**Lesson 9 Demo 1**

**Troubleshooting Kubernetes Cluster**

**Objective:** Troubleshooting and understanding the problems with a Kubernetes cluster

**Tools required:** Kubernetes set up with a master and two worker nodes

**Prerequisites:** Kubernetes cluster must be set up with kubeadm, kubectl, and kubelet installed and tested. Some Pods, Containers, Services, etc. should be created so that troubleshooting can be performed on the existing cluster and its contents.

Steps to be followed:

1. Obtaining the cluster information
2. Troubleshooting using the dumps
3. Getting help on dumps
4. Getting cluster-info dump of a specific namespace
5. Getting the health status of the cluster component

**Step 1: Obtaining the Cluster Information**

1. For debugging in your cluster, make sure all your nodes are properly registered.

**kubectl get nodes**

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1. Type the following command to obtain the cluster information:

**kubectl cluster-info**

Graphical user interface, text

Description automatically generated

**Step 2: Troubleshooting Using the Dumps**

1. Execute the following command to obtain the cluster dump information:

**kubectl cluster-info dump**

Graphical user interface, text, application

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**Step 3: Getting Help on Dumps**

1. Execute the following command to view the dump options and help page:

**kubectl cluster-info dump –help**

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**Step 4: Getting Cluster-info Dump of a Specific Namespace**

1. The following command provides a dump on a specific namespace:

**kubectl cluster-info -n <namespace> dump**

|  |
| --- |
| **Note:** Replace the **<namespace>** in the command with the namespace for which you need to get the cluster-info dump. For example: - **kubectl cluster-info -n test dump** |

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**Step 5: Getting the Health Status of the Cluster Component**

1. Run the following command to check the health of your cluster components:

**kubectl get componentstatus**

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