Here are some **daily-use Kubernetes (k8s) commands** with real-time examples:

1. Get Cluster Information

```
kubectl cluster-info
```

- Displays the master and services information.

2. Check Nodes in the Cluster

```
kubectl get nodes
```

- Lists all nodes in the cluster.

```
kubectl describe node <node-name>
```

- Shows detailed information about a specific node.

3. List All Pods in All Namespaces

```
kubectl get pods --all-namespaces
```

- Useful for debugging cluster-wide issues.

4. Describe a Pod

```
kubectl describe pod <pod-name>
```

- Shows detailed info, including events and reasons for failures.

5. Check Pod Logs

```
kubectl logs <pod-name>
```

- Fetch logs from a running

container in a pod.

```
kubectl logs -f <pod-name>
```

- Stream logs in real-time (like tail -f).

```
kubectl logs <pod-name> -c <container-name>
```

- If a pod has multiple containers, fetch logs of a specific container.

6. Execute Commands Inside a Running Pod

```
kubectl exec -it <pod-name> -- /bin/sh
```

- Opens an interactive shell inside the container.

```
kubectl exec <pod-name> -- ls /app
```

- Run a single command inside a pod.

7. List Services in the Cluster

```
kubectl get svc
```

- Lists all services in the current namespace.

```
kubectl describe svc <service-name>
```

- Shows detailed information about a specific service.

8. Get Deployment Information

```
kubectl get deployments
```

- Lists all deployments.

```
kubectl describe deployment <deployment-name>
```

- Shows detailed deployment information.

```
kubectl get pods --selector=app=my-app
```

- Get pods belonging to a specific deployment.

9. Scale a Deployment

```
kubectl scale deployment <deployment-name> --replicas=5
```

- Increases/decreases the number of running pods.

10. Restart a Deployment

```
kubectl rollout restart deployment <deployment-name>
```

- Restarts all pods in a deployment.

11. Roll Back a Deployment

```
kubectl rollout undo deployment <deployment-name>
```

- Rolls back to the previous version.

```
kubectl rollout history deployment <deployment-name>
```

- Shows deployment history.

12. Check Events in a

Namespace

```
kubectl get events --sort-by=.metadata.creationTimestamp
```

- Shows recent events like pod crashes, node failures, etc.

13. Check Resource Usage (CPU & Memory)

```
kubectl top pods kubectl top nodes
```

- Requires metrics-server to be installed.

14. Port Forward a Pod to Local Machine

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

- Access a pod’s service on localhost:8080.

15. Create a ConfigMap from a File

```
kubectl create configmap my-config --from-file=config.json
```

- Stores application configs in Kubernetes.

16. Apply or Update a Manifest File

```
kubectl apply -f deployment.yaml
```

- Creates/updates resources in Kubernetes.

17. Delete a Resource

```
kubectl delete pod <pod-name>
kubectl delete deployment <deployment-name>
kubectl delete service <service-name>
kubectl delete namespace <namespace-name>
```

- Removes the specified resource.

18. Get All Resources in a Namespace

```
kubectl get all -n <namespace>
```

- Lists all resources (pods, services, deployments, etc.) in a namespace.

19. Drain a Node for Maintenance

```
kubectl drain <node-name> --ignore-daemonsets --delete-emptydir-data
```

- Moves all pods away from a node.

```
kubectl uncordon <node-name>
```

- Marks a node as schedulable again.

20. Get YAML Output of a Resource

```
kubectl get pod <pod-name> -o yaml kubectl get svc <service-name> -o yaml
```

- Fetches the YAML configuration of a resource.

These commands are used daily for debugging, monitoring, and managing Kubernetes clusters. Would you like me to add more advanced commands?