AKS Namespace quota limitrange

**Resource quota:**

Resource quota provides contraints the restricts the resource consumption and creation on a namespace basis.It can limit the quatity of objects that can be created in a namespace by type,as well as the total amount of compute resources that may be consumed by resources in that namespace

**Compute resource quota:** Lmit the total sum of compute resources(CPU and MEMory) that can be requested in a given namespace

**Storage resource quota:** Limite the total sum of storage resources(storage and persistentvolumeclaims) that can the requested in a given namespaces

**object Count quota:** Limit the number of resources that can be created.Like persistent volumeclaim,services,secretes,pods and configmaps

**Step-01: Create Namespace manifest**

* **Important Note:** File name starts with 00- so that when creating k8s objects namespace will get created first so it don't throw an error.

apiVersion: v1

kind: Namespace

metadata:

name: dev3

**Step-02: Create LimitRange manifest**

apiVersion: v1

kind: ResourceQuota

metadata:

name: quota

namespace: dev3

spec:

hard:

requests.cpu: '1'

requests.memory: 200 Mi

limit.cpu: '2'

limit.memory: 500Mi

pods: '3'

secrets: '5'

services: '5'

**Compute resource quota limit:**

apiVersion: v1

kind: ResourceQuota

metadata:

name: compute-quota

namespace: dev3

spec:

hard:

requests.cpu: "4" # Maximum total CPU requests across all pods (in cores)

requests.memory: "8Gi" # Maximum total memory requests across all pods

limits.cpu: "8" # Maximum total CPU limits across all pods

limits.memory: "16Gi" # Maximum total memory limits across all pods

**Storage resource quota limit:**

apiVersion: v1

kind: ResourceQuota

metadata:

name: storage-quota

namespace: dev3

spec:

hard:

requests.storage: "100Gi" # Total storage requests across PVCs

persistentvolumeclaims: "10" # Maximum number of PersistentVolumeClaims

**Object resource quota limit:**

apiVersion: v1

kind: ResourceQuota

metadata:

name: object-count-quota

namespace: dev3

spec:

hard:

configmaps: "50" # Maximum number of ConfigMaps

secrets: "100" # Maximum number of Secrets

services: "10" # Maximum number of Services

pods: "200" # Maximum number of Pods