kubernetes CLI

## CONCEPTS

> Check the context and namespace before changing anything: the same command hits whichever cluster is current.

## CONTEXT

`kubectl config get-contexts`
List contexts

`kubectl config current-context`
Show active context

`kubectl config use-context <ctx>`
Switch context

`kubectl config set-context --current --namespace=<ns>`
Set default namespace

`kubectl explain <resource>.spec`
Show field docs

## CREATE & APPLY

`kubectl apply -f <file>`
Create or update from file

`kubectl create deployment <name> --image=<img>`
New deployment

`kubectl run <name> --image=<img>`
Start a single pod

`kubectl run <name> --image=<img> --dry-run=client -o yaml`
Generate YAML only

## INSPECT

`kubectl get pods`
List pods

`kubectl get pods -o wide`
Add node and IP

`kubectl get pods -n <ns>`
List in a namespace

`kubectl get <type> <name> -o yaml`
Full object as YAML

## INSPECT (cont.)

`kubectl describe <type> <name>`
Details and recent events

`kubectl get pods -l <key>=<value>`
Filter by label

`kubectl get events --sort-by=.metadata.creationTimestamp`
Events by time

## PODS & DEBUG

`kubectl logs <pod>`
Show pod logs

`kubectl logs -f <pod>`
Follow logs

`kubectl logs <pod> -c <container>`
Logs of one container

`kubectl logs <pod> --previous`
Logs of crashed container

`kubectl exec -it <pod> -- sh`
Interactive shell

`kubectl port-forward <pod> <local>:<remote>`
Forward a local port

## UPDATE & ROLLOUT

`kubectl set image deployment/<name> <container>=<img>`
Change an image

`kubectl rollout undo deployment/<name>`
Roll back

`kubectl scale deployment/<name> --replicas=<n>`
Set replica count

## DELETE

`kubectl delete -f <file>`
Delete objects from file

`kubectl delete pod <pod>`
Delete a pod