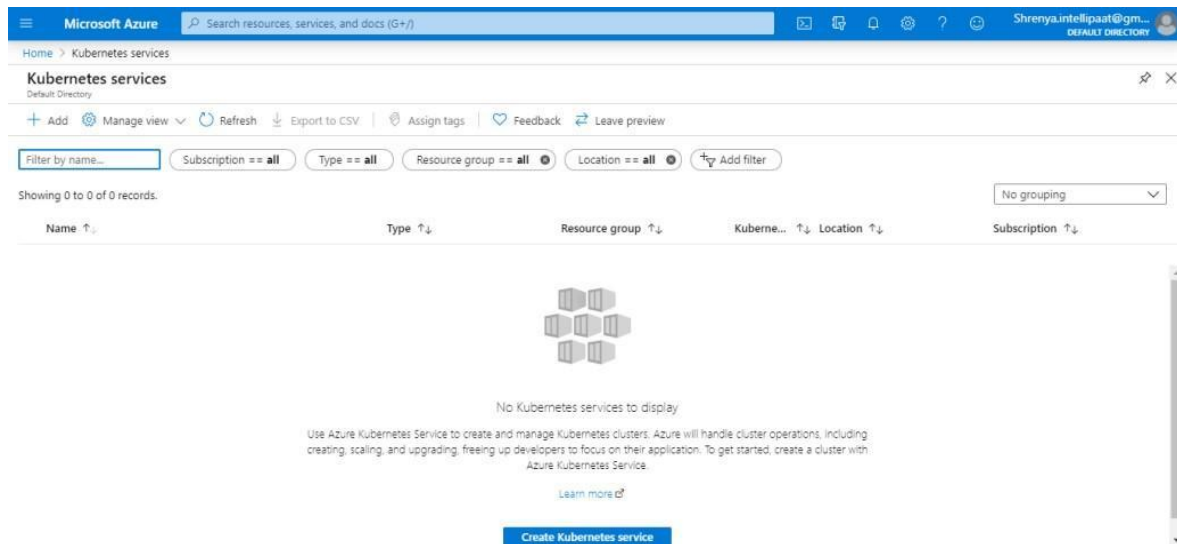


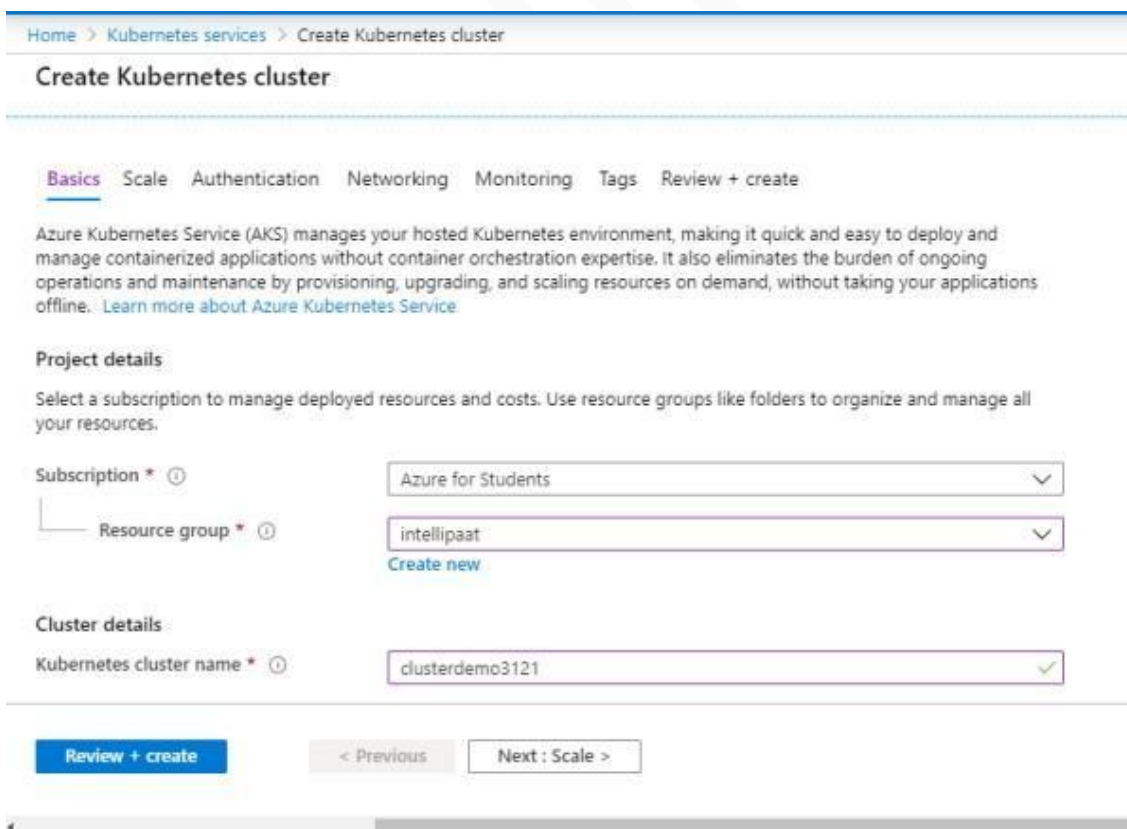


## **Module 5: Hands-On: Configuring Azure Kubernetes Service**

**Step 1:** Go to Azure Portal and click on Kubernetes services. Then click on Add.



**Step 2:** Enter the details such as the name of the resource group and the name of the cluster and then scroll down:



**Step 3:** Select the primary node pool and specify the node count. Then click on Next.

### Create Kubernetes cluster

Region \* ⓘ

(US) Central US ▼

Kubernetes version \* ⓘ

1.14.8 (default) ▼

DNS name prefix \* ⓘ

clusterdemo3121-dns ✓

#### Primary node pool

The number and size of nodes in the primary node pool in your cluster. For production workloads, at least 3 nodes are recommended for resiliency. For development or test workloads, only one node is required. You will not be able to change the node size after cluster creation, but you will be able to change the number of nodes in your cluster after creation. If you would like additional node pools, you will need to enable the "X" feature on the "Scale" tab which will allow you to add more node pools after creating the cluster. [Learn more about node pools in Azure Kubernetes Service](#)

Node size \* ⓘ

Standard DS2 v2

[Change size](#)

Node count \* ⓘ

2

Review + create

< Previous

Next : Scale >

**Step 4:** Enter the scaling details. You can enable or disable Virtual nodes or VM scale sets. Then click on Next. Enter the authentication details. Then click on Next: Networking

### Create Kubernetes cluster

[Basics](#) [Scale](#) [Authentication](#) [Networking](#) [Monitoring](#) [Tags](#) [Review + create](#)

The **cluster infrastructure** service principal is used by the Kubernetes cluster to manage cloud resources attached to the cluster. [Learn more about service principals in AKS](#)

