CKA Lab Part 6 - Storage

Lab 1 - Create a PV

Create a PV in your environment 1GB in size. Pick a type suitable for your lab:

- HostPath (for single nodes)
- NFS
- Azure Disk
- Etc

Ensure it is capable of being both read and written to.

```
apiVersion: v1
kind: PersistentVolume
metadata:
 name: pv-hostpath-1gb
spec:
 capacity:
   storage: 1Gi
 volumeMode: Filesystem
 accessModes:
   - ReadWriteOnce
 persistentVolumeReclaimPolicy: Recycle
 storageClassName: slow
 hostPath:
   path: /tmp
```

Lab 2 - Modify PV

Change the access mode of the PV in lab 1 to “ReadOnlyMany”

Change:

```
 accessModes:
   - ReadWriteOnce

To:

 accessModes:
   - ReadOnlyMany
```

Lab 3 - Create a PVC

Create a claim to the persistent volume you created in Lab 1, for 512MB. Choose an applicable access mode based on the state of the persistent volume

```
kind: PersistentVolumeClaim
apiVersion: v1
metadata:
 name: myclaim
spec:
 accessModes:
   - ReadOnlyMany
 volumeMode: Filesystem
 resources:
   requests:
     storage: 512Mi
 storageClassName: slow
```

Lab 4 - Consume storage

Configure a pod to leverage the PVC and mount it to /mnt/readonly

```
apiVersion: v1
kind: Pod
metadata:
 name: pod-with-ro-mount
```

```
spec:
 volumes:
   - name: readonlyvolume
     persistentVolumeClaim:
      claimName: myclaim
 containers:
 - name: busybox
   image: busybox
   args:
   - sleep
   - "1000000"
   volumeMounts:
     - mountPath: "/mnt/readonly"
       name: readonlyvolume
```