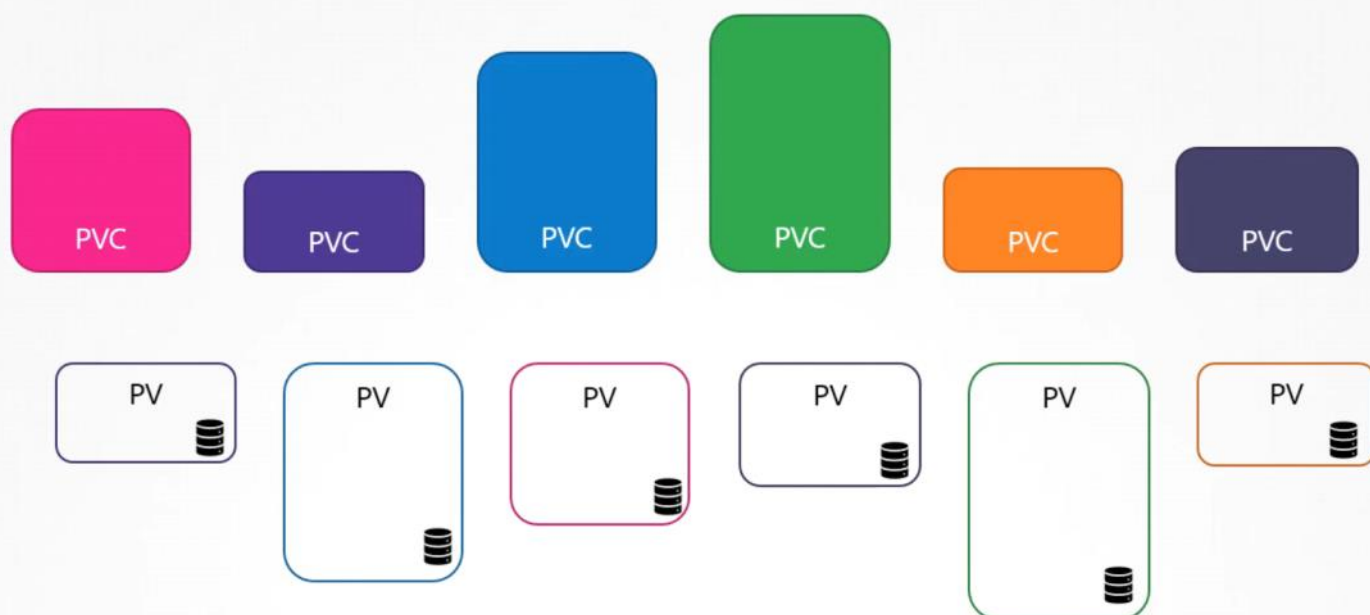
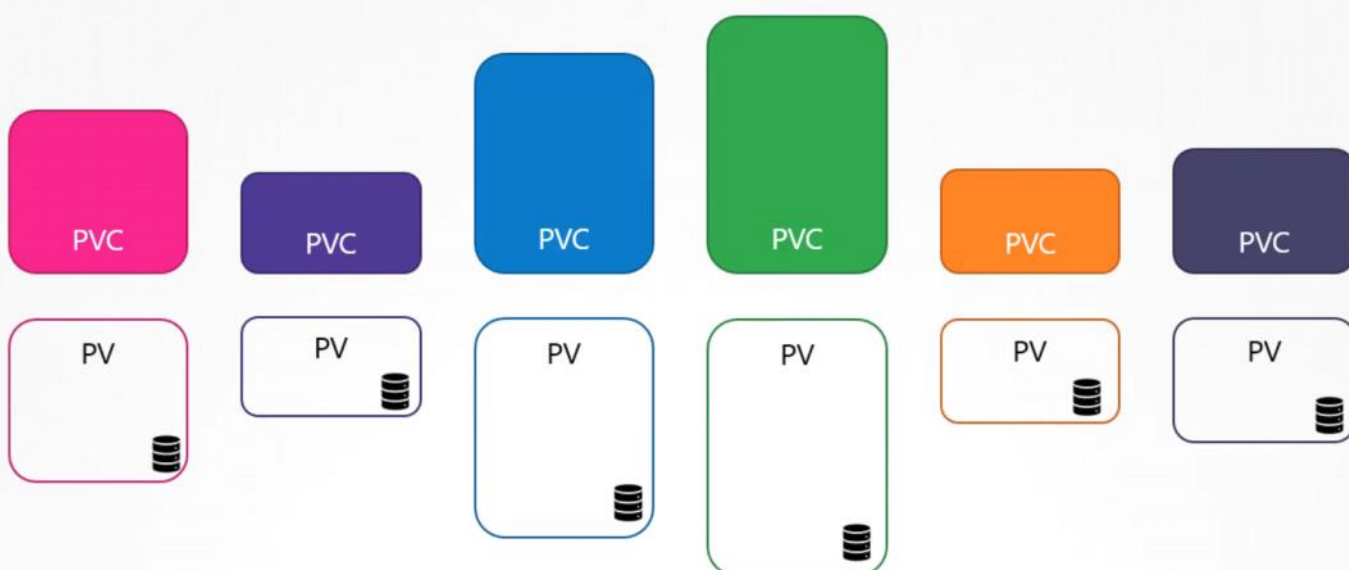


