

CKA-存储管理

讲师：老段 RHCE/RHCA/COA/CKA

emptyDir

```
apiVersion: v1
kind: Pod
metadata:
  name: demo
  labels:
    purpose: demonstrate-envvars
spec:
  volumes:
    - name: volume1
      emptyDir: {}
  containers:
    - name: demo1
      image: busybox
      command: ['sh','-c','sleep 5000']
      volumeMounts:
        - mountPath: /xx
          name: volume1

    - name: demo2
      image: busybox
      command: ['sh','-c','sleep 5000']
      volumeMounts:
        - mountPath: /xx
          name: volume1
```

即使不指定emptyDir: {} 默认也是它

类似于docker run -v /xx

```
[root@vms12 ~]# docker exec c1ee4139902b ls /xx
[root@vms12 ~]#
[root@vms12 ~]#
[root@vms12 ~]# docker exec c1ee4139902b touch /xx/test-1
[root@vms12 ~]#
[root@vms12 ~]# docker exec 2632098e32d8 ls /xx
test-1
[root@vms12 ~]#
[root@vms12 ~]#
```

hostPath

```
apiVersion: v1
kind: Pod
metadata:
  name: demo
  labels:
    purpose: demonstrate-envvars
spec:
  volumes:
    - name: volume1
      hostPath:
        path: /zz
  containers:
    - name: demo1
      image: busybox
      command: ['sh','-c','sleep 5000']
      volumeMounts:
        - mountPath: /xx
          name: volume1

    - name: demo2
      image: busybox
      command: ['sh','-c','sleep 5000']
      volumeMounts:
        - mountPath: /xx
          name: volume1
```

```
[root@vms12 ~]# docker exec b247fcc06808 touch /xx/ptest-1
[root@vms12 ~]# docker exec 4f58cf50097b ls /xx
ptest-1
[root@vms12 ~]# ls /zz/
ptest-1
[root@vms12 ~]#
```

类似于 `docker run -v /zz:/zz`

NFS作为存储

apiVersion: v1

kind: Pod

metadata:

labels:

run: nginx

name: nginx

spec:

volumes:

- name: nfs

nfs:

server: 192.168.26.102

path: "/123"

containers:

- image: nginx

name: nginx

volumeMounts:

- name: nfs

mountPath: "/usr/share/nginx/html"

iscsi作为存储

apiVersion: v1

kind: Pod

metadata:

 name: iscsipd

spec:

 containers:

 - name: iscsipd-rw

 image: nginx

 volumeMounts:

 - mountPath: "/mnt/iscsipd"

 name: iscsipd-rw

 volumes:

 - name: iscsipd-rw

 iscsi:

 targetPortal: 192.168.26.102:3260

 iqn: iqn.2018-10.cc.rhce:disk

 lun: 0

 fsType: xfs

 readOnly: false

kubernetes持久性存储

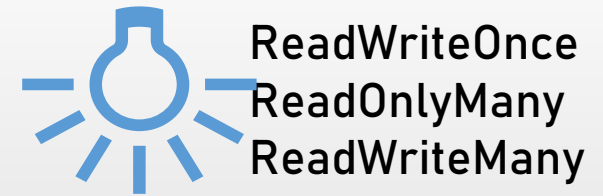
<https://v1-10.docs.kubernetes.io/docs/concepts/storage/persistent-volumes/>

```
apiVersion: v1
kind: PersistentVolume
metadata:
  name: pv0001
spec:
  capacity:
    storage: 5Gi
  volumeMode: Filesystem
  accessModes:
    - ReadWriteOnce

persistentVolumeReclaimPolicy: Recycle
nfs:
  path: /zz
  server: 192.168.26.1
```

```
kind: PersistentVolumeClaim
apiVersion: v1
metadata:
  name: myclaim
spec:
  accessModes:
    - ReadWriteOnce
  volumeMode: Filesystem
  resources:
    requests:
      storage: 5Gi
```

```
cat /etc/exports
/aa *(rw,async,no_root_squash)
```



配置pod使用持久性存储

```
apiVersion: v1
kind: Pod
metadata:
  name: nginx1
  namespace: default
spec:
  volumes:
    - name: mypd
      persistentVolumeClaim:
        claimName: myclaim
  containers:
    - image: nginx
      imagePullPolicy: Always
      name: nginx
      volumeMounts:
        - mountPath: "/mnt"
          name: mypd
      restartPolicy: Always
```

```
apiVersion: apps/v1
kind: Deployment
metadata:
  name: mysql
  labels:
    app: db
spec:
  selector:
    matchLabels:
      app: db
  template:
    metadata:
      labels:
        app: db
    spec:
      volumes:
        - name: mysql-persistent-storage
          persistentVolumeClaim:
            claimName: myclaim
      containers:
        - image: hub.c.163.com/library/mysql:latest
          name: mysql
          env:
            - name: MYSQL_ROOT_PASSWORD
              value: redhat
            - name: MYSQL_DATABASE
              value: blog
          ports:
            - containerPort: 3306
              name: mysql
          volumeMounts:
            - name: mysql-persistent-storage
              mountPath: /var/lib/mysql/
```

