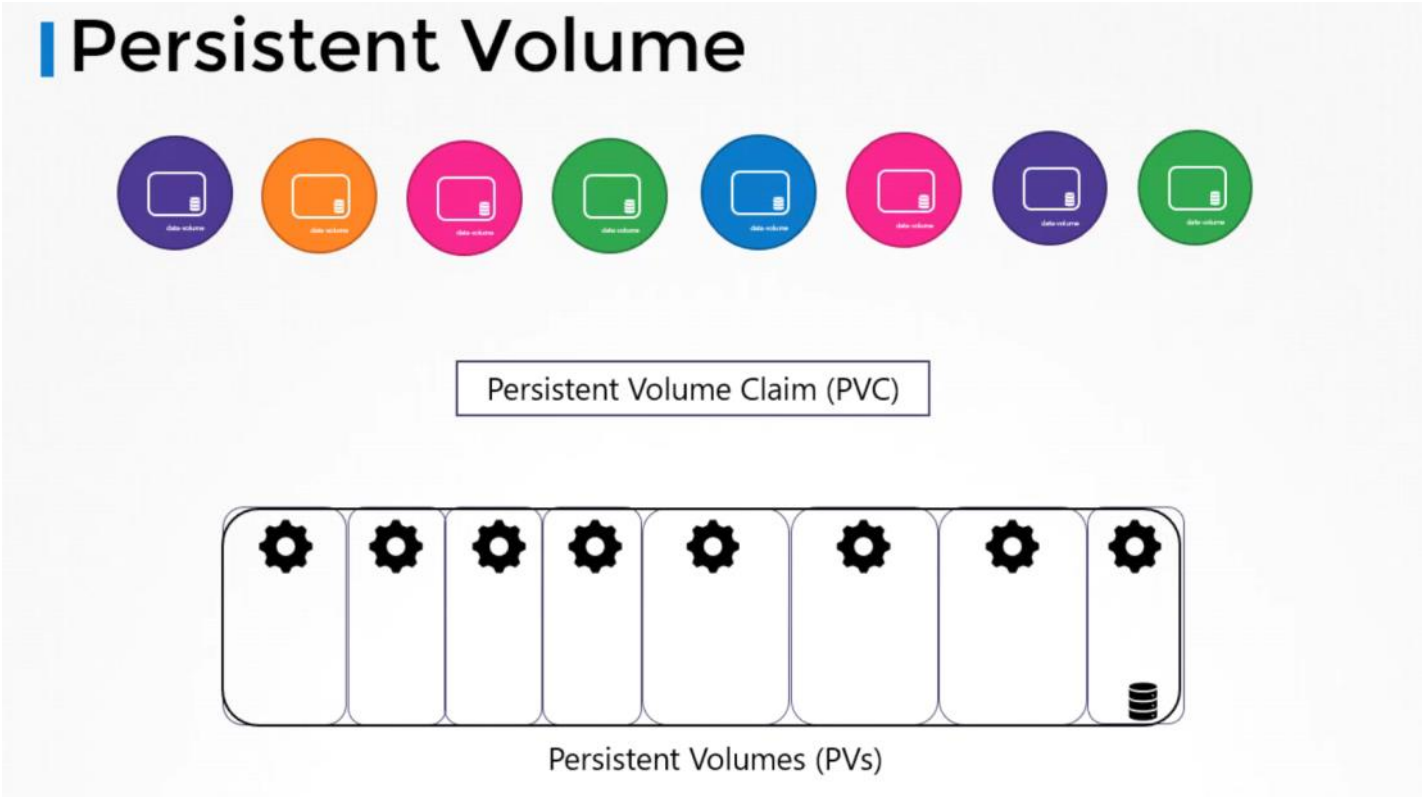
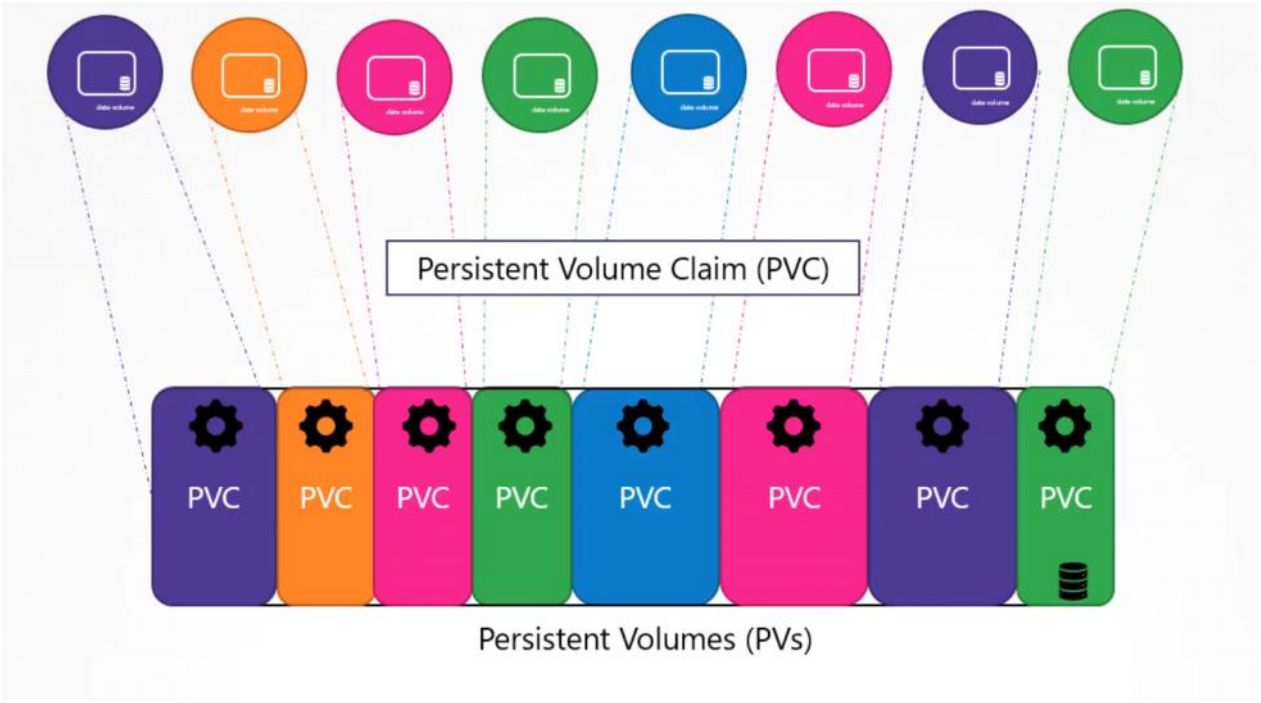
PERSISTENT VOLUMES





