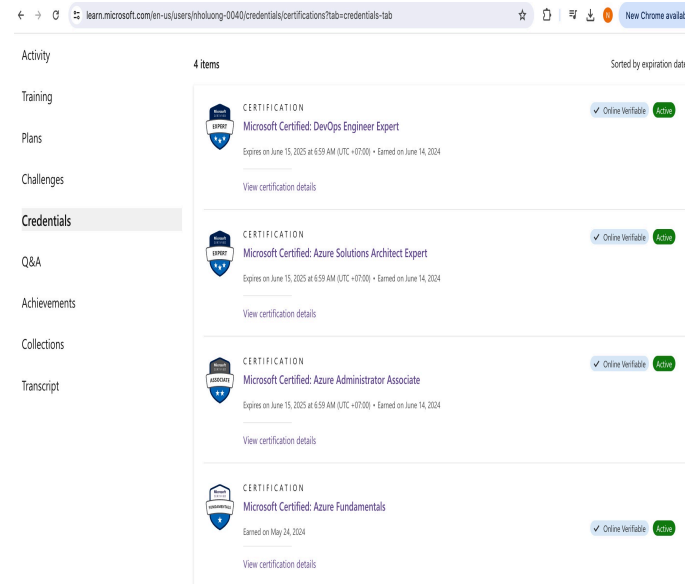
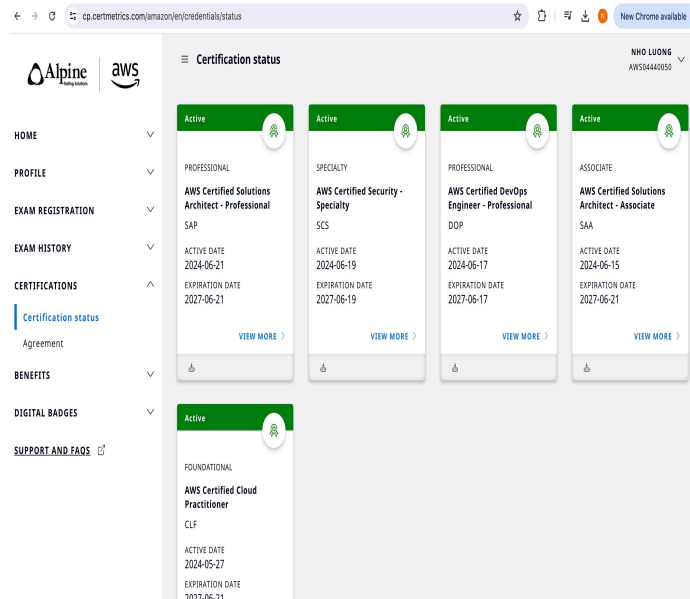


# Kubernetes Orchestration

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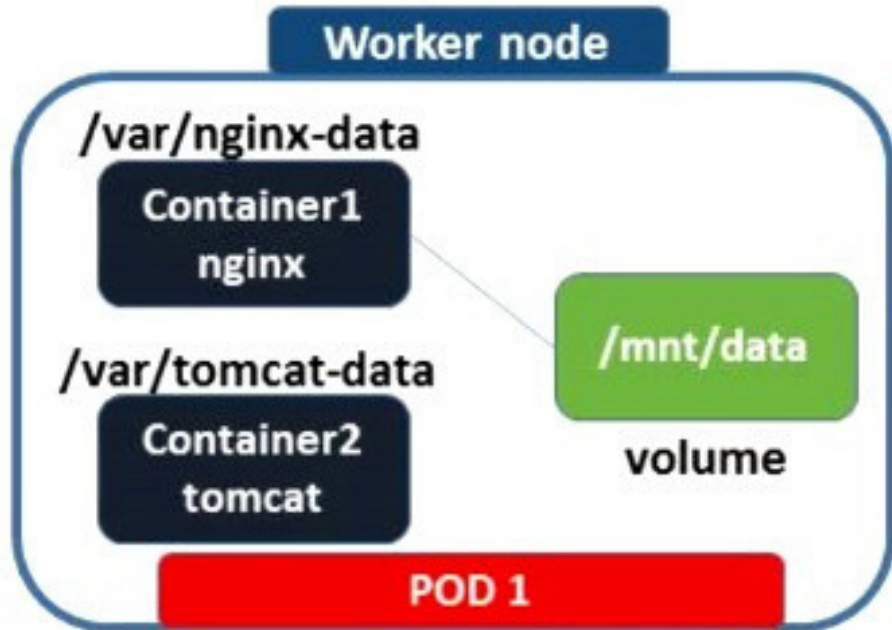
Skill: DevOps Engineer Lead



