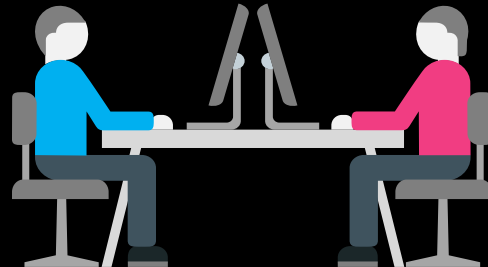


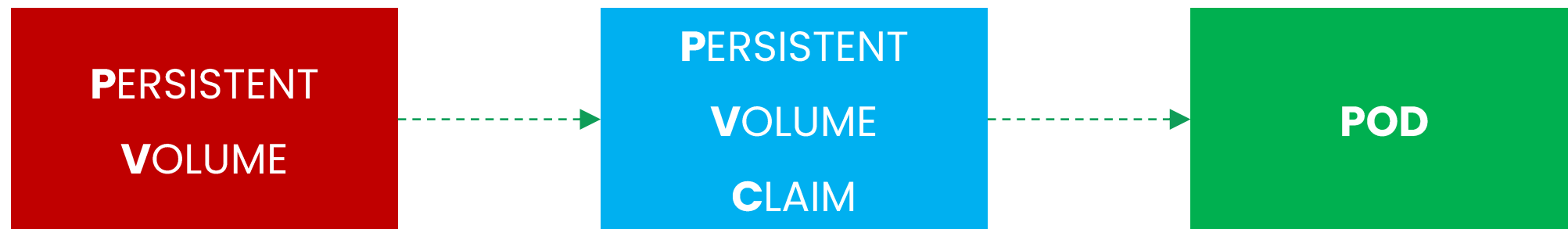


Configuring Pod to use PVC

(Using Static Volume Provisioning)



PV – PVC – POD



CREATING – DISK, PV & PVC

1 Creating Storage Disk

```
gcloud auth login
```

```
gcloud compute disks create mongodb --size=10GiB --zone=us-central1-a
```

2 Creating Persistent Volume (PV)

```
apiVersion: v1
kind: PersistentVolume
metadata:
  name: mongodb-pv
spec:
  capacity:
    storage: 10Gi
  accessModes:
    - ReadWriteOnce
  persistentVolumeReclaimPolicy: Retain
  gcePersistentDisk:
    pdName: mongodb
    fsType: ext4
```

3 Creating Persistent Volume Claim (PVC)

```
apiVersion: v1
kind: PersistentVolumeClaim
metadata:
  name: mongodb-pvc
spec:
  storageClassName: ""
  resources:
    requests:
      storage: 10Gi
  accessModes:
    - ReadWriteOnce
```

CREATING – DISK, PV & PVC

4 Configuring POD to use PVC

```
apiVersion: v1
kind: Pod
metadata:
  name: pv-pod
spec:
  containers:
  - name: test-container
    image: nginx
    volumeMounts:
    - mountPath: /test-pd
      name: test-volume
  volumes:
  - name: test-volume
    persistentVolumeClaim:
      claimName: mongodb-pvc
```

GCE PERSISTENT DISK – GCE VMs

Run on **Master** node

1 `gcloud auth login`

Run on **Master** node

2 `gcloud compute disks create --size=10GB --zone=us-central1-a my-data-disk`

4 Manually attach this disk to worker node from dashboard

Run on **Worker** node (where pod is scheduled)

4 `mkfs.ext4 /dev/disk/by-id/scsi-0Google_PersistentDisk_my-data-disk`

Run on **Worker** node (where pod is scheduled)

5 `mkdir -p /var/lib/kubelet/plugins/kubernetes.io/gce-pd/mounts/my-data-disk &&
mount /dev/disk/by-id/scsi-0Google_PersistentDisk_my-data-disk
/var/lib/kubelet/plugins/kubernetes.io/gce-pd/mounts/my-data-disk`

Run on **Master** node

3

```
apiVersion: v1
kind: Pod
metadata:
  name: gce-pd
spec:
  containers:
  - image: mongo
    name: mongodb
    volumeMounts:
    - name: mongodb-data
      mountPath: /data/db
  volumes:
  - name: mongodb-data
    gcePersistentDisk:
      pdName: my-data-disk
      fsType: ext4
```

DISPLAYING – DISK, PV & PVC

1 Storage Disk

```
gcloud compute disks list
```

NAME	ZONE	SIZE_GB	TYPE	STATUS
...				
mongodb	us-central1-a	10	pd-standard	READY
...				

2 Persistent Volume (PV)

```
kubectl get pv
```

NAME	CAPACITY	ACCESS MODES	RECLAIM POLICY	STATUS	CLAIM	STORAGECLASS	REASON	AGE
mongodb-pv	10Gi	RWO	Retain	Bound	default/mongodb-pvc			36m

3 Persistent Volume Claim (PVC)

```
kubectl get pvc
```

NAME	STATUS	VOLUME	CAPACITY	ACCESS MODES	STORAGECLASS	AGE
mongodb-pvc	Bound	mongodb-pv	10Gi	RWO		33m