**Lesson 8 Demo 1**

**Create a Kubernetes Cluster Using AKS**

**Objectives:** To set up the prerequisites and create a Kubernetes cluster using AKS

**Tools required:** Azure Log Analytics workspace and Azure Kubernetes Service

**Prerequisites:** Microsoft Azure account

**Steps to be followed:**

1. Setting up the prerequisites for configuring an AKS cluster
2. Creating a Kubernetes cluster using AKS service

**Step** **1:** **Setting up the prerequisites for configuring an AKS cluster**

1. A picture containing graphical user interface

   Description automatically generatedNavigate to the Azure portal home screen and click on the **subscriptions** tab:
2. Graphical user interface, text, application

   Description automatically generatedOn the subscriptions page, click on **Vocareum-SL-20** under the **subscription name:**
3. Inside the Vocareum-SL-20 subscription, click on the **resource groups** under **settings:**

Graphical user interface, text, application, email

Description automatically generated

1. On the **resource groups** page, click on the resource group name to navigate inside the resource group:

|  |
| --- |
| **Note:** Notice that the resource group name will be different for everyone, but the subscription name is the same i.e., Vocareum-SL-20. |

Graphical user interface, text, application

Description automatically generated

1. Graphical user interface, text, application, email

   Description automatically generatedInside the **resource groups**, click on the **create** button and select **marketplace:**
2. In the search box type **log analytics workspace** and select the **log analytics workspace** resource from the dropdown:
3. Graphical user interface, text, application, email

   Description automatically generatedGraphical user interface, application

   Description automatically generatedOn the log analytics workspace page, click on the **create** button to create this resource:
4. On the create log analytics workspace page, enter the following details, and click on the **review + create** button:

**Name:** **ClusterLogAnalytics**

**Region: West US**

|  |
| --- |
| **Note:** Keep the default value for other fields. |

Graphical user interface, text, application, email

Description automatically generated

1. Graphical user interface, text, application

   Description automatically generatedOnce the validation is complete, click on the **create** button:

1.10 Check the newly created resource on the **resource group** page:  
  
Graphical user interface, text, application, email

Description automatically generated

**Step 2: Creating a Kubernetes cluster using AKS service**

1. Graphical user interface, application

   Description automatically generatedOn create a resource page, select the **Kubernetes service** resource, and click on the **create** button to create this resource:
2. On the create Kubernetes service page, enter the following details under the **basics** tab and click on the **integrations** tab:

**Kubernetes cluster name:** **SL-Cluster**

|  |
| --- |
| **Note:** Keep the default value for all the other fields. Also, make sure the **region** is set as **West US** as all the resources should be in the same region. |

**Graphical user interface, text, application, email

Description automatically generated**

1. Graphical user interface, text, application, email

   Description automatically generatedOn the integrations tab, check whether the **enabled** option for **continuous monitoring** is selectedand make sure the **log analytics workspace** is using **ClusterLogAnalytics**. Click on the **review + create** button.
2. Graphical user interface, text, application

   Description automatically generatedOnce the validation is complete, click on the **create** button and after some time the deployment will be complete.  
     
     
     
   Graphical user interface, text, application

   Description automatically generated
3. Graphical user interface, text, application, email

   Description automatically generatedCheck the resource on the **resource group** page and click on the **SL-Cluster** resource:
4. **Graphical user interface, application, Word

   Description automatically generated**Click on node pool from the left-side panel and check the node pool and nodes tab to verify the nodes in the cluster: