Kubernetes Practical Commands

1. Basic Cluster Info

```
kubectl version
kubectl cluster-info
kubectl get nodes
kubectl describe node <node-name>
```

2. Working with Namespaces

```
kubectl get namespaces
kubectl create namespace dev
kubectl delete namespace dev
kubectl get pods -n kube-system
```

3. Pods Management

```
kubectl run nginx --image=nginx
kubectl get pods
kubectl describe pod <pod-name>
kubectl delete pod <pod-name>
kubectl logs <pod-name>
kubectl exec -it <pod-name> -- /bin/bash
```

4. Deployments

```
kubectl create deployment myapp --image=nginx
kubectl get deployments
kubectl scale deployment myapp --replicas=3
kubectl edit deployment myapp
kubectl rollout status deployment myapp
kubectl rollout undo deployment myapp
kubectl delete deployment myapp
```

5. Services

```
kubectl expose deployment myapp --type=NodePort --port=80
kubectl get services
kubectl describe service myapp
kubectl delete service myapp
```

6. YAML Manifest

```
kubectl apply -f deployment.yaml
kubectl delete -f deployment.yaml
kubectl create -f pod.yaml
```

Kubernetes Practical Commands

```
kubectl get -f deployment.yaml
kubectl diff -f deployment.yaml
```

7. ConfigMaps and Secrets

```
kubectl create configmap myconfig --from-literal=env=prod
kubectl get configmaps
kubectl describe configmap myconfig

kubectl create secret generic mysecret --from-literal=password=12345
kubectl get secrets
kubectl describe secret mysecret
```

8. ReplicaSets and StatefulSets

```
kubectl get rs
kubectl describe rs <rs-name>

kubectl get statefulset
kubectl delete statefulset <name>
```

9. DaemonSets & Jobs

```
kubectl get daemonsets
kubectl describe daemonset <name>

kubectl create job myjob --image=busybox -- sleep 10
kubectl get jobs
```

10. Troubleshooting Commands

```
kubectl get events
kubectl describe pod <pod-name>
kubectl logs <pod-name> --previous
```

11. Dry Run (for testing)

```
kubectl create deployment myapp --image=nginx --dry-run=client -o yaml > myapp.yaml
```

12. Port Forwarding & Proxy

```
kubectl port-forward pod/<pod-name> 8080:80
kubectl proxy
```

Kubernetes Practical Commands

13. Resource Utilization

```
kubectl top pod
kubectl top node
```

14. Labels and Selectors

```
kubectl label pod <pod-name> env=dev
kubectl get pods --selector env=dev
```

15. Taints and Tolerations

```
kubectl taint nodes <node-name> key=value:NoSchedule
kubectl describe node <node-name> | grep -i taint
```