

Persistent Volume and Persistent Volume Claim



TOPICS COVERED

PV & PVC

DYNAMIC & STATIC PROVISIONING

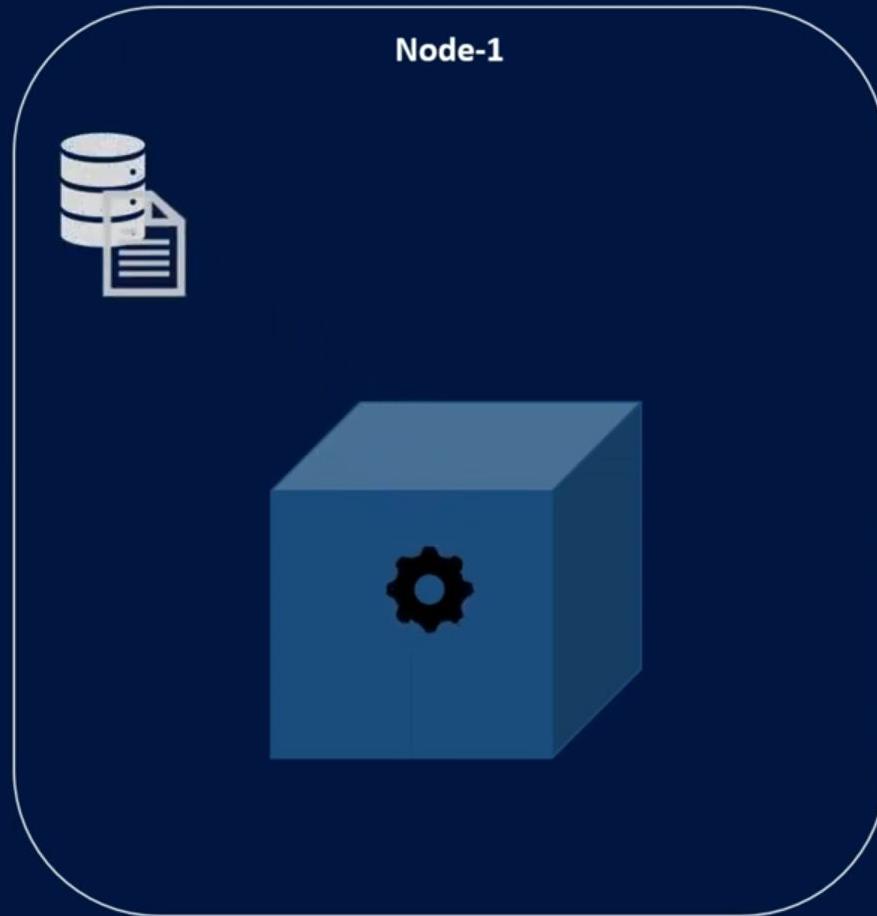
STORAGE CLASS



Volumes in Kubernetes



Volumes in Kubernetes



Volumes in Kubernetes

Node-1



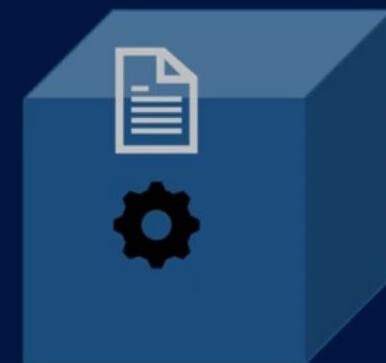
Node-2



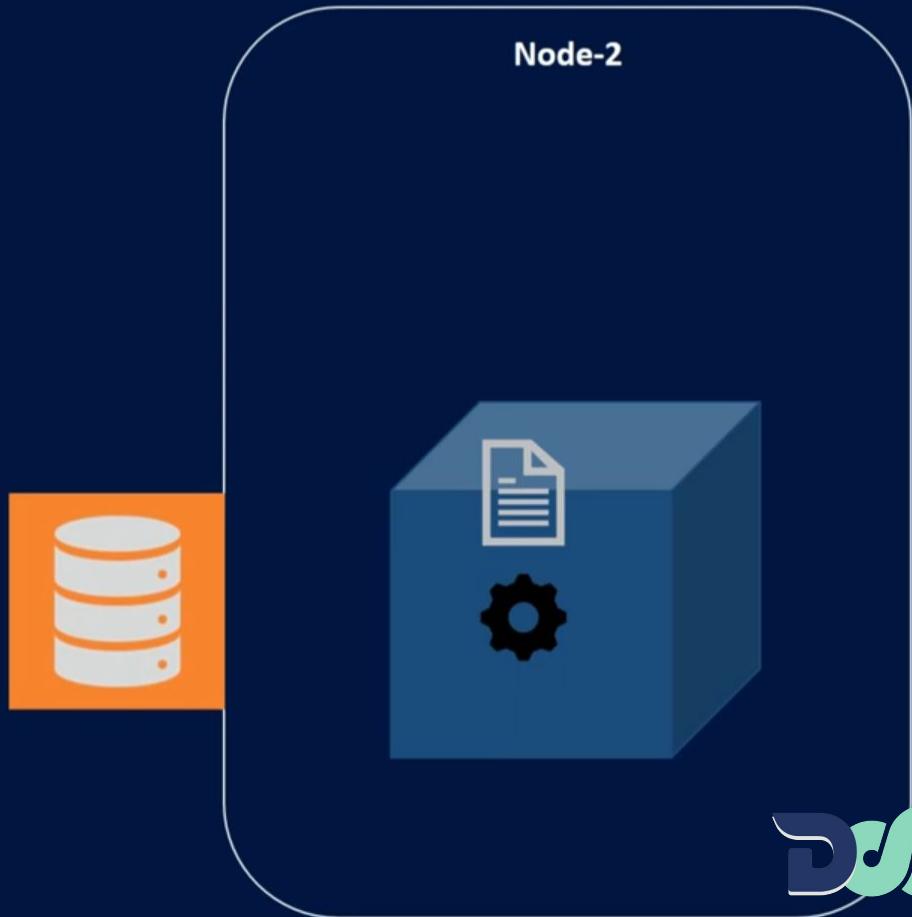
Volumes in Kubernetes



Node-2

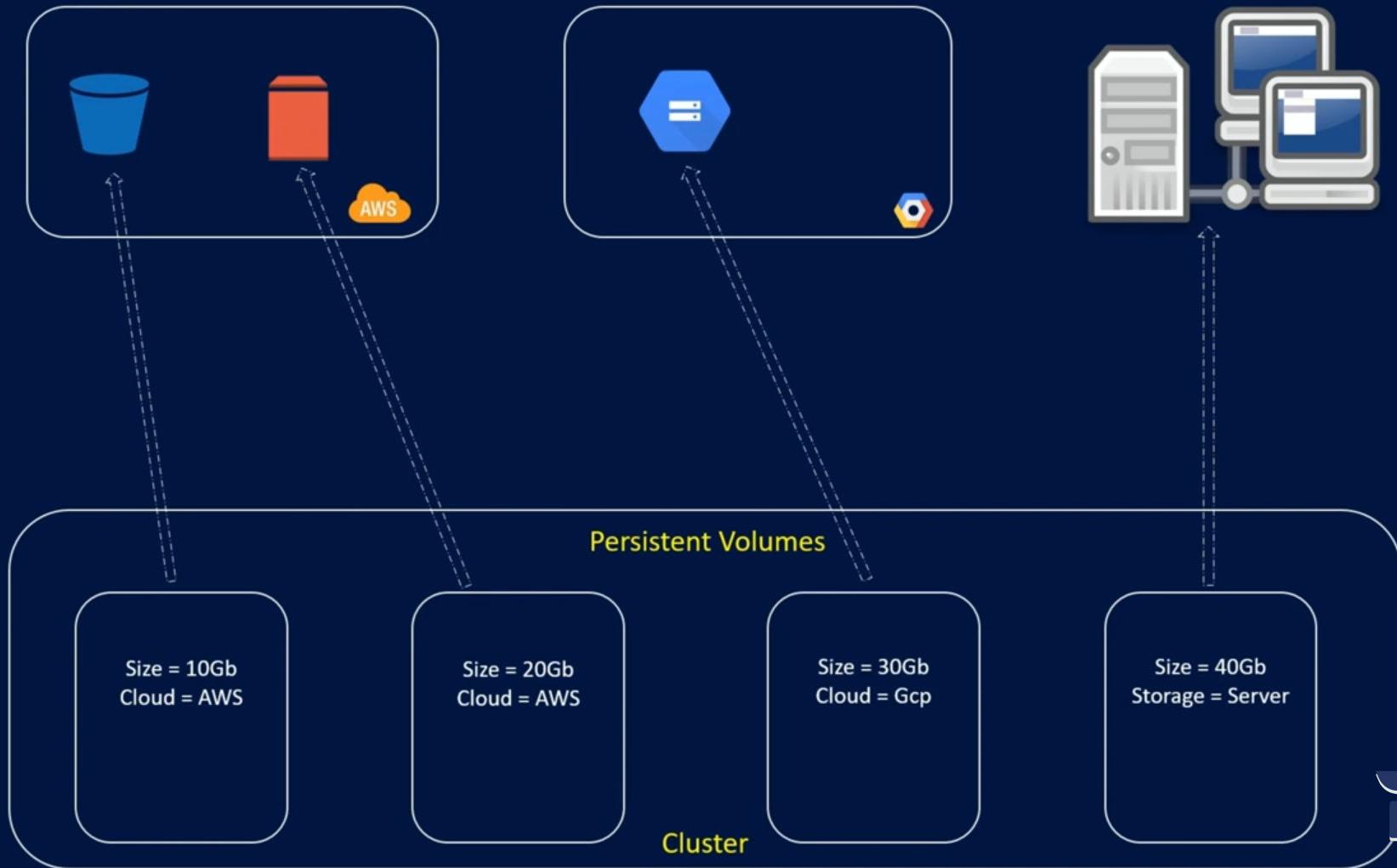


Volumes in Kubernetes



Persistent Volume and Persistent Volume Claim





Yaml File:-

```
apiVersion: v1
kind: PersistentVolume
metadata:
  name: pv-1
spec:
  capacity:
    storage: 5Gi
  accessModes:
    - ReadWriteOnce
  persistentVolumeReclaimPolicy: Retain
  awsElasticBlockStore:
    volumeID: "<volume id>"
    fsType: ext
```

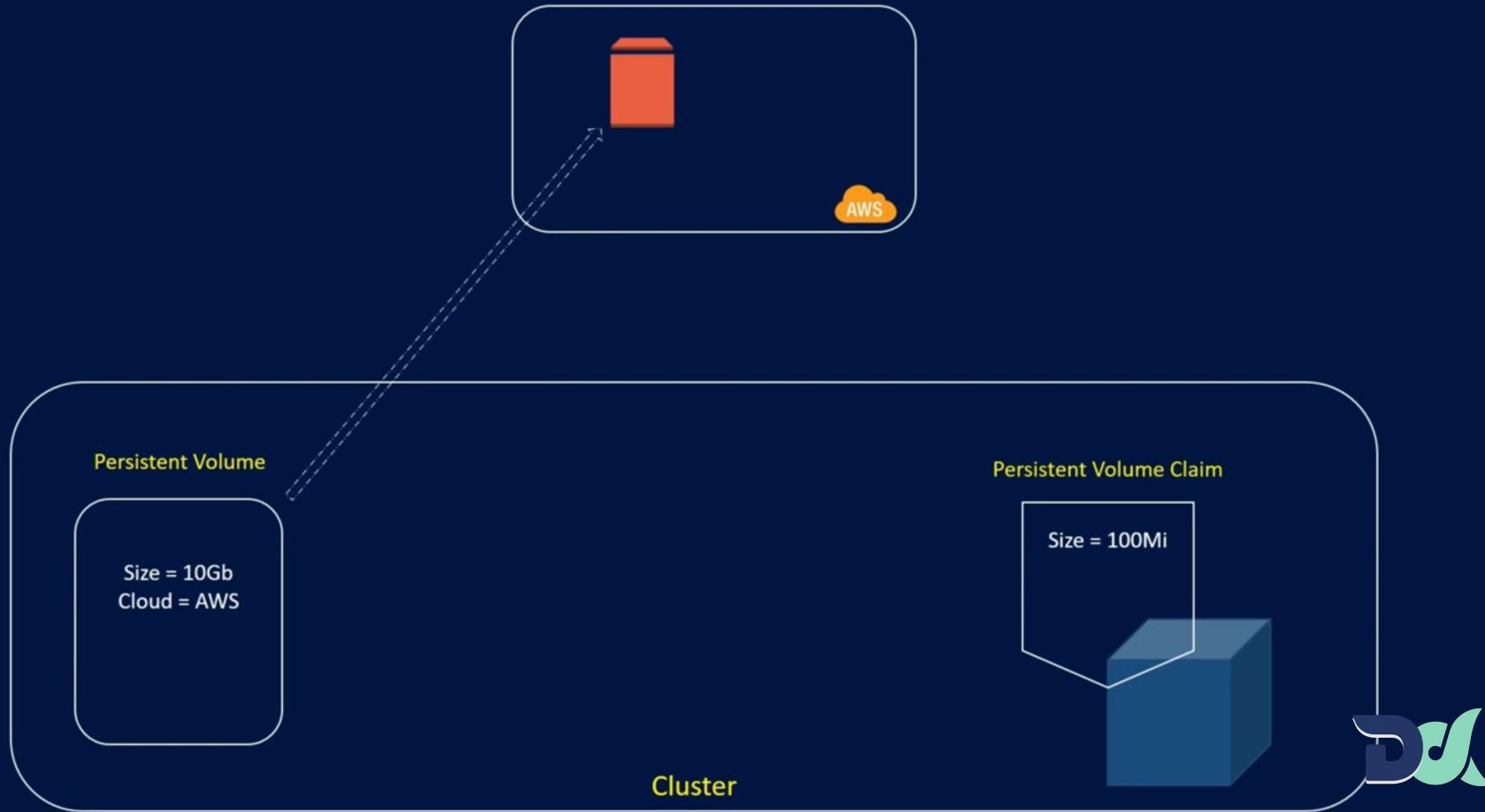


Yaml File:-

```
apiVersion: v1
kind: PersistentVolume
metadata:
  name: pv-1
spec:
  capacity:
    storage: 5Gi
  accessModes:
    - ReadWriteOnce
  persistentVolumeReclaimPolicy: Retain
  nfs:
    path: /tmp
    server: 172.17.0.2
```



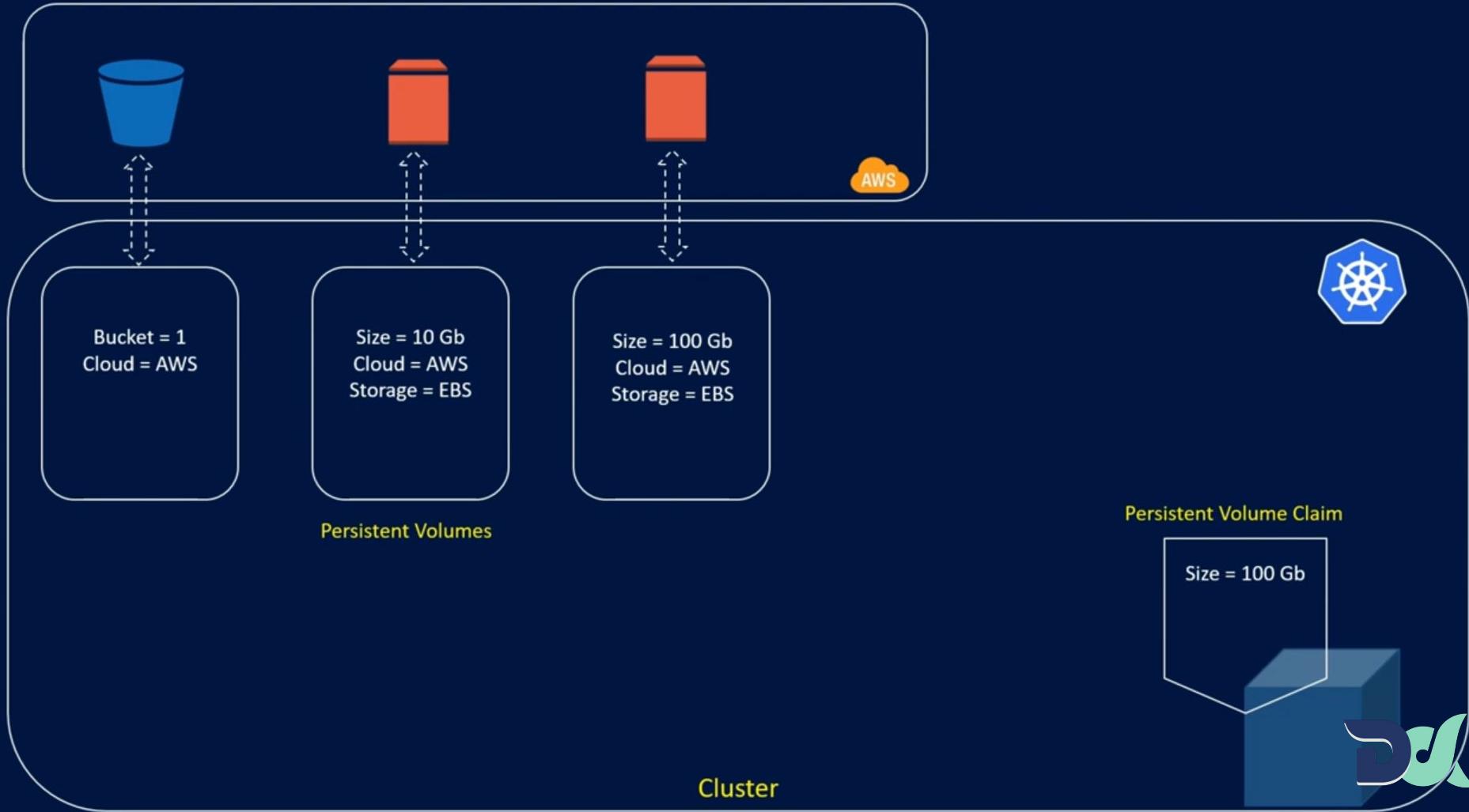
Persistent Volume Claim

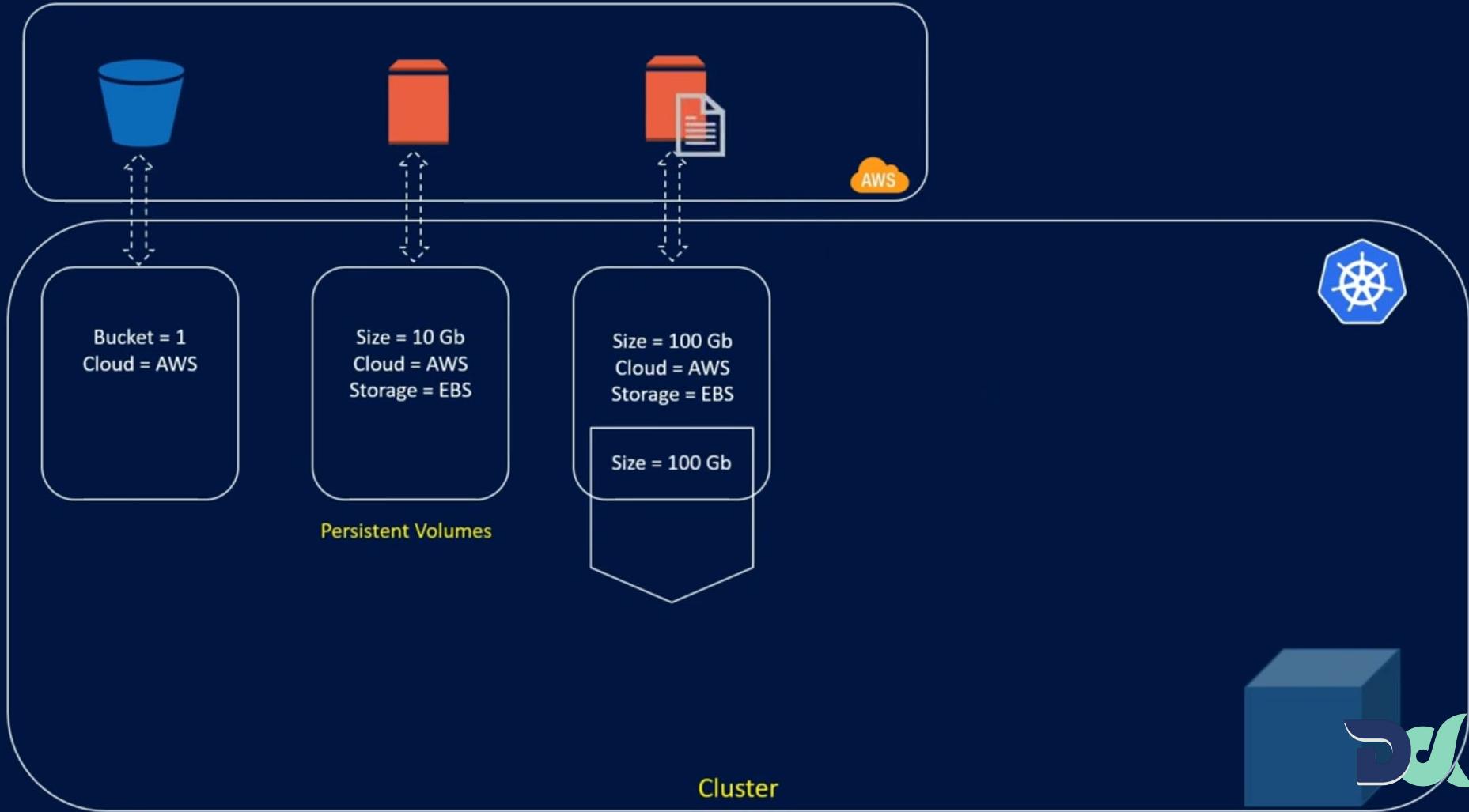


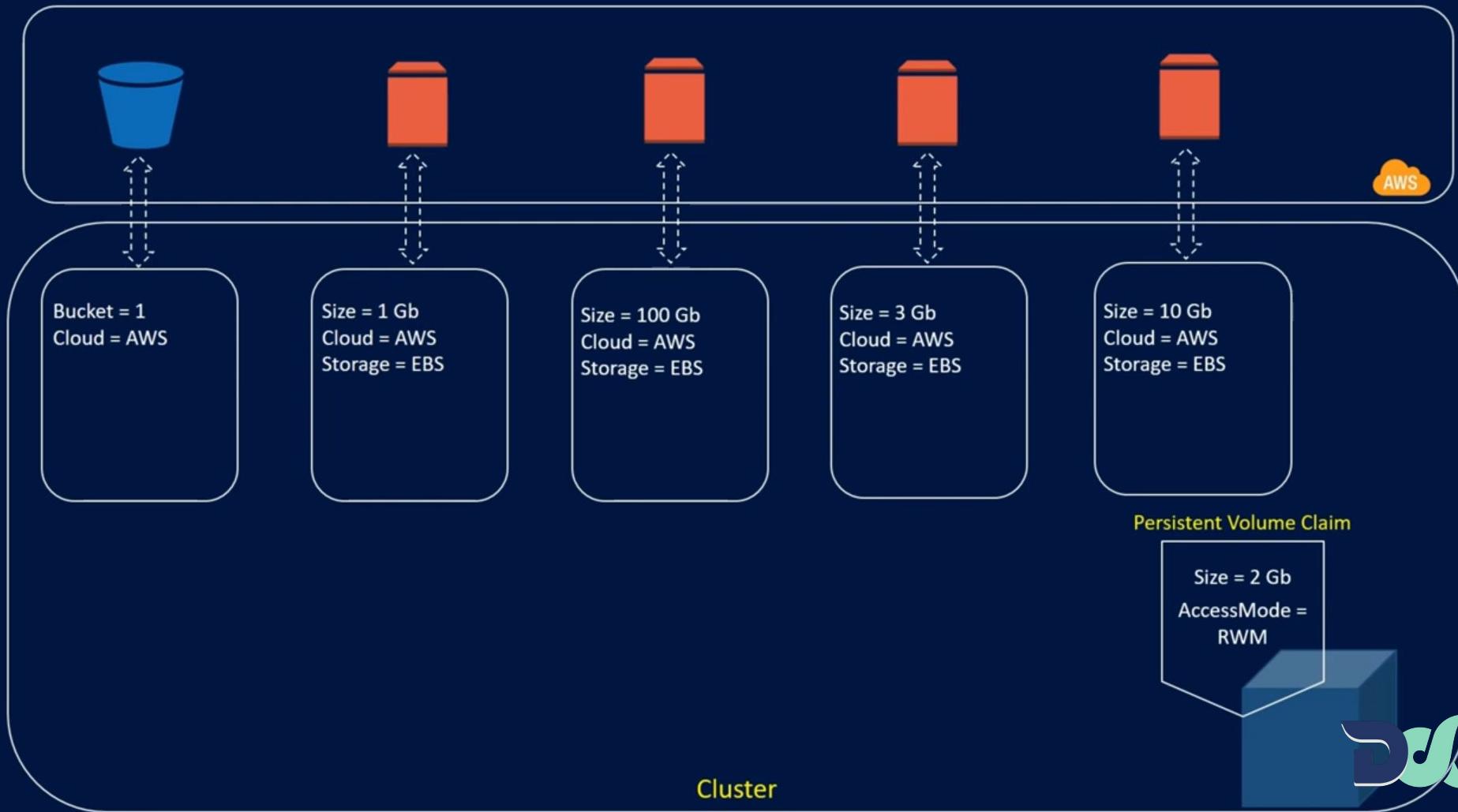
Yaml File:-

```
apiVersion: v1
kind: PersistentVolumeClaim
metadata:
  name: myclaim
spec:
  resources:
    requests:
      storage: 8Gi
  accessModes:
    - ReadWriteOnce
```











AWS

Bucket = 1
Cloud = AWS

Size = 1 Gb
Cloud = AWS
Storage = EBS

Persistent Volumes

Size = 100 Gb
Cloud = AWS
Storage = EBS

Size = 3 Gb
Cloud = AWS
Storage = EBS

Size = 10 Gb
Cloud = AWS
Storage = EBS

ReadWriteOnce

ReadOnlyMany

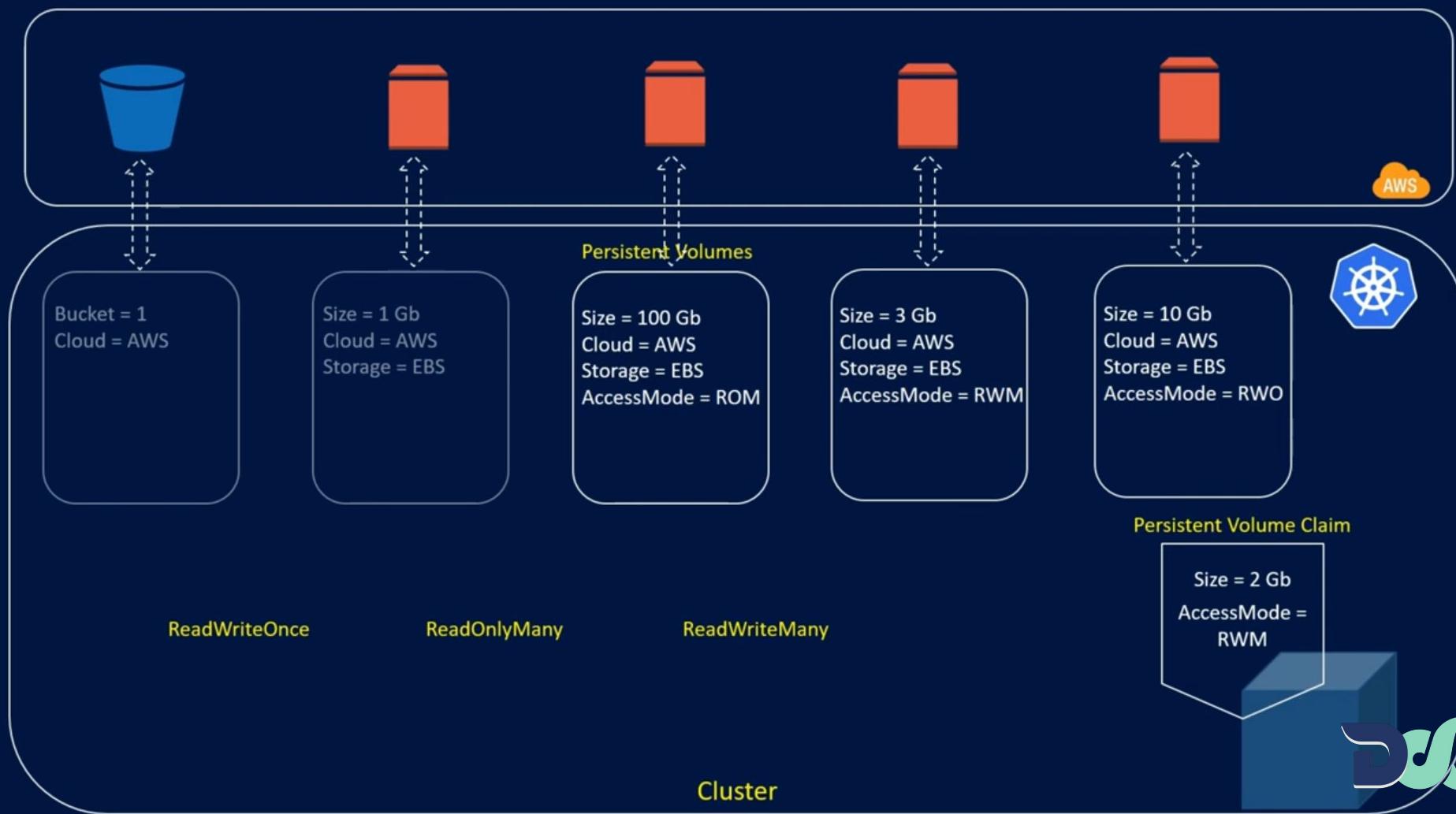
ReadWriteMany

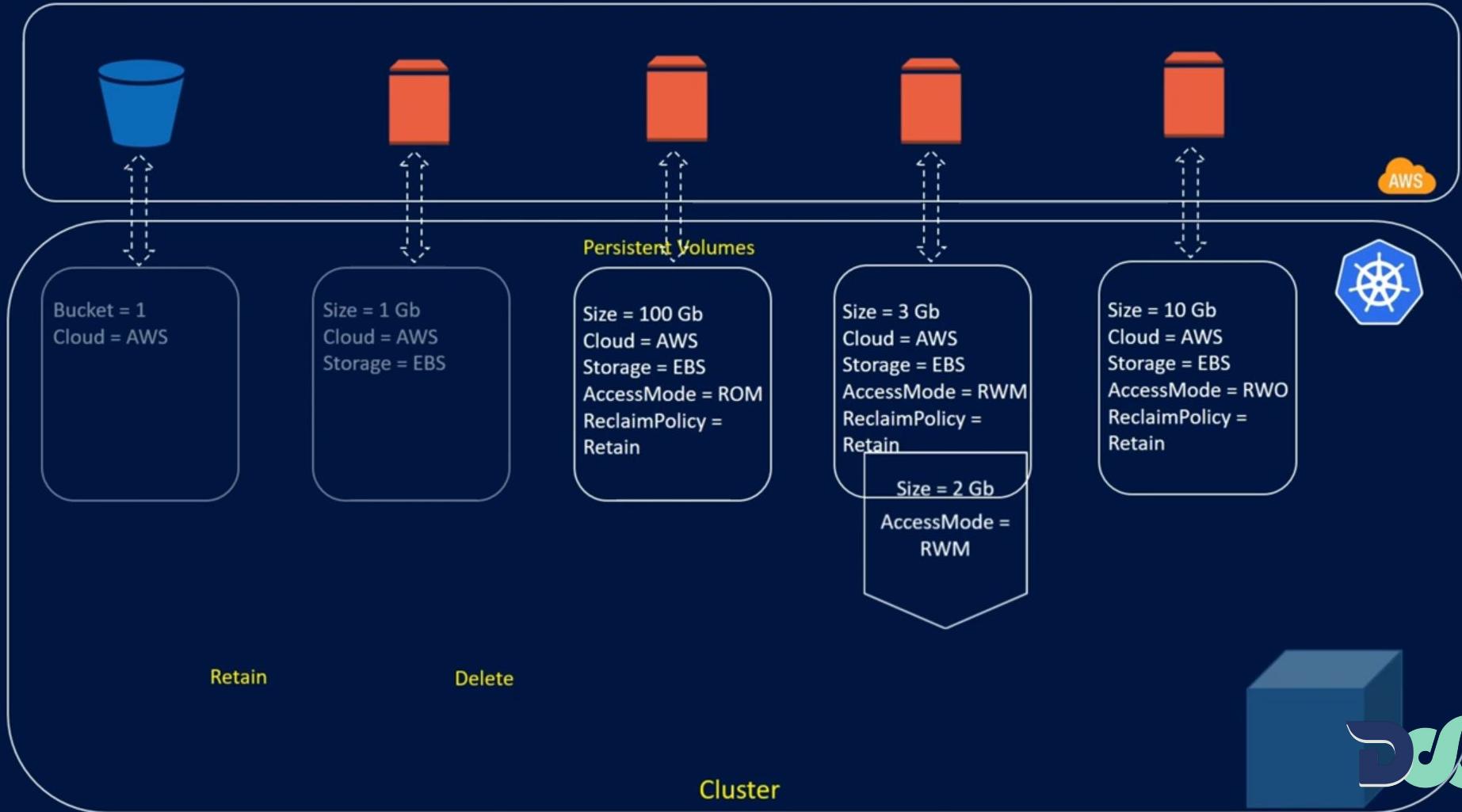
Persistent Volume Claim

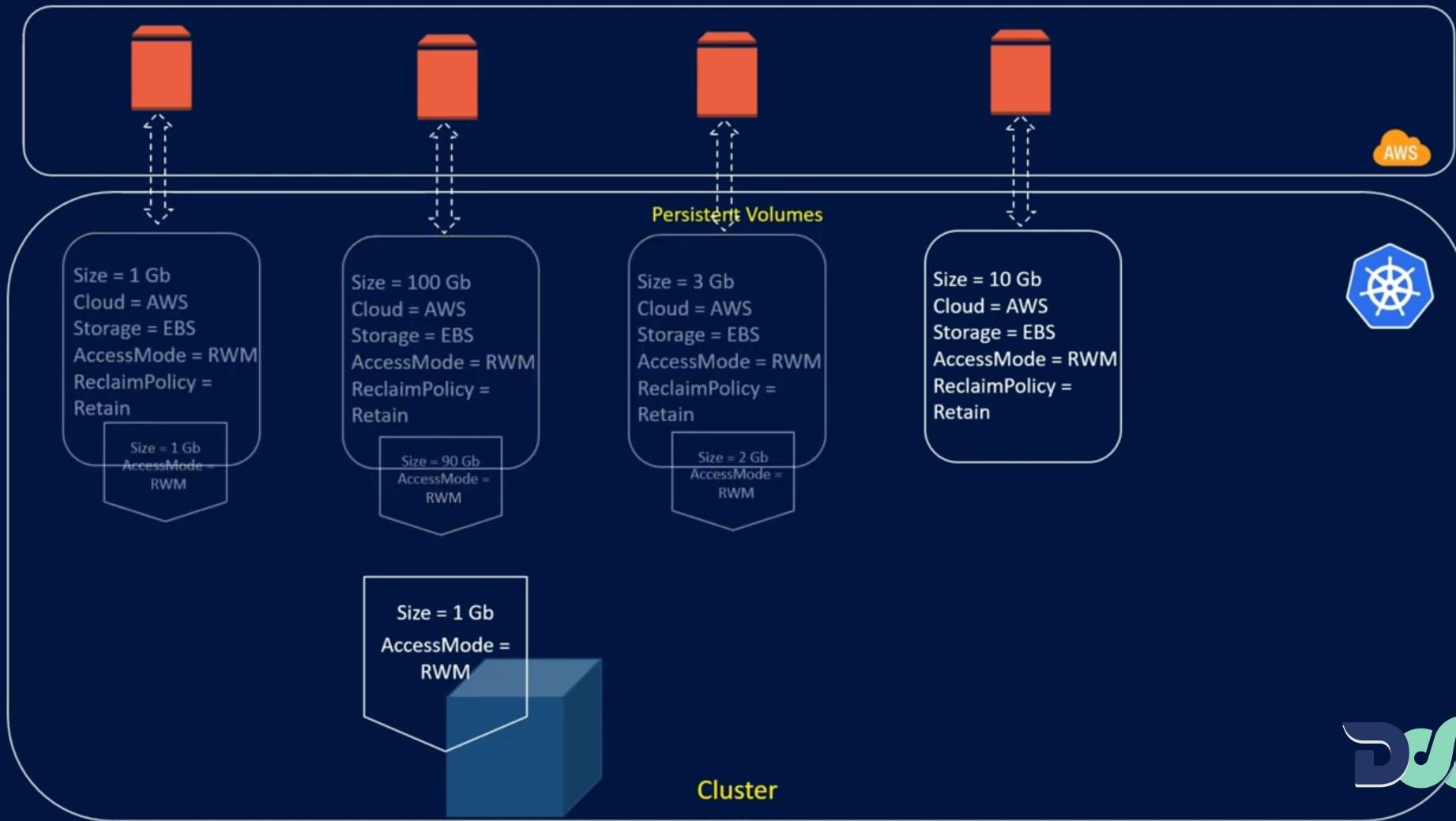
Size = 2 Gb
AccessMode =
RWM

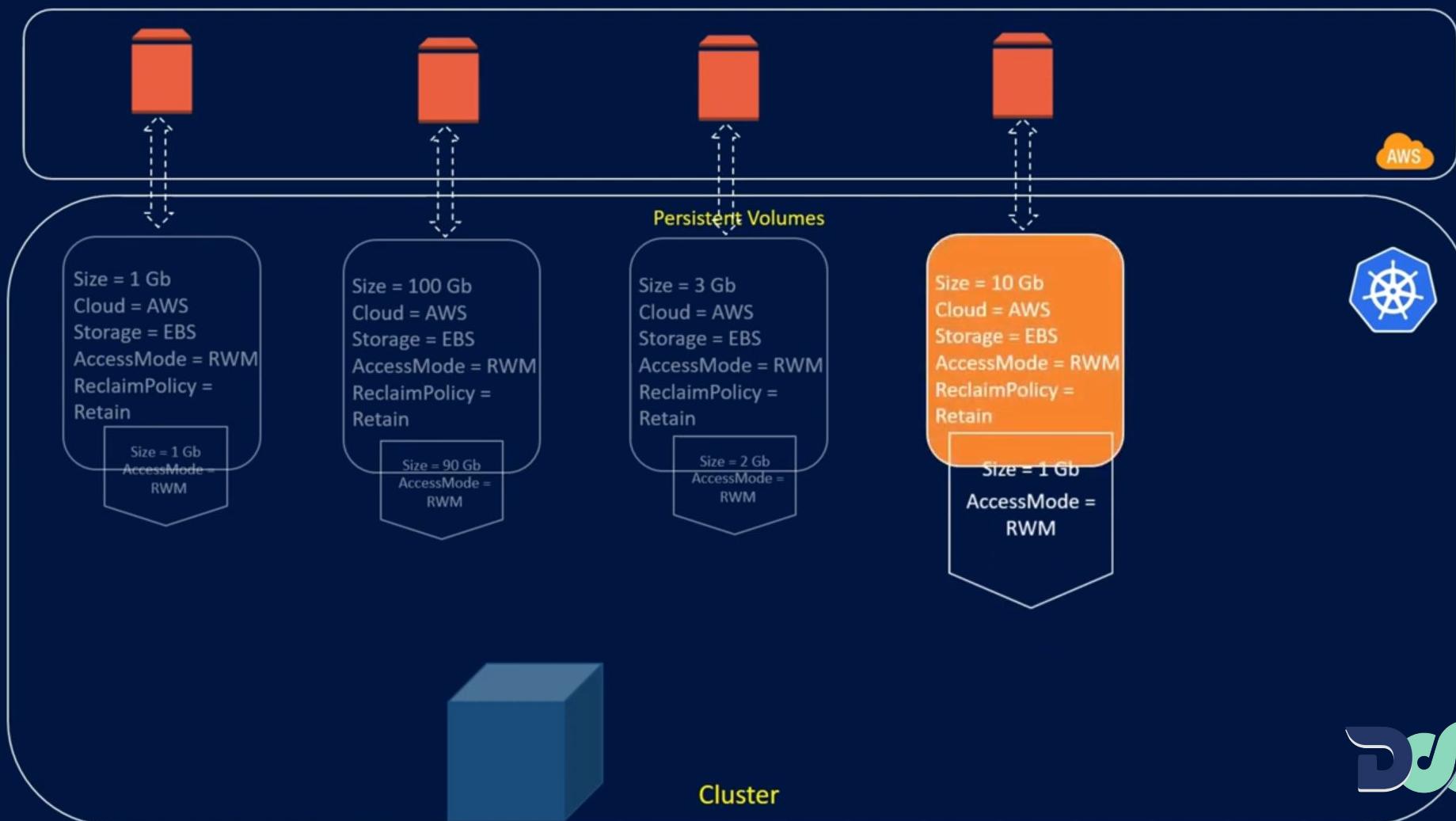
Cluster

