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# Kubernetes - Set up and manage context/config

# 1. Set a Cluster in the kubeconfig file
kubectl config set-cluster <cluster-name> --server=<api-server-url> --
certificate-authority=<path-to-ca-cert>

# 2. Set a User in the kubeconfig file
kubectl config set-credentials <user-name> --client-certificate=<path-to-client-
cert> --client-key=<path-to-client-key>

# 3. Set a Context in the kubeconfig file
kubectl config set-context <context-name> --cluster=<cluster-name> --user=<user-
name> --namespace=<namespace>

# 4. Switch to a Context
kubectl config use-context <context-name>

# 5. View the Current Context
kubectl config current-context

# 6. List All Contexts
kubectl config get-contexts

# 7. Delete a Context
kubectl config delete-context <context-name>

# 8. View the kubeconfig file
kubectl config view

# 9. Set the Namespace in the Current Context
kubectl config set-context --current --namespace=<namespace-name>

# Kubernetes - Manage Resources

# 10. Create Resources from a YAML file
kubectl apply -f <resource-file>.yaml

# 11. Get All Resources in the current namespace
kubectl get all

# 12. Get a specific resource
kubectl get <resource-type> <resource-name>

# 13. Describe a resource
kubectl describe <resource-type> <resource-name>

# 14. Delete a resource
kubectl delete <resource-type> <resource-name>

# 15. View Logs of a Pod
kubectl logs <pod-name>

# 16. Execute command in a Pod
kubectl exec -it <pod-name> -- <command>

# 17. Use Go templates to fetch information (e.g., pod name, status)
kubectl get pods -o go-template='{{range .items}}{{.metadata.name}}{{"\n"}}
{{end}}'
kubectl get pod <pod-name> -o go-template='{{.status.phase}}'

# Kubernetes - Manage Pods

# 18. Create a Pod
kubectl apply -f pod.yaml
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# 19. View Pods
kubectl get pods

# 20. Delete a Pod
kubectl delete pod <pod-name>

# 21. Describe a Pod
kubectl describe pod <pod-name>

# 22. Get pod's status
kubectl get pod <pod-name> -o go-template='{{.status.phase}}'

# Kubernetes - Manage Deployments

# 23. Create a Deployment
kubectl apply -f deployment.yaml

# 24. View Deployments
kubectl get deployments

# 25. Update a Deployment
kubectl apply -f updated-deployment.yaml

# 26. Scale a Deployment
kubectl scale deployment <deployment-name> --replicas=<replica-count>

# 27. Rollback a Deployment
kubectl rollout undo deployment/<deployment-name>

# 28. Get Deployment Details
kubectl describe deployment <deployment-name>

# 29. Delete a Deployment
kubectl delete deployment <deployment-name>

# Kubernetes - Manage Services

# 30. Create a Service
kubectl apply -f service.yaml

# 31. View Services
kubectl get services

# 32. Describe a Service
kubectl describe service <service-name>

# 33. Delete a Service
kubectl delete service <service-name>

# Kubernetes - Manage ConfigMaps

# 34. Create a ConfigMap from a file
kubectl create configmap <configmap-name> --from-file=<file-name>

# 35. Create a ConfigMap from literals
kubectl create configmap <configmap-name> --from-literal=<key>=<value>

# 36. Get ConfigMap
kubectl get configmap <configmap-name>

# 37. Describe a ConfigMap
kubectl describe configmap <configmap-name>
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# 38. Delete a ConfigMap
kubectl delete configmap <configmap-name>

# Kubernetes - Manage Secrets

# 39. Create a Secret from a file
kubectl create secret generic <secret-name> --from-file=<file-name>

# 40. Create a Secret from literals
kubectl create secret generic <secret-name> --from-literal=<key>=<value>

# 41. Get Secrets
kubectl get secrets

# 42. Describe a Secret
kubectl describe secret <secret-name>

# 43. Delete a Secret
kubectl delete secret <secret-name>

# Kubernetes - Manage Volumes

# 44. Create a PersistentVolume (PV)
kubectl apply -f pv.yaml

# 45. Create a PersistentVolumeClaim (PVC)
kubectl apply -f pvc.yaml

# 46. View Persistent Volumes
kubectl get pv

# 47. View PersistentVolumeClaims
kubectl get pvc

# 48. Delete a PersistentVolume
kubectl delete pv <pv-name>

# 49. Delete a PersistentVolumeClaim
kubectl delete pvc <pvc-name>

# Kubernetes - Manage Service Accounts

# 50. Create a Service Account
kubectl apply -f service-account.yaml

# 51. List Service Accounts
kubectl get serviceaccounts

# 52. Describe a Service Account
kubectl describe serviceaccount <service-account-name>

# 53. Delete a Service Account
kubectl delete serviceaccount <service-account-name>

# Kubernetes - Manage Security Contexts

# 54. Create a Pod with a Security Context (Pod level)
kubectl apply -f pod-with-security-context.yaml

# 55. Create a Pod with a container-level Security Context
kubectl apply -f pod-with-container-security-context.yaml

# 56. Describe a Pod with a Security Context
kubectl describe pod <pod-name>
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# 57. Edit a Pod's Security Context
kubectl edit pod <pod-name>

# Helm - Chart Commands

# 58. Install a Helm chart
helm install <release-name> <chart-name>

# 59. Upgrade a Helm release
helm upgrade <release-name> <chart-name>

# 60. Uninstall a Helm release
helm uninstall <release-name>

# 61. List installed Helm releases
helm list

# 62. Create a new Helm chart
helm create <chart-name>

# 63. Lint a Helm chart
helm lint <chart-directory>

# 64. Install a Helm chart with custom values
helm install <release-name> <chart-name> --set key=value

# 65. Upgrade a Helm release with custom values
helm upgrade <release-name> <chart-name> --set key=value
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