**Lesson 5 Demo 5**

**Pod Priority and Preemption**

**Objective:** Learn to use a Pod with priority and preemption

**Tools required:** kubectl

**Prerequisites:** kubectl should be installed

**Note 1:** Demo is based on Kubernetes version 1.23

**Note 2:** Execute **sudo kubeadm reset** on all machines, which will clean up the entire cluster

Steps to be followed:

1. Creating a priority class object
2. Describing the created priority classes
3. Creating a Pod priority file
4. Describing the Pod for a verification

**Step 1:** **Creating a priority class object**

1. Create a **priority-class.yaml** file, and write the following code in that file:

**vi priority-class.yaml**

**apiVersion: scheduling.k8s.io/v1**

**kind: PriorityClass**

**metadata:**

**name:** **high-priority**

**value: 1000000**

**globalDefault: false**

**description: "This priority class should be used for ngnix service pods only."**

Text

Description automatically generated with medium confidence

1. Run the following command to create the priority class:

**kubectl apply -****f priority-class.yaml**

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* 1. List the priority classes available by using the following command:

**kubectl get priorityclasses**

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**Step 2: Describing the created priority classes**

1. To describe the created priority classes, use the following command:

**kubectl describe priorityclasses** **high-priority**

A screenshot of a computer

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**Step 3: Creating a Pod priority file**

1. Create a **pod-priority.yaml** file, and write the following code in that file to create a Pod with a priority:

**vi pod-priority.yaml**

**apiVersion: v1**

**kind: Pod**

**metadata:**

**name: nginx**

**labels:**

**env: test**

**spec:**

**containers:**

**- name: nginx**

**image: nginx**

**imagePullPolicy: IfNotPresent**

**priorityClassName:** **high-priority**

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1. Run the following command to create the Pod priority class:

**kubectl apply -f pod-priority.yaml**

* 1. List the Pods available by using the following command:

**kubectl get pods**

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**Step 4:** **Describing the Pod for a verification**

1. Describe the Pod to verify the priority class by using the following command:

**kubectl describe pod nginx**

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| --- |
| **Note:** Verify **Priority Class Name** |