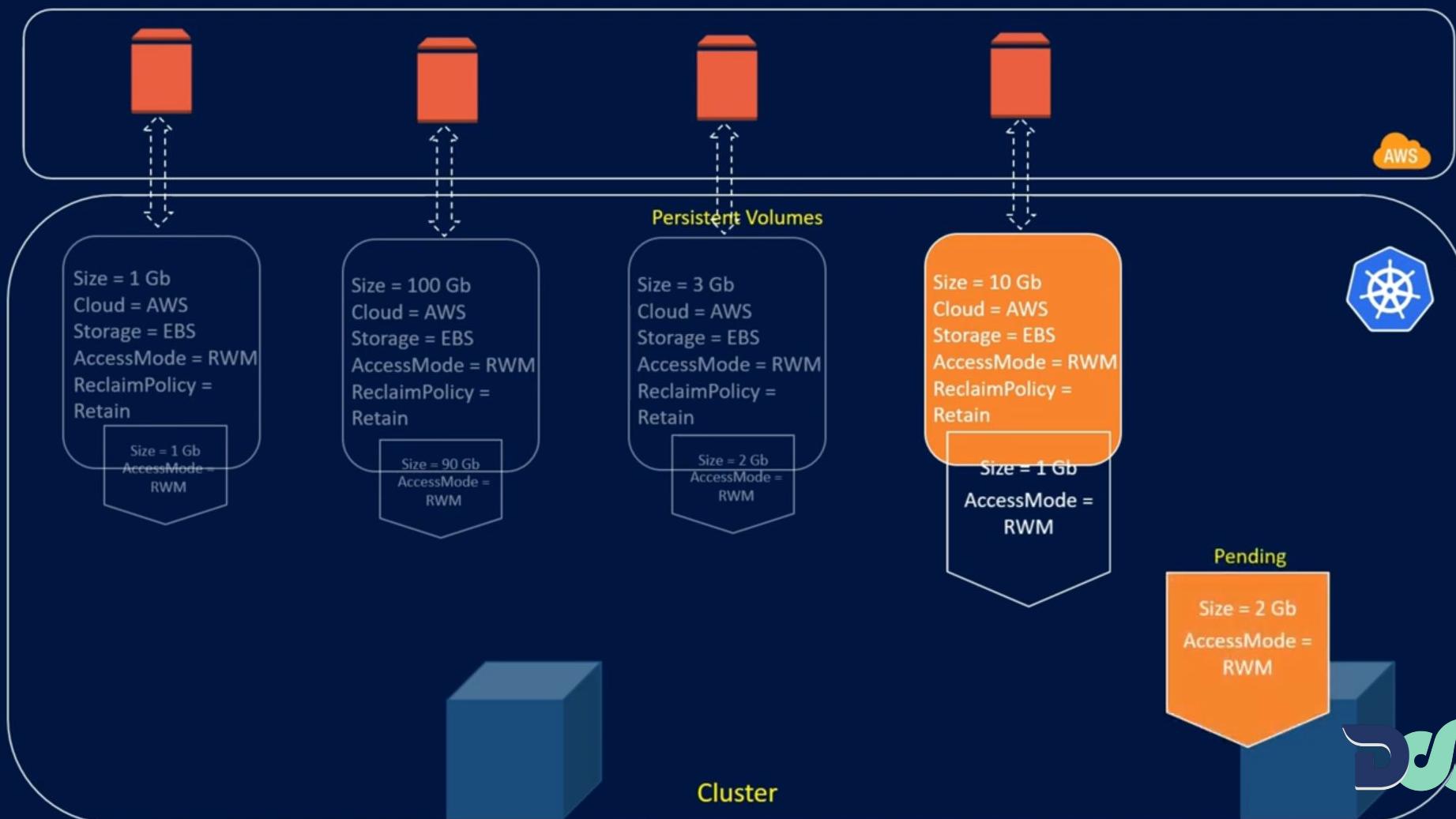








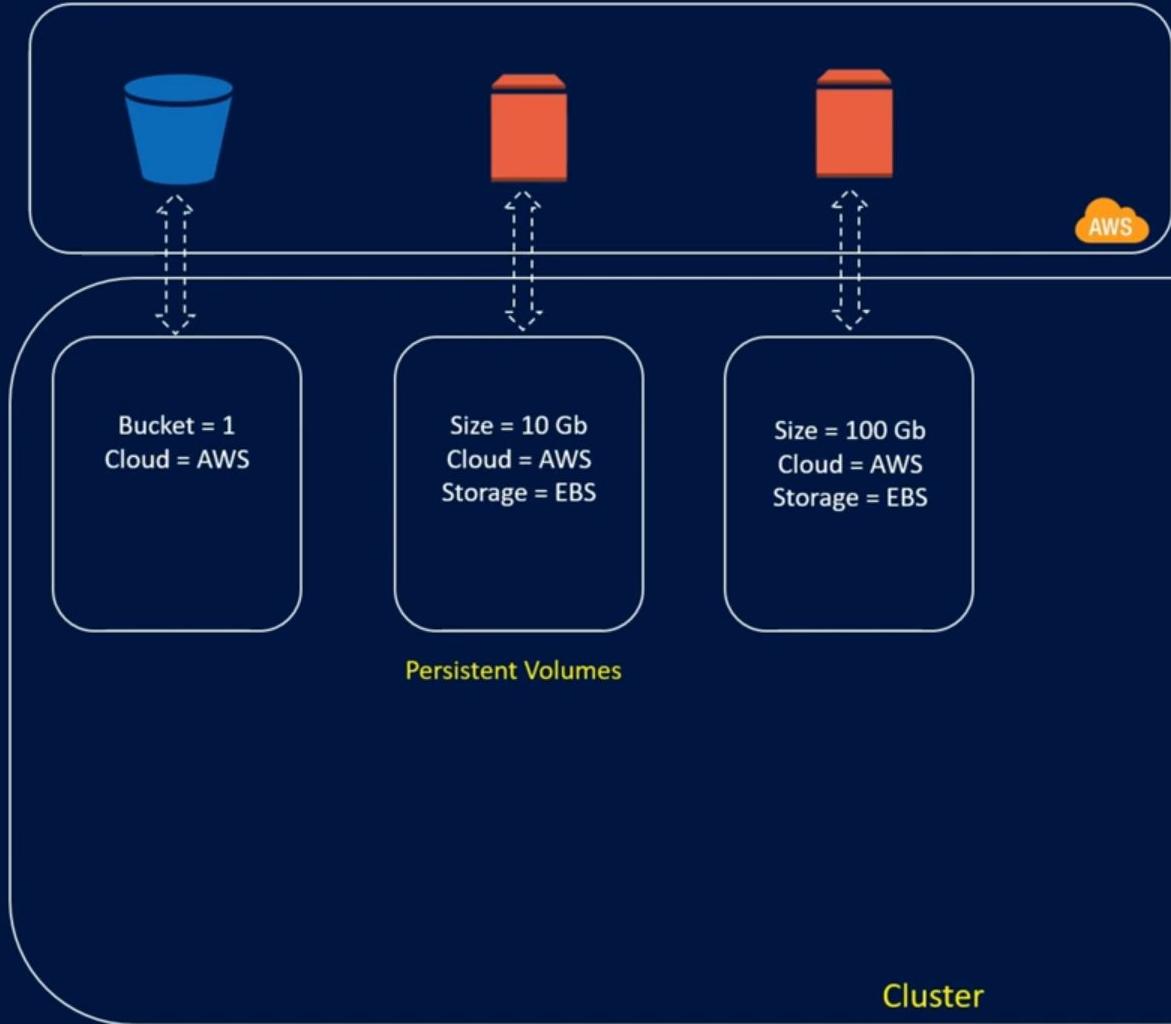




Static and Dynamic Provisioning



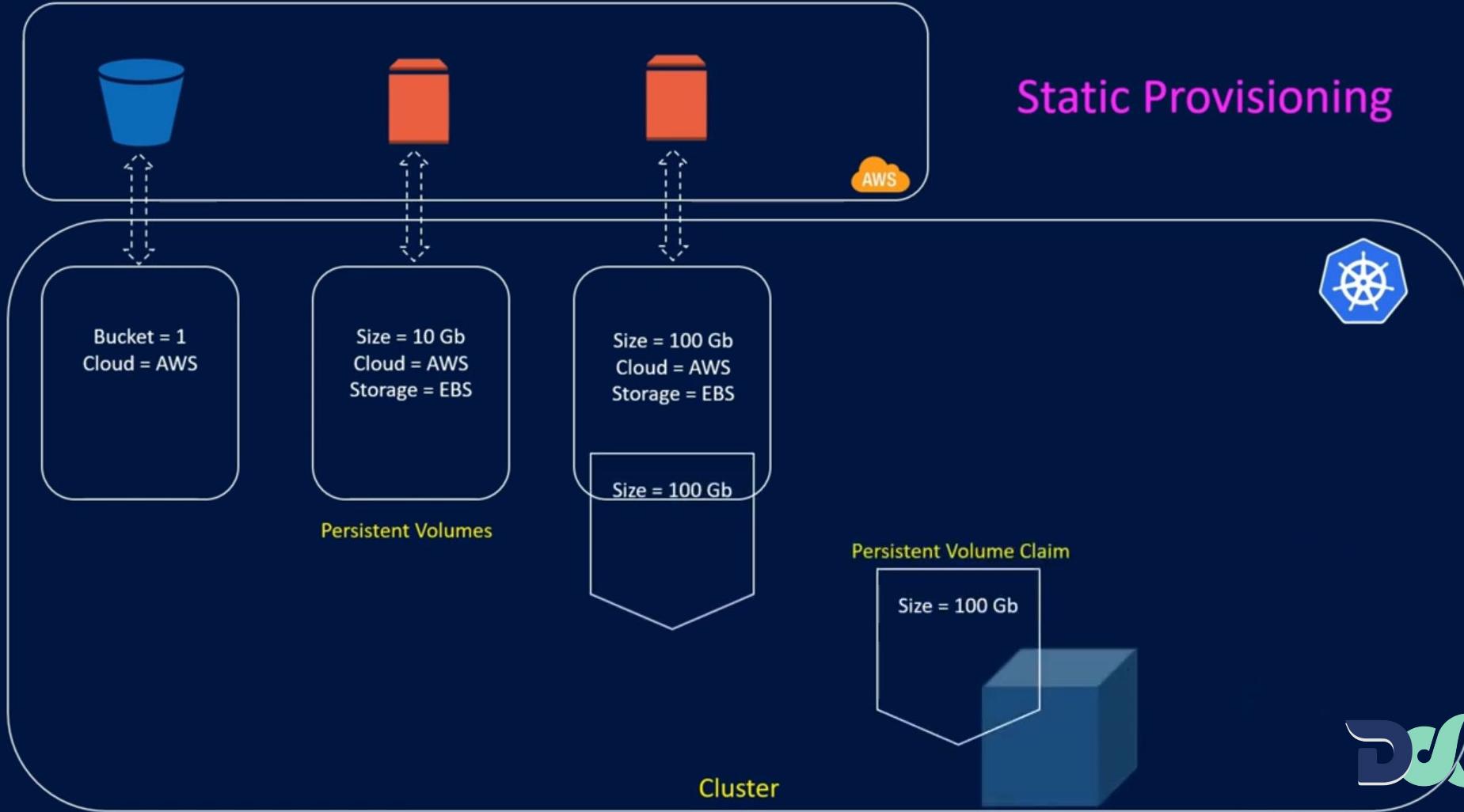
Static Provisioning



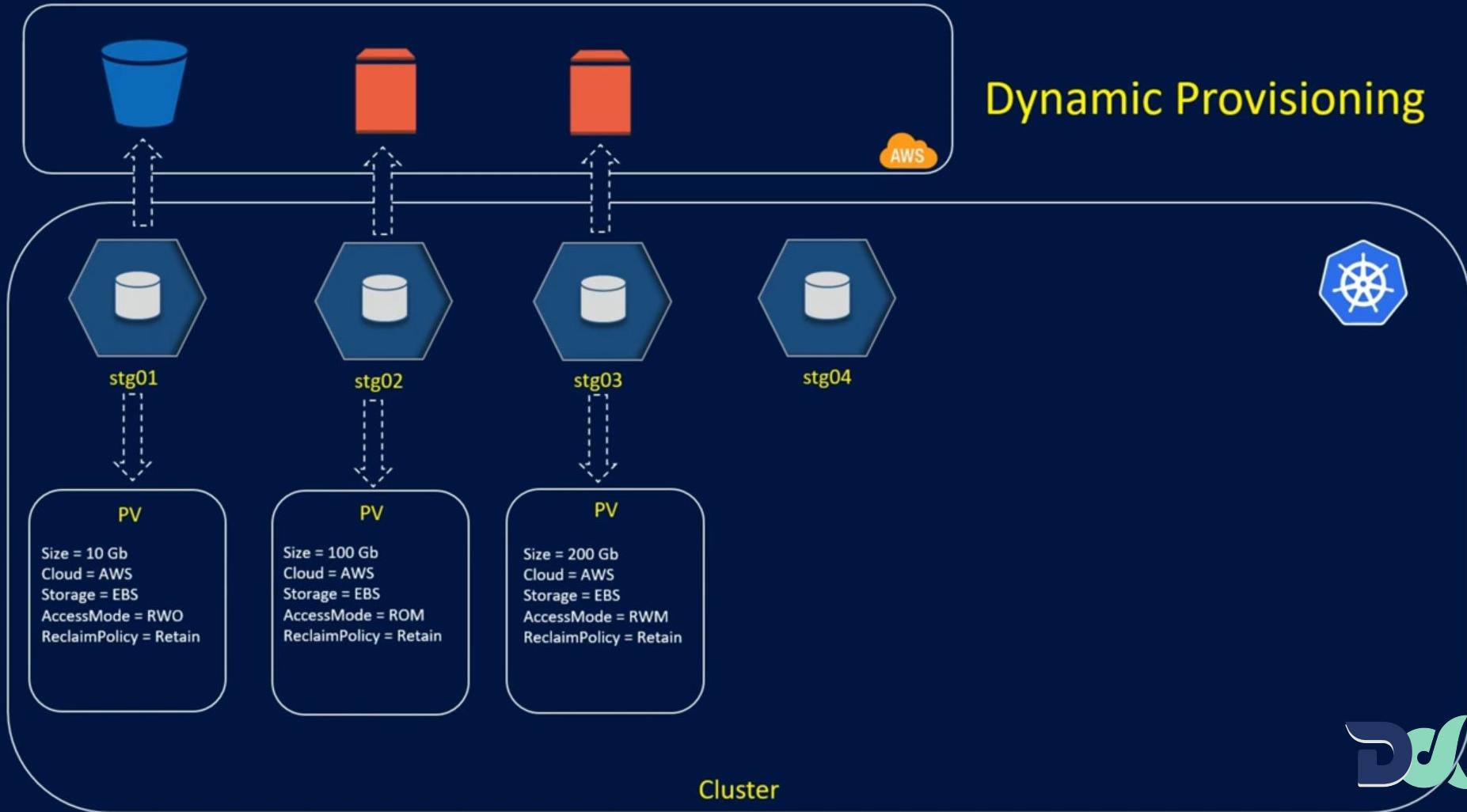
Persistent Volume Claim



Static Provisioning



Dynamic Provisioning



Yaml File:-

```
apiVersion: storage.k8s.io/v1
kind: StorageClass
metadata:
  name: standard
provisioner: kubernetes.io/aws-ebs
parameters:
  type: gp2
reclaimPolicy: Retain
```



Dynamic Provisioning