**Kubernetes authentication and authorization** is used by the Kubernetes cluster to control user access to the cluster as well as what the user may do once authenticated. [Learn more about Kubernetes authentication](#)

#### Cluster infrastructure

Service principal \* ⓘ

(new) default service principal

[Configure service principal](#)

#### Kubernetes authentication and authorization

Enable RBAC ⓘ

No

Yes

[Review + create](#)

[< Previous](#)

[Next : Networking >](#)

**Step 5:** Enter the networking details for the cluster and click on Next: Monitoring

---

### Create Kubernetes cluster

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Basics Scale Authentication Networking Monitoring Tags Review + create

You can change networking settings for your cluster, including enabling HTTP application routing and configuring your network using either the 'Basic' or 'Advanced' options:

- **'Basic'** networking creates a new VNet for your cluster using default values.
- **'Advanced'** networking allows clusters to use a new or existing VNet with customizable addresses. Application pods are connected directly to the VNet, which allows for native integration with VNet features.

[Learn more about networking in Azure Kubernetes Service](#)

Private cluster ⓘ	<input type="radio"/> Enabled <input checked="" type="radio"/> Disabled
HTTP application routing ⓘ	<input type="radio"/> Yes <input checked="" type="radio"/> No
Load balancer ⓘ	Standard
Network configuration ⓘ	<input checked="" type="radio"/> Basic <input type="radio"/> Advanced

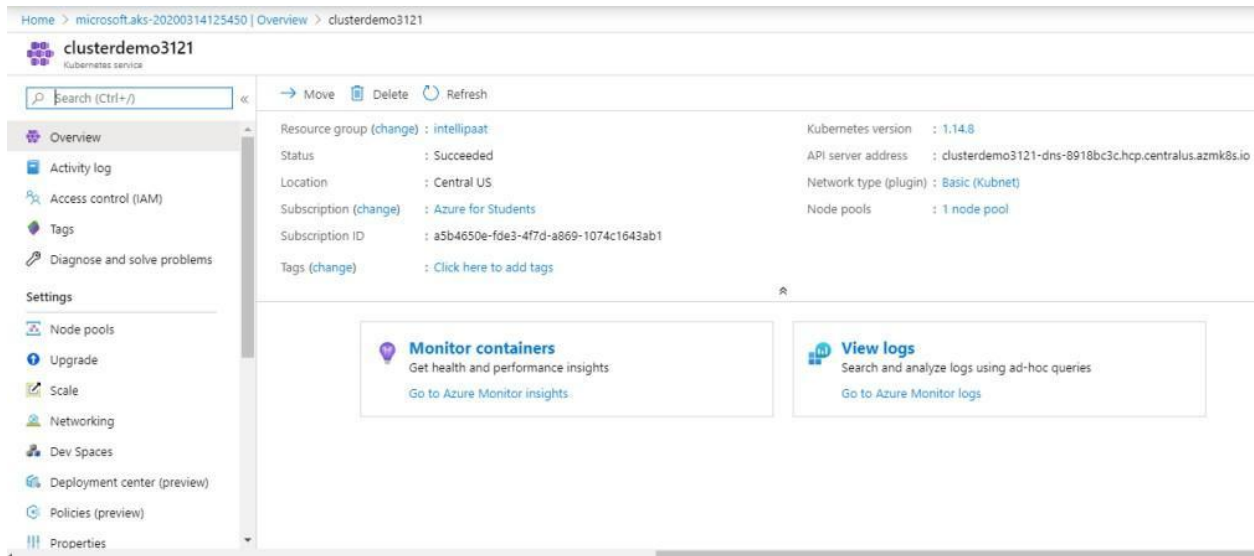
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Review + create

