**Lesson 4 Demo 7**

**Using Multi-Init Containers**

**Objective:** To create a Pod using multiple Init Containers

**Tools required:** kubeadm, kubectl, kubelet, and etcd

**Prerequisites:** A Kubernetes cluster must be set up (follow steps of Lesson 2 Demo 1)

Steps to be followed:

1. Creating a Pod
2. Creating the first Service
3. Creating the second Service
4. Verifying the Pods state

**Step 1: Creating a Pod**

1. Write the following code in the **init2-container.yaml** file.

**apiVersion: v1**

**kind: Pod**

**metadata:**

**name: myapp-pod**

**labels:**

**app: myapp**

**spec:**

**containers:**

**- name: myapp-container**

**image: registry.access.redhat.com/ubi8/ubi:latest**

**command: ['sh', '-c', 'echo The app is running! && sleep 3600']**

**initContainers:**

**- name: init-myservice**

**image: registry.access.redhat.com/ubi8/ubi:latest**

**command: ['sh', '-c', 'until getent hosts myservice; do echo waiting for myservice; sleep 2; done;']**

**- name: init-mydb**

**image: registry.access.redhat.com/ubi8/ubi:latest**

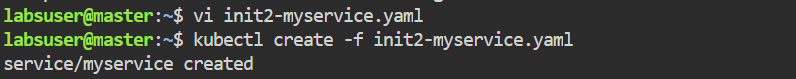
**command: ['sh', '-c', 'until getent hosts mydb; do echo waiting for mydb; sleep 2; done;']**

**Text

Description automatically generated**

1. Create a Pod using the command below:

**kubectl create -f init2-container.yaml**

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1. Verify the Pods state.

**kubectl get pods**

Graphical user interface, text

Description automatically generated

|  |
| --- |
| Note: If both the Services are not created, the Pod will remain in the Init (pending) state. |

**Step 2: Creating the first Service**

1. Write the following code in the **init2-myservice.yaml** file.

**kind: Service**

**apiVersion: v1**

**metadata:**

**name: myservice**

**spec:**

**ports:**

**- protocol: TCP**

**port: 80**

**targetPort: 9376**

Shape

Description automatically generated with medium confidence

1. Run the following command to create the first Service, **myservice**:

**kubectl create -f init2-myservice.yaml**

**Text

Description automatically generated**

The first Service has been created successfully.

**Step 3: Creating the second Service**

1. Write the following code in the **init2-mydb.yaml** file.

**kind: Service**

**apiVersion: v1**

**metadata:**

**name: mydb**

**spec:**

**ports:**

**- protocol: TCP**

**port: 80**

**targetPort: 9377**

Shape

Description automatically generated with medium confidence

1. Execute the following command to create the second Service, **mydb**, which will be used to run the Pod:

**kubectl create -f init2-mydb.yaml**

A screenshot of a computer

Description automatically generated with medium confidence

The second Service has been created successfully.

**Step 4: Verifying the Pods state**

1. To verify the state of the Pod, use the following command:

**kubectl get pods**

A screenshot of a computer

Description automatically generated with medium confidence

After adding both Services, the Pods state changes from pending to running, as seen in the screenshot above.