1. Get Cluster Info



• Displays information about the Kubernetes cluster.

2. List All Resources



• Lists all resources (pods, services, etc.) across all namespaces.

3. Get Pod Details

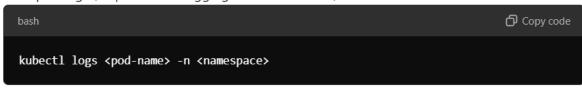
• List all pods in a specific namespace:



• Describe a pod to see events and configuration details:



• View pod logs (helpful for debugging crashes or issues):



• For multi-container pods, specify the container:

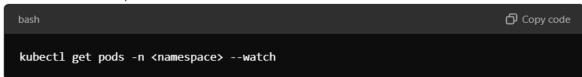
```
bash
kubectl logs <pod-name> -c <container-name> -n <namespace>
```

4. Checking Pod Status

Check the status of all pods in a namespace:



• Watch the status of pods in real-time:



5. Check Events



• Lists the recent events in a namespace, useful for identifying failures.

6. Get Node Details

• List all nodes in the cluster:



• Describe a specific node:



7. Debugging Pods

• If a pod is not starting, exec into the pod:

```
bash

kubectl exec -it <pod-name> -n <namespace> -- /bin/sh

Or for bash:

bash

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kubectl exec -it <pod-name> -n <namespace> -- /bin/bash
```

8. View Resource Utilization

· CPU and memory utilization of nodes:

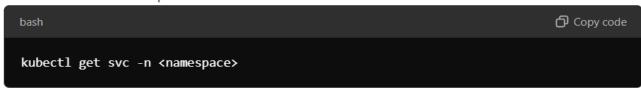


Resource utilization of pods:



9. Checking Service Connectivity

List services in a namespace:



Describe a specific service:



10. Checking DNS Resolution

• Test DNS from within a pod (using busybox):

11. Check ConfigMaps & Secrets

· List ConfigMaps in a namespace:

• View a specific ConfigMap:



List Secrets in a namespace:

```
bash

kubectl get secrets -n <namespace>
```

12. Check Persistent Volumes (PVs) and Persistent Volume Claims (PVCs)

List persistent volumes:



· List persistent volume claims in a namespace:

```
bash

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kubectl get pvc -n <namespace>
```

13. Check DaemonSet/Deployment/StatefulSet Details

· Check Deployment:

```
kubectl get deployment <deployment-name> -n <namespace>
kubectl describe deployment <deployment-name> -n <namespace>
```

· Check DaemonSet:

```
kubectl get daemonset -n <namespace>
kubectl describe daemonset <daemonset-name> -n <namespace>
```

· Check StatefulSet:

```
bash

kubectl get statefulset -n <namespace>
kubectl describe statefulset <statefulset-name> -n <namespace>
```

14. Debug Network Issues

· Check pod network connectivity:

```
bash

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kubectl exec <pod-name> -n <namespace> -- ping <service-ip>
```

15. Interactive Troubleshooting (Kubectl Debug)

· Create a debugging pod with troubleshooting tools:

```
bash

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kubectl debug <pod-name> -n <namespace> --image=busybox -- /bin/sh
```