**Namespace**

* A Kubernetes Namespace is a logical division or separation mechanism within a Kubernetes cluster.
* It helps organize and manage resources by providing a way to group related resources together. Namespaces can be used to isolate and allocate resources for different teams, projects, or environments (e.g., development, testing, and production).

Some key features and benefits of using Namespaces in Kubernetes include:

**1. Resource Isolation:** Namespaces allow you to segregate resources across different teams, projects, or environments. This ensures that resources used by one team or project do not interfere with others.

**2. Scalability:** With Namespaces, you can scale your cluster by creating multiple Namespaces within it. This allows you to manage and organize resources efficiently, even in large-scale deployments.

**3. Network Policies:** Namespaces can be used to apply network policies, which control the network traffic between pods within the same or different Namespaces. This helps improve security and manage network access between resources.

**4. Resource Quotas:** Namespaces can be used to set resource quotas, limiting the amount of CPU, memory, or storage that can be consumed by resources within a Namespace. This helps prevent resource contention and ensures fair usage among different teams or projects.

* To create a Namespace in Kubernetes, you can use the `k**ubectl create namespace`** command followed by the desired Namespace name.
* You can also delete a Namespace using `**kubectl delete namespace**` and list all Namespaces with `kubectl get namespaces`.