# Kubernetes-Volume Types

- Local node types –emptyDir,hostPath,local File Sharing types –nfs Storage
- types-fc,iscsi Special purpose types –secrets, git,repo Cloud provider types
- –Vsphere, Cinder, awsEBS,azureDisk,gcepresistentDisk Distributed
- fileSystemTypes-glusterfs, cephfs Special Types –persistent volume,
- persistent volume claims.
- 
-

# 1. How to assign a single volume to specific container in a pod?

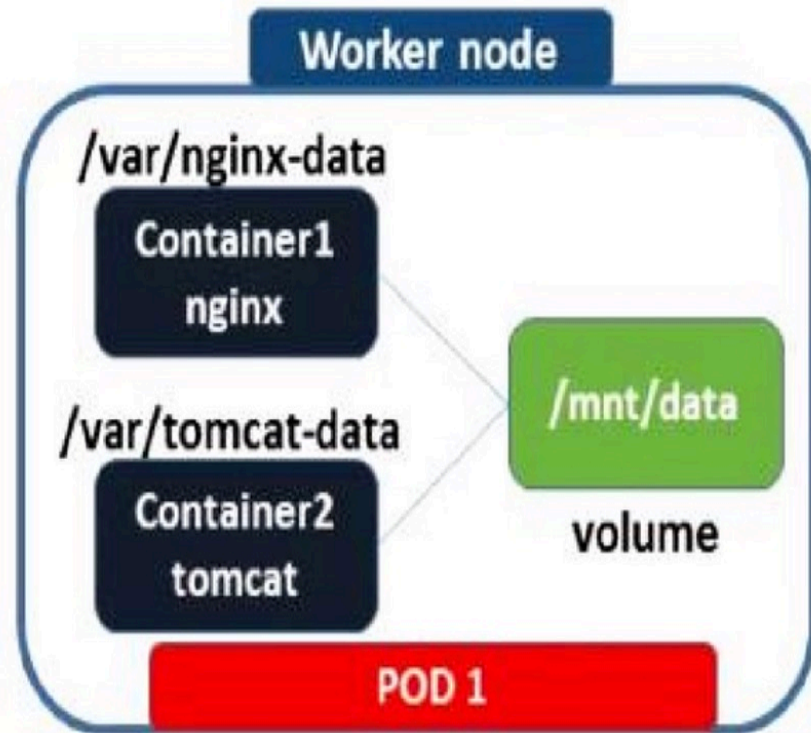


```
spec:
  volumes:
    - name: volume
      hostPath:
        path: /mnt/data

  containers:
    - name: container1-nginx
      image: nginx
      volumeMounts:
        - name: volume
          mountPath: "/var/nginx-data"

    - name: container2-tomcat
      image: tomcat
```

## 2. How to share a same volume to all containers within a pod?

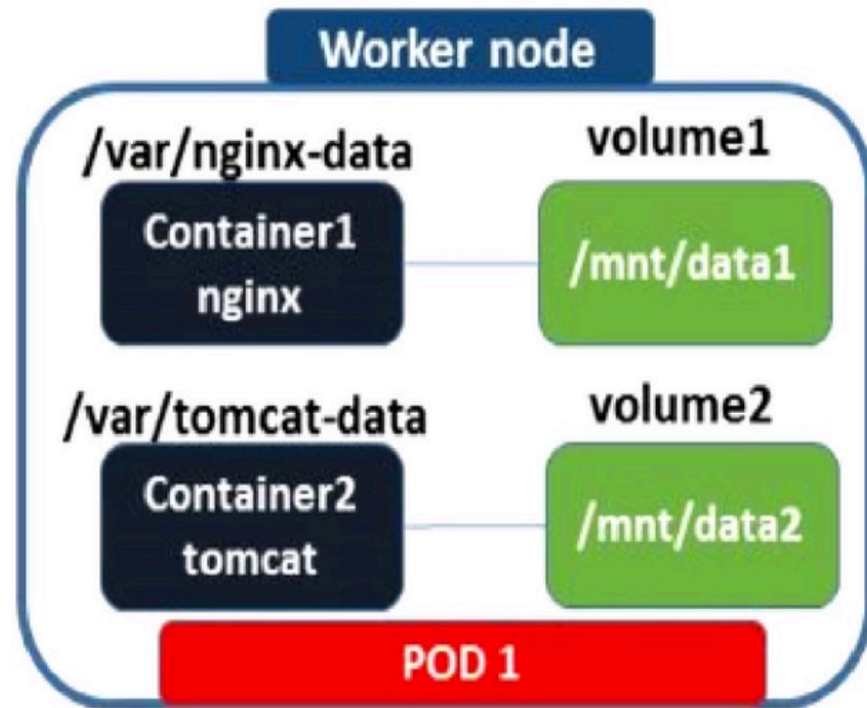


```
spec:
  volumes:
    - name: volume
      hostPath:
        path: /mnt/data

  containers:
    - name: container1-nginx
      image: nginx
      volumeMounts:
        - name: volume
          mountPath: "/var/nginx-data"

    - name: container2-tomcat
      image: tomcat
      volumeMounts:
        - name: volume
          mountPath: "/var/tomcat-data"
```

