Kubectl commands

📦 VIEWING & LISTING RESOURCES

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* kubectl get pods - List all pods in the current namespace.
* kubectl get pods -A - List all pods in all namespaces.
* kubectl get deployments - List deployments in the current namespace.
* kubectl get rs - List ReplicaSets.
* kubectl get svc - List Services.
* kubectl get nodes - List all nodes in the cluster.
* kubectl get all - List all basic resources in the current namespace.

🔍 DESCRIBE & INSPECT

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* kubectl describe pod <POD\_NAME>
* kubectl describe deployment <DEPLOYMENT\_NAME>
* kubectl describe rs <ReplicaSet\_NAME>

✂ DELETE

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* kubectl delete pod <POD\_NAME>
* kubectl delete rs <ReplicaSet\_NAME>
* kubectl delete deployment < DEPLOYMENT\_NAME >
* kubectl delete all –all 🡪 Delete all resources in the namespace.
* kubectl delete -f file.yaml - Delete resources defined in a manifest.

📂 CREATE & APPLY

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* kubectl create -f file.yaml 🡪 (file can be Pod, RS, Deployment, Service)
* kubectl apply -f file.yaml - Apply changes (create/update) from a manifest
* kubectl apply -k ./kustomize/ - Apply resources using Kustomize.
* kubectl replace -f <>.yml
* kubectl scale - -replicas=6 -f replicaset-definition.yml

🚀 DEPLOYMENTS & ROLLOUTS

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kubectl rollout status deployment/<DEPLOYMENT>

kubectl rollout restart deployment/<DEPLOYMENT>

kubectl rollout history deployment/<DEPLOYMENT>

kubectl rollout undo deployment/<DEPLOYMENT>

🧭 BASIC KUBECTL SETUP

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kubectl version

- Show client, Kustomiz server version.

kubectl config view

- View kubeconfig file details.

kubectl config get-contexts

- List all contexts.

kubectl config current-context

- Show current context.

kubectl config use-context CONTEXT\_NAME

- Switch to a specific context.

🐞 DEBUGGING & LOGS

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kubectl logs <POD>

kubectl logs <POD> -c <CONTAINER>

kubectl exec -it <POD> -- <COMMAND>

kubectl get events --sort-by='.lastTimestamp'

kubectl top pod

kubectl top node

🔁 SERVICES & NETWORKING

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kubectl get svc

kubectl expose deployment nginx-deployment --type=LoadBalancer --port=80

kubectl port-forward svc/my-service 8080:80

kubectl run debug --rm -it --image=alpine sh

📄 CONFIGMAPS & SECRETS

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kubectl get configmap

kubectl create configmap my-config --from-literal=key1=value1

kubectl get secret

kubectl create secret generic my-secret --from-literal=password=suP3rSecret

⛓ NAMESPACES

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kubectl get ns

kubectl create namespace staging

kubectl delete namespace staging

kubectl config set-context --current --namespace=staging

🛠 EDIT & PATCH

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kubectl edit deployment nginx-deployment

kubectl patch deployment nginx-deployment -p '{"spec":{"replicas":5}}'

📤 OUTPUT FORMATS

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kubectl get deployment nginx-deployment -o yaml

kubectl get pod mypod -o json

kubectl get svc -o wide

📋 LABELS & ANNOTATIONS

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kubectl label pod mypod env=prod

kubectl annotate svc mysvc owner=team-a

kubectl get pods --show-labels

✅ ADVANCED COMMANDS

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kubectl rollout pause deployment/nginx-deployment

kubectl rollout resume deployment/nginx-deployment

kubectl drain node-name --ignore-daemonsets

kubectl cordon node-name

kubectl taint nodes node1 key=value:NoSchedule

kubectl cp ./local.txt mypod:/root/remote.txt

kubectl scale deployment/nginx --replicas=10

kubectl auth can-i create pods

kubectl api-resources

kubectl api-versions

kubectl explain deployment.spec.template.spec.containers