PERSISTENT VOLUME CLAIMS

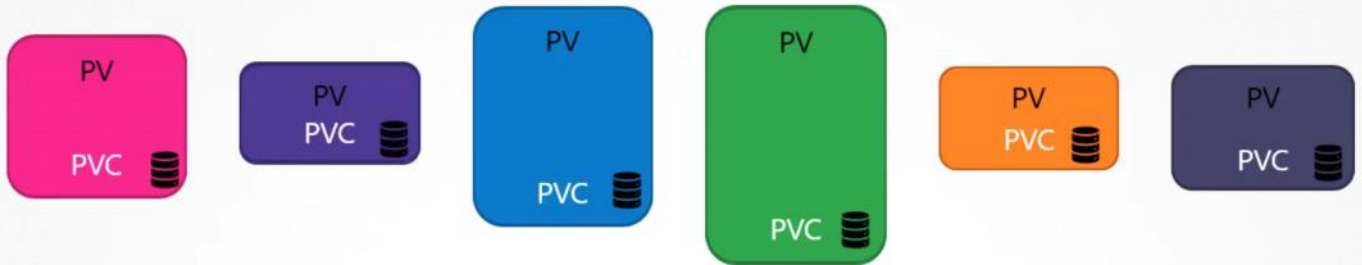
Persistent Volume Claim



Binding



Binding

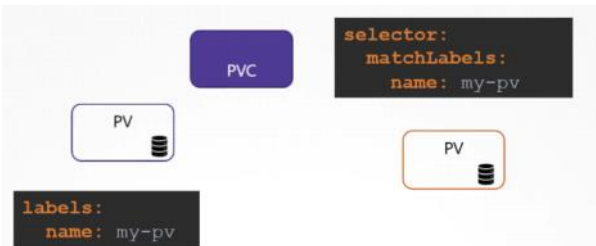


Sufficient Capacity

Access Modes

Volume Modes

Storage Class



| Persistent Volume Claim

pvc-definition.yaml

```
apiVersion: v1
kind: PersistentVolumeClaim
metadata:
  name: myclaim
spec:
  accessModes:
    - ReadWriteOnce
  resources:
    requests:
      storage: 500Mi
```

```
▶ kubectl create -f pvc-definition.yaml
```

▶ kubectl get persistentvolumeclaim

| NAME | STATUS | VOLUME | CAPACITY | ACCESS MODES |
|---------|---------|--------|----------|--------------|
| myclaim | Pending | | | |

| Persistent Volume Claim

pvc-definition.yaml

```
apiVersion: v1
kind: PersistentVolumeClaim
metadata:
  name: myclaim
spec:
  accessModes:
    - ReadWriteOnce
  resources:
    requests:
      storage: 500Mi
```

```
▶ kubectl create -f pvc-definition.yaml
```

pv-definition.yaml

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

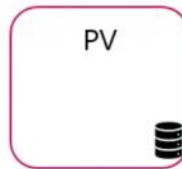
| View PVCs

▶ kubectl get persistentvolumeclaim

| NAME | STATUS | VOLUME | CAPACITY | ACCESS MODES | STORAGECLASS | AGE |
|---------|--------|---------|----------|--------------|--------------|-----|
| myclaim | Bound | pv-vol1 | 1Gi | RWO | | 43m |

Delete PVCs

```
▶ kubectl delete persistentvolumeclaim myclaim  
persistentvolumeclaim "myclaim" deleted
```



```
persistentVolumeReclaimPolicy: Retain
```

```
persistentVolumeReclaimPolicy: Delete
```

```
persistentVolumeReclaimPolicy: Recycle
```

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:

```
1  apiVersion: v1  
2  kind: Pod  
3  metadata:  
4    name: mypod  
5  spec:  
6    containers:  
7      - name: myfrontend  
8        image: nginx  
9        volumeMounts:  
10       - mountPath: "/var/www/html"  
11         name: mypd  
12    volumes:  
13      - name: mypd  
14        persistentVolumeClaim:  
15          claimName: myclaim
```

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

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