**Lesson 6 Demo 6**

**Guidelines for DENY all traffic to an application**

**Objective:** To Deny all traffic to an application

**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 New Pod/Service
2. Verifying network policy

**Step 1: Creating a New Pod/Service**

* 1. Create a­­ nginx Pod with labels app=simplilearn and expose it at port 80

**kubectl run simplilearn --image=nginx --labels="app=simplilearn" --expose --port=80**

Graphical user interface, text

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* 1. Run a temporary Pod and make a request to web Service

**kubectl run --rm -i -t --image=alpine test-$RANDOM -- sh**

**wget -qO-** [**http://simplilearn**](http://simplilearn)

A screenshot of a computer

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* 1. Save the following manifest to web-deny-all.yaml, then apply to the cluster

**vi simplilearn-deny-all.yaml**

**kind: NetworkPolicy**

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

**metadata:**

**name: simplilearn-deny-all**

**spec:**

**podSelector:**

**matchLabels:**

**app: simplilearn**

**ingress: []**

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**Step 2:** **Verifying network policy**

* 1. Create and verify network policy by using the following command:

**kubectl apply -f simplilearn-deny-all.yaml**

**kubectl get networkpolicy**

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* 1. Run a test container again, and try to query web:

**kubectl run --rm -i -t --image=alpine test-$RANDOM -- sh**

**wget -qO- --timeout=2 http://simplilearn**

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|  |
| --- |
| Note: In the above container file is missing the spec. ingress. Therefore, it is not allowing any traffic into the Pod. If there is at least one Network Policy with a rule allowing the traffic, it means the traffic will be routed to the pod regardless of the policies blocking the traffic. |