**Lesson 8 Demo 2**

**Create Workloads in an AKS Cluster**

**Objectives:** To create workloads such as Pods and Deployments in the AKS cluster

**Tools required:** Azure Kubernetes Service

**Prerequisites:** Follow Lesson 8 Demo 1 to set up an AKS cluster

**Steps to be followed:**

1. Creating a namespace
2. Creating a Pod
3. Creating a Deployment

**Step** **1:** **Creating a namespace**

* 1. Graphical user interface, text, application, email

     Description automatically generatedInside the **SL-Cluster**, navigate to **namespaces** under the **Kubernetes resources** section and click on the **add** button:  
       
     Graphical user interface, application, email

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  2. Add the following code to the **YAML** section and click on the **add** button:

***apiVersion: v1***

***kind: Namespace***

***metadata:***

***Graphical user interface, text, application, email

Description automatically generated name: first-namespace***

* 1. Graphical user interface, text, application, email

     Description automatically generatedCheck the newly created **first-namespace** in the **namespaces** section:

**Step 2: Creating a Pod**

1. Inside the **SL-Cluster**, go to **workloads** under the **Kubernetes resources** section, select the **Pods** tab, and click on the **add** button:  
     
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2. Add the following code to the **YAML** section and click on the **add** button:

***apiVersion: v1***

***kind: Pod***

***metadata:***

***name: firstpod***

***namespace: first-namespace***

***spec:***

***containers:***

***- name: firstpod***

***image: busybox***

***command: ['sh', '-c', 'echo "Hello, Kubernetes!" && sleep 3600']***

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1. Graphical user interface

   Description automatically generated with medium confidenceCheck the newly created **firstpod** under the **Pods** tab:

|  |
| --- |
| **Note:** You can also filter the Pods by **pod name**, **label selector**, **status**,and **namespace**. |

**Step 3: Creating a Deployment**

1. A screenshot of a computer

   Description automatically generatedInside the **SL-Cluster**, go to **workloads** under the **Kubernetes resources** section, select the **Deployments** tab, and click on the **add** button:
2. Add the following code to the **YAML** section and click on the **add** button:

***apiVersion: apps/v1***

***kind: Deployment***

***metadata:***

***name: first-deployment***

***namespace: first-namespace***

***labels:***

***app: first-deployment***

***spec:***

***replicas: 3***

***selector:***

***matchLabels:***

***app: first-deployment***

***template:***

***metadata:***

***labels:***

***app: first-deployment***

***spec:***

***containers:***

***- name: first-deployment***

***image: nginx:1.14.2***

***ports:***

***- containerPort: 80***

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1. Graphical user interface, application

   Description automatically generatedCheck the newly created **first-deployment** under the **Deployments** tab:

|  |
| --- |
| **Note:** You can also filter the Deployments by **deployment name**, **label selector**,and **namespace**. |

1. Go to the **Pods** tab again to check the running pods created by the **first-deployment.**

**Graphical user interface, application

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