### 3. How to assign a dedicated volumes to each container in a pod?



```
spec:
  volumes:
    - name: volume1
      hostPath:
        path: /mnt/data1

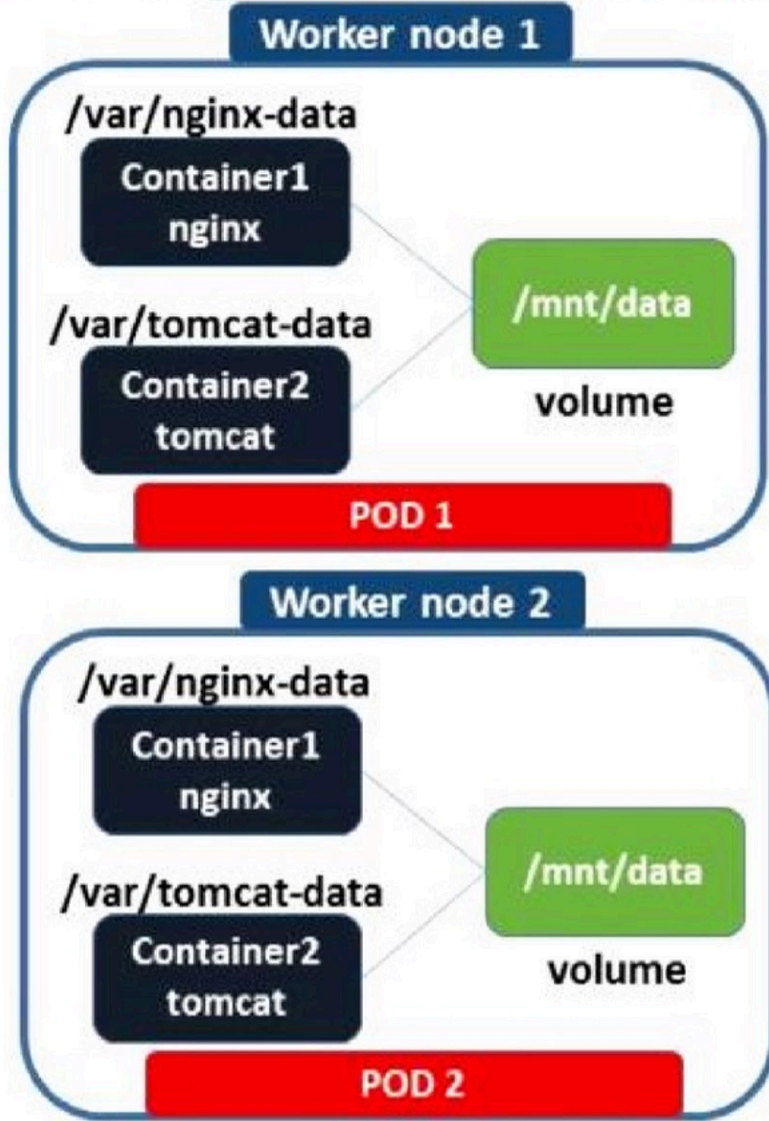
    - name: volume2
      hostPath:
        path: /mnt/data2

  containers:
    - name: container1-nginx
      image: nginx
      volumeMounts:
        - name: volume1
          mountPath: "/var/nginx-data"

    - name: container2-tomcat
      image: tomcat
      volumeMounts:
        - name: volume2
          mountPath: "/var/tomcat-data"
```



## pods running on different worker nodes?



`replicas: 2`

`spec:`

`volumes:`

- `name: volume`
- `hostPath:`
  - `path: /mnt/data`

`containers:`

- `name: container1-nginx`  
`image: nginx`  
`volumeMounts:`
  - `name: volume`  
`mountPath: "/var/nginx-data"`
- `name: container2-tomcat`  
`image: tomcat`  
`volumeMounts:`
  - `name: volume`  
`mountPath: "/var/tomcat-data"`



**Thank You**