

Kubernetes Handbook for Daily Ops

Basic & Advanced commands

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Basic & Advanced commands

Basic Kubernetes Commands

#	Command	Description
1	kubectl version	Check the client and server Kubernetes versions.
2	kubectl cluster-info	Display cluster endpoint information.
3	kubectl get nodes	List all the nodes in the cluster.
4	kubectl get pods	List all pods in the current namespace.
5	kubectl get all	Show all resources (pods, services, etc.) in the current namespace.
6	kubectl describe pod <pod-name>	Detailed info about a specific pod.
7	kubectl get namespaces	List all namespaces in the cluster.
8	kubectl config view	View the current kubeconfig settings.
9	kubectl config use-context <context-name>	Switch to a specific context (cluster/environment).
10	kubectl get services	List all services in the current namespace.

Basic Kubernetes Commands (Set 2 of 3)

#	Command	Description
11	<code>kubectl get pods --all-namespaces</code>	List pods across all namespaces.
12	<code>kubectl create namespace <name></code>	Create a new namespace.
13	<code>kubectl delete pod <pod-name></code>	Delete a specific pod.
14	<code>kubectl logs <pod-name></code>	View logs for a container in a pod.
15	<code>kubectl exec -it <pod-name> -- /bin/sh</code>	Open a shell inside a running pod.
16	<code>kubectl get deployments</code>	List all deployments in the current namespace.
17	<code>kubectl describe deployment <deployment-name></code>	Detailed info about a deployment.
18	<code>kubectl rollout status deployment/<deployment-name></code>	Check rollout status of a deployment.
19	<code>kubectl scale deployment <deployment-name> --replicas=3</code>	Scale a deployment to a specific number of pods.
20	<code>kubectl get events</code>	View recent cluster events (like pod restarts, failures).

Basic Kubernetes Commands

#	Command	Description
21	<code>kubectl apply -f <file.yaml></code>	Create or update resources defined in a YAML file.
22	<code>kubectl delete -f <file.yaml></code>	Delete resources defined in a YAML file.
23	<code>kubectl edit deployment <deployment-name></code>	Edit a deployment live using the default editor.
24	<code>kubectl port-forward <pod-name> 8080:80</code>	Forward a local port to a port on the pod.
25	<code>kubectl get pvc</code>	List PersistentVolumeClaims in the current namespace.
26	<code>kubectl get pv</code>	List PersistentVolumes across the cluster.
27	<code>kubectl top pods</code>	Show resource usage (CPU/Memory) by pods (metrics-server required).
28	<code>kubectl top nodes</code>	Show resource usage by nodes (metrics-server required).
29	<code>kubectl rollout restart deployment <deployment-name></code>	Restart all pods in a deployment.
30	<code>kubectl get ingress</code>	List ingress resources in the current namespace.

Advanced Kubernetes Commands

#	Command	Description
31	<code>kubectl explain <resource></code>	View detailed documentation for any resource (e.g., <code>kubectl explain pod</code>).
32	<code>kubectl get pod <pod-name> -o yaml</code>	Output pod definition in YAML (good for debugging or reuse).
33	<code>kubectl get deployment <deployment-name> -o jsonpath='{.status.availableReplicas}'</code>	Extract specific values using JSONPath.
34	<code>kubectl get events --sort-by=.metadata.creationTimestamp</code>	Sort events by timestamp to see the latest first.
35	<code>kubectl taint nodes <node-name> key=value:NoSchedule</code>	Prevent pods from scheduling on a node unless tolerated.
36	<code>kubectl cordon <node-name></code>	Mark a node as unschedulable.
37	<code>kubectl drain <node-name> --ignore-daemonsets</code>	Evict all pods from a node safely (for maintenance).
38	<code>kubectl label pods <pod-name> app=demo</code>	Add or update labels on a pod.
39	<code>kubectl annotate pod <pod-name> description='App Demo Pod'</code>	Add or change annotations on a pod.
40	<code>kubectl auth can-i create deployment</code>	Check if the current user has permission to perform an action.

Advanced Kubernetes Commands

#	Command	Description
41	<code>kubectl patch deployment <deployment-name> -p '{"spec": {"replicas":5}}'</code>	Patch a deployment to update replicas without a full apply.
42	<code>kubectl rollout undo deployment <deployment-name></code>	Roll back a deployment to the previous version.
43	<code>kubectl logs <pod-name> -c <container-name></code>	Get logs from a specific container in a multi-container pod.
44	<code>kubectl get pods -l app=<label></code>	Get pods filtered by label.
45	<code>kubectl delete pod <pod-name> -- grace-period=0 --force</code>	Force delete a stuck or unresponsive pod.
46	<code>kubectl apply -k <directory></code>	Apply a kustomization directory (Kustomize support).
47	<code>kubectl get crd</code>	List all Custom Resource Definitions installed in the cluster.
48	<code>kubectl get <crd-name></code>	View instances of a specific custom resource (e.g., <code>kubectl get prometheuses</code>).
49	<code>kubectl port-forward svc/<service-name> 8080:80</code>	Port forward from a service instead of a pod.
50	<code>kubectl api-resources</code>	List all available resource types supported by the API server.

Advanced Kubernetes Commands

#	Command	Description
51	<code>kubectl debug pod/<pod-name> --image=busybox --target=<container-name></code>	Debug a running pod by attaching a temporary container.
52	<code>kubectl create secret generic <secret-name> --from-literal=username=admin</code>	Create a secret with a literal key-value pair.
53	<code>kubectl port-forward deployment/<deployment-name> 8080:80</code>	Port forward from a deployment (via matching pod).
54	<code>kubectl apply -f <file.yaml> --server-side</code>	Perform server-side apply to manage field ownership.
55	<code>kubectl diff -f <file.yaml></code>	Preview changes that kubectl apply would make.
56	<code>`kubectl get pod <pod-name> -o json jq '.status.containerStatuses[]'</code>	
57	<code>kubectl wait --for=condition=available deployment/<deployment-name> --timeout=60s</code>	Wait for a deployment to be ready.
58	<code>kubectl get --raw /healthz</code>	Perform a raw HTTP GET against the API server health endpoint.
59	<code>kubectl get endpoints</code>	List the endpoints tied to services.
60	<code>kubectl create job <job-name> --image=<image-name> --<command></code>	Run a one-time Kubernetes Job directly from the CLI.