CKAD Practice Exam: State Persistence Solution Guide

Intermediate 20m Bookmark

Check 1: Potential Solution

```
# Create a PersistentVolume named pv in the qq3 Namespace. The
PersistentVolume must be configured with the following settings:
storageClassName: host, 2Gi of storage capacity, Allow a single Node
read-write access, Use a hostPath of /mnt/data
cat << EOF | kubectl -n qq3 apply -f -
apiVersion: v1
kind: PersistentVolume
metadata:
  name: pv
spec:
  storageClassName: host
  capacity:
    storage: 2Gi
  accessModes:
    - ReadWriteOnce
  hostPath:
    path: "/mnt/data"
EOF

# The PersistentVolume must be claimed by a PersistentVolumeClaim named
pvc. The PersistentVolume must request 1Gi of storage capacity.
cat << EOF | kubectl -n qq3 apply -f -
apiVersion: v1
kind: PersistentVolumeClaim
metadata:
  name: pvc
spec:
  storageClassName: host
  accessModes:
    - ReadWriteOnce
  resources:
    requests:
      storage: 1Gi
EOF

# La
must
cat
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```

```
    volumes:
      - name: data
        persistentVolumeClaim:
          claimName: pvc
    containers:
      - name: persist
        image: redis
        volumeMounts:
          - mountPath: "/data"
            name: data
EOF
```

Commentary

The Configure a Pod to Use a PersistentVolume for Storage task in the documentation has an example with sample manifest files for each of the resources you need to create. You need to work with manifest files when dealing with volumes so finding good samples in the documentation to start with can save you a lot of time. In this task, the samples have all of the fields that are needed already included. If you needed to use fields that are not in the samples, you may need to consult the Persistent Volumes documentation for other types of PersistentVolumes, search the documentation, or use `kubectl explain` (e.g. `kubectl explain persistentvolume.spec`).

Content to review

- Mastering Kubernetes Pod Configuration: Persistent Data - Using Persistent Data with Pods

Suggested documentation bookmark(s)

- Persistent Volumes
- Configure a Pod to Use a PersistentVolume for Storage

Check 2: Potential Solution


```
# Up
name
the
```

```
metadata:
  labels:
    env: prod
  name: logger
  namespace: blah
spec:
  containers:
  - image: bash
    name: c1
    command: ["/usr/local/bin/bash", "-c"]
    args:
     - ifconfig > /var/log/blah/data;
       sleep 3600;
    volumeMounts:
    - mountPath: /var/log/blah
      name: vol1
  - image: bash
    name: c2
    command: ["/usr/local/bin/bash", "-c"]
    args:
     - sleep 3600;
    volumeMounts:
    - mountPath: /var/log/blah
      name: vol1
  volumes:
  - name: vol1
    hostPath:
      path: /tmp/vol
EOF
```

Commentary

The Configure a Pod to Use a Volume for Storage task in the documentation has an example with a sample manifest file demonstrating how to mount a volume into a container. You need to work with manifest files when dealing with volumes so finding good samples in the documentation to start with can save you a lot of time. In this task, the sample has all of the fields that are needed already included. If you needed to use fields that are not in the samples, you may need to consult the Volumes documentation, and/or use `kubectl explain` (e.g. `kubectl explain pod.spec.volumes`).

Content to review

- Volumes

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