Persistent Volume

pv-definition.yaml

```yaml
apiVersion: v1
kind: PersistentVolume
metadata:
   name: pv-vol1
spec:
  accessModes:
      - ReadWriteOnce
```

- ReadOnlyMany
- ReadWriteOnce
- ReadWriteMany

Persistent Volume

pv-definition.yaml

```yaml
apiVersion: v1
kind: PersistentVolume
metadata:
   name: pv-vol1
spec:
  accessModes:
      - ReadWriteOnce
  capacity:
      storage: 1Gi
  hostPath:
     path: /tmp/data
```

```
kubectl create -f pv-definition.yaml
```

Persistent Volume (PV)

```
kubectl get persistentvolume
```

NAME	CAPACITY	ACCESS MODES	RECLAIM POLICY	STATUS	CLAIM	STORAGECLASS	REASON	AGE
pv-vol1	1Gi	RWO	Retain	Available				3m

pv-definition.yaml

```yaml
apiVersion: v1
kind: PersistentVolume
metadata:
   name: pv-vol1
spec:
  accessModes:
      - ReadWriteOnce
  capacity:
      storage: 1Gi
  awsElasticBlockStore:
    volumeID: <volume-id>
    fsType: ext4
```

Using PVCs in PODs

Once you create a PVC use it in a POD definition file by specifying the PVC Claim name under persistentVolumeClaim section in the volumes section like this:

```yaml
apiVersion: v1
kind: Pod
metadata:
  name: mypod
spec:
  containers:
    - name: myfrontend
      image: nginx
      volumeMounts:
      - mountPath: "/var/www/html"
        name: mypd
  volumes:
    - name: mypd
      persistentVolumeClaim:
        claimName: myclaim
```

The same is true for ReplicaSets or Deployments. Add this to the pod template section of a Deployment on ReplicaSet.

Reference
URL: https://kubernetes.io/docs/concepts/storage/persistent-volumes/#claims-as-volumes