

## 01-namespace

Namespace What it is Namespace is a logical isolation boundary inside a cluster. It separates resources, policies, and quotas for teams or environments. When to use Multi-team clusters (team-a, team-b) Environment separation (dev, stage, prod) Applying ResourceQuota, LimitRange, and RBAC per boundary Key fields metadata.name: namespace name metadata.labels: grouping and policy selectors Common commands bash kubectl get ns kubectl create namespace payments kubectl label namespace payments owner=platform env=prod kubectl config set-context --current --namespace=payments kubectl get all -n payments kubectl delete namespace payments YAML example yaml apiVersion: v1 kind: Namespace metadata: name: payments labels: owner: platform env: prod Practical notes Most namespaced objects (Pods, Deployments, Services) must live in a namespace. Cluster-wide objects (Nodes, PVs, StorageClasses) are not namespaced. Namespace deletion is asynchronous and removes all namespaced objects in it.