< Previous

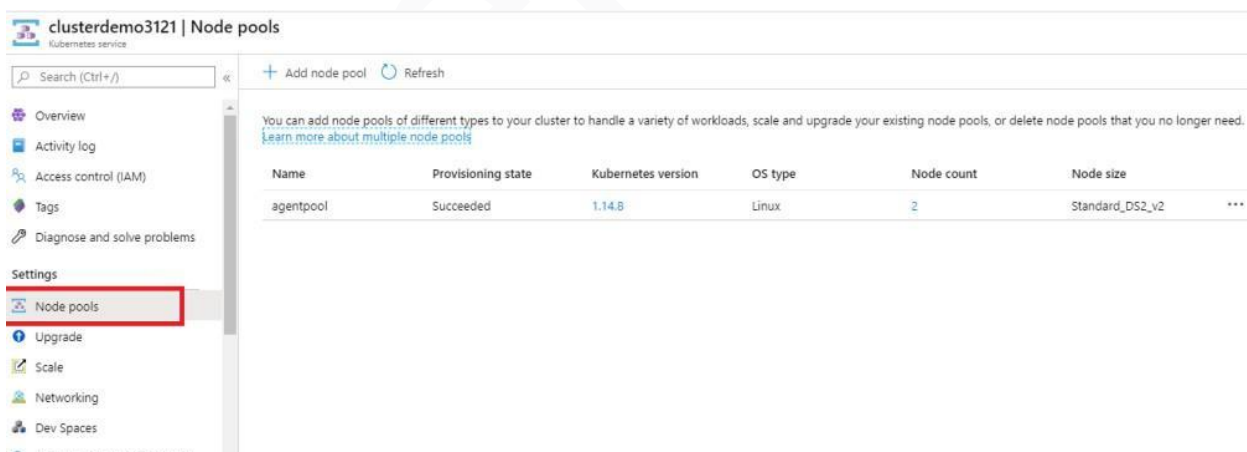
Next : Monitoring >

**Step 6:** Enter the details for monitoring the cluster and then click on Review + Create. Once the resource has been deployed, click on Go to the resource



The screenshot shows the Azure portal interface for a Kubernetes cluster named 'clusterdemo3121'. The left sidebar contains navigation options like Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Settings, Node pools, Upgrade, Scale, Networking, Dev Spaces, Deployment center (preview), Policies (preview), and Properties. The main content area displays cluster details: Resource group (intellipaat), Status (Succeeded), Location (Central US), Subscription (Azure for Students), Subscription ID (a5b4650e-fde3-4f7d-a869-1074c1643ab1), and Tags. It also shows the Kubernetes version (1.14.8), API server address, Network type (Basic (Kubnet)), and Node pools (1 node pool). Two action boxes are visible: 'Monitor containers' and 'View logs'.

**Step 7:** Click on Node pools in the sidebar to manage your node pool and add another one apart from the primary one



The screenshot shows the 'Node pools' page for the cluster 'clusterdemo3121'. The left sidebar is the same as in the previous screenshot, but 'Node pools' is highlighted. The main content area has a '+ Add node pool' button and a 'Refresh' button. Below this, there is a table listing the existing node pools. The table has columns: Name, Provisioning state, Kubernetes version, OS type, Node count, and Node size. One node pool named 'agentpool' is listed with a provisioning state of 'Succeeded', Kubernetes version 1.14.8, OS type Linux, 2 nodes, and size Standard\_DS2\_v2.

Name	Provisioning state	Kubernetes version	OS type	Node count	Node size
agentpool	Succeeded	1.14.8	Linux	2	Standard_DS2_v2