**Lesson 6 Demo 2**

**Configuration of DNS for Services and Pods**

**Objective:** Learn to configure DNS for the Kubernetes Services and Pods

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

**Prerequisites:** kubeadm, kubectl, kubelet, and etcd must be installed

Steps to be followed:

1. Configuring the DNS policy
2. Creating the DNS custom configuration

**Step 1: Configuring the DNS policy**

1. Create a configuration file that defines the DNS policy for a Pod using the following command:

**vi dnspolicy.yaml**

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1. Include the following code in the file:

**apiVersion: v1**

**kind: Pod**

**metadata:**

**name: busybox**

**namespace: default**

**spec:**

**containers:**

**- image: busybox:1.28**

**command:**

**- sleep**

**- "3600"**

**imagePullPolicy: IfNotPresent**

**name: busybox**

**restartPolicy: Always**

**hostNetwork: true**

**dnsPolicy: ClusterFirstWithHostNet**

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1. Create a Pod using the following command:

**kubectl apply -f dnspolicy.yaml**

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1. Use the following command to list the newly created Pod:

**kubectl get pods**

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1. Describe the busybox Pod using the following command:

**kubectl describe pod busybox**

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**Step 2: Creating the DNS custom configuration**

1. Create a configuration YAML file using the following command:

**vi dnsconfig.yaml**

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1. Include the following code in the configuration file:

**apiVersion: v1**

**kind: Pod**

**metadata:**

**namespace: default**

**name: dnscustomconfig**

**spec:**

**containers:**

**- name: test**

**image: nginx**

**dnsPolicy: "None"**

**dnsConfig:**

**nameservers:**

**- 1.2.3.4**

**searches:**

**- ns1.svc.cluster-domain.example**

**- my.dns.search.suffix**

**options:**

**- name: ndots**

**value: "2"**

**- name: edns0**

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1. Create the Pod using the following command:

**kubectl apply -f dnsconfig.yam**l

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1. Setup IPv6 using the following command:

**kubectl exec -it dnscustomconfig -- cat /etc/resolv.conf**

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The DNS configuration for Kubernetes Services and Pods has been configured successfully.