

# **Detailed Kubernetes Commands from Basic to Advance**

**[Auth. : Shaikh Ibrahim]  
[ [linkedin.com/in/shaikh-ibrahim07](https://www.linkedin.com/in/shaikh-ibrahim07) ]  
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# Complete Kubernetes command cheat sheet with one-line explanations for each command:

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## Cluster & Node Management

kubectl version	# Show client and server Kubernetes version
kubectl cluster-info	# Display cluster information
kubectl get nodes	# List all nodes in the cluster
kubectl describe node <node>	# Show detailed info about a specific node
kubectl cordon <node>	# Mark node as unschedulable (no new pods)
kubectl uncordon <node>	# Make node schedulable again
kubectl drain <node>	# Safely evict all pods from node

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## Pod Management

kubectl get pods	# List all pods in current namespace
kubectl get pods -A	# List pods in all namespaces
kubectl describe pod <pod>	# Detailed info about a specific pod
kubectl logs <pod>	# Show logs of a pod
kubectl logs -f <pod>	# Stream pod logs live
kubectl exec -it <pod> -- bash	# Access shell inside running pod
kubectl delete pod <pod>	# Delete a specific pod
kubectl run nginx --image=nginx	# Create a pod running nginx

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## Deployment Management

kubectl get deployments	# List all deployments
kubectl describe deployment <deploy>	# Detailed deployment info
kubectl create deployment nginx --image=nginx	# Create new deployment
kubectl scale deployment nginx --replicas=3	# Scale deployment
kubectl edit deployment nginx	# Edit deployment configuration
kubectl delete deployment nginx	# Delete deployment
kubectl rollout status deployment/nginx	# Check rollout status
kubectl rollout undo deployment/nginx	# Rollback last deployment

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## ReplicaSet & ReplicationController

kubectl get rs	# List ReplicaSets
kubectl describe rs <rs>	# Detailed info about ReplicaSet
kubectl delete rs <rs>	# Delete ReplicaSet

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## Service Management

kubectl get svc	# List all services
kubectl describe svc <service>	# Detailed info about a service
kubectl expose deployment nginx --port=80 --type=NodePort	# Expose deployment
kubectl delete svc <service>	# Delete a service

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## Namespace Management

kubectl get ns	# List all namespaces
kubectl create ns dev	# Create a new namespace
kubectl delete ns dev	# Delete namespace
kubectl config set-context --current --namespace=dev	# Switch namespace

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## ConfigMap & Secrets

kubectl create configmap my-config --from-literal=key=value	# Create ConfigMap
kubectl get configmaps	# List ConfigMaps
kubectl describe configmap my-config	# Show ConfigMap details
kubectl delete configmap my-config	# Delete ConfigMap
kubectl create secret generic my-secret --from-literal=password=12345	# Create Secret
kubectl get secrets	# List secrets
kubectl describe secret my-secret	# Show secret details
kubectl delete secret my-secret	# Delete secret

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## YAML File Commands

kubectl apply -f file.yaml	# Create or update resource from YAML
kubectl create -f file.yaml	# Create resource from YAML
kubectl delete -f file.yaml	# Delete resource from YAML
kubectl get -f file.yaml	# Get resource defined in YAML
kubectl diff -f file.yaml	# Show differences before applying

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## Resource Information

kubectl api-resources	# List all supported resource types
kubectl get all	# List all resources in namespace
kubectl explain pods.spec	# Show documentation for pod fields

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## Kubectl Context & Configuration

kubectl config view	# View kubeconfig details
kubectl config get-contexts	# List available contexts
kubectl config use-context <context>	# Switch cluster context
kubectl config current-context	# Show current context

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## Debugging & Troubleshooting

kubectl describe <resource> <name>	# Describe any resource
kubectl logs <pod> -c <container>	# Get container logs in multi-container pod
kubectl exec -it <pod> -- sh	# Open shell in pod
kubectl top pods	# Show pod resource usage
kubectl top nodes	# Show node resource usage
kubectl get events --sort-by=.metadata.creationTimestamp	# Show latest events

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## Cleanup & Maintenance

kubectl delete all --all	# Delete all resources in namespace
kubectl delete pod --all -n dev	# Delete all pods in a namespace
kubectl drain <node> --force --ignore-daemonsets	# Force drain node

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## Advanced (Admin Level)

kubectl taint nodes key=value:NoSchedule	# Add taint to node
kubectl label node <node> env=prod	# Add label to node
kubectl get pods --show-labels	# Show pod labels
kubectl get pods -l app=nginx	# Filter by label
kubectl annotate pod <pod> description='test pod'	# Add annotation

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