

Minikube and Kubernetes Commands Guide

1. Start Minikube Cluster

`minikube start`

- Initializes a Minikube cluster on your local machine. This command sets up a Kubernetes environment.

2. View Kubernetes Namespaces

`kubectl get ns`

- Lists all available namespaces in the Kubernetes cluster.

3. View All Pods Across Namespaces

`kubectl get po -A`

- Shows the status of all pods in all namespaces.

4. View Ingress Resources

`kubectl get ingress`

- Lists the ingress resources deployed in the cluster. Ingress controllers manage external access to services within the cluster.

Pause and Resume Minikube Cluster (Without Impacting Applications)

- **Pause Kubernetes:**

`minikube pause`

- Pauses the Minikube cluster. This action will suspend the Kubernetes components without stopping deployed applications.

- **Resume Kubernetes:**

`minikube unpause`

- Resumes a paused Minikube cluster.

Halt and Delete Minikube Cluster

- **Stop the Cluster:**

`minikube stop`

- Halts the Minikube cluster, stopping all running services and resources.

- **Delete All Minikube Clusters:**

`minikube delete --all`

- Deletes all Minikube clusters from your local system.
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Deploying and Managing Resources in Kubernetes

1. **Deploy a YAML Configuration:**

`kubectl apply -f zamans-deployment.yaml`

- Applies the deployment configuration specified in `zamans-deployment.yaml`.

2. **Get Pods in the Current Namespace:**

`kubectl get pods`

- Lists all running pods in the default namespace.

3. **View Services in Kubernetes:**

`kubectl get services`

- Displays all services currently deployed in Kubernetes.

4. **Access a Service in Minikube:**

`minikube service zamans-service`

- Opens the service `zamans-service` in the default web browser.
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Logging, Managing, and Deleting Pods

1. **View Pod Logs:**

`kubectl logs zamans-container-67f5b885c5-h27dk`

- Shows logs from the specified pod `zamans-container-67f5b885c5-h27dk`.

2. **Delete a Pod:**

`kubectl delete pod zamans-container-67f5b885c5-h27dk`

- Deletes the specified pod. Kubernetes will automatically create a new pod to maintain the desired state.

Deleting Deployments and Services

1. View Deployments:

```
kubectl get deployments
```

2. Delete a Deployment:

```
kubectl delete deployments zamans-container
```

- Removes the specified deployment.

3. View Services Again:

```
kubectl get services
```

4. Delete a Service:

```
kubectl delete services zamans-service
```

- Deletes the specified service.

Access Pod Container Shell

```
kubectl exec -it zamans-container-67f5b885c5-jp7f2 -- /bin/sh
```

- Launches an interactive shell (/bin/sh) in the specified container within the pod.
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