02- Workloads

Lab: Create a Virtual Machine

Scenario
Orders at Adatum Corporation have increased significantly. Currently, the order system runs on on-premises servers which provides other services. You have decided to migrate the order system to dedicated Azure VMs. The Azure VMs must include sufficient storage to accommodate increased volume of orders.

Objectives
After completing this lab, you will be able to:

Create Azure VMs by using the Azure portal.

Connect to Azure VMs.

Attach a data disks to Azure VMs.

Create multidisk volumes on Azure VMs.

Note: The lab steps for this course change frequently due to updates to Microsoft Azure. Microsoft Learning updates the lab steps frequently, so they are not available in this manual. Your instructor will provide you with the lab documentation.

Lab Setup
Estimated Time: 30 minutes

Virtual machine: AZ900-CL1

User name: student

Password: Pa55w.rd1234

Exercise 1: Creating a VM from the Azure portal by using an Azure Marketplace image

Scenario
To prepare for planned deployment, you decide to test the process of creating new Azure VMs from the Azure portal by using an Azure Marketplace images.

The main tasks for this exercise are as follows:

Create a VM

Verify VM creation

Task 1: Create a Global Administrator of your Azure subscription.

From the Azure Portal, click Create a resource, select Compute, and create a new VM by selecting the Windows Server 2016 Datacenter Marketplace image and using the following settings:

Subscription: the name of the target Azure subscription

Resource group: click Create new, in the Name text box, type az900-labrg, and click OK.

Virtual machine name: AZ900-CL1

Region: eastus

Availability options: No infrastructure redundancy required

Image: Windows Server 2016 Datacenter

Size: accept the default size

Username: Student

Password: Pa55w.rd1234

Confirm password: Pa55w.rd1234

Public inbound ports: click Allow selected ports

Select inbound ports: RDP

Already have a Windows license?: No

OS disk type: Standard HDD

Virtual network: accept the default value (this will create a new virtual network)

Subnet: accept the default value (this will create a /24 subnet named default within the IP address space of the virtual network)

Public IP: (new) AZ900-CL1-ip

Public inbound ports: Allow selected ports

Select inbound ports: RDP

Accelerated networking: Off

Place this virtual machine behind an existing load balancing solution?: No

Boot diagnostics: On

OS guest diagnostics: Off

Diagnostics storage account: accept the default value (this will create a new storage account)

System assigned managed identity: Off

Extensions: No extensions

Enable auto-shutdown: Off

Enable backup: Off

Click Review + create, then click Create. Review the Your deployment is underway blade.

Wait for the deployment to complete.

Note: The deployment might take about 5 minutes.

Task 2: Verify VM creation

In the Microsoft Edge window, in the Azure Portal, on the Your deployment is complete blade, click Go to resource.

Click Activity log. Note that the blade allows you to search for activities affecting the VM that you or other admins carried out.

Note: The list of events should include a single entry corresponding to the creation of the virtual machine. Activities represent changes to the state of the VM that you or other admins carried out, such as restarting it.

Click Overview.

Click Resource health.

Verify that there are no known Azure platform problems affecting this VM. Click Refresh if you receive a "Resource health unknown' message.

Close the Resource health blade.

Result: Once you completed this lab, you have deployed a Microsoft Azure VM from the Azure Portal by using a Windows Server 2016 Datacenter Azure Marketplace image, as well as reviewed activity logs and resource health of the VM.

Exercise 2: Verifying the functionality of the VM

Scenario
You successfully deployed your lab Azure VMs. Now you want to examine their properties from the Azure portal and connect to them.

The main tasks for this exercise are as follows:

View the properties of the VM

Connect to a VM

Task 1: View the properties of the VM
On AZ900-CL1, in the Microsoft Edge window, in the Azure Portal, on the AZ900-CL1 blade, click Overview.

On the AZ900-CL1 blade, review the Essentials section. You will notice that the VM has a public IP address, but not a corresponding Domain Name System (DNS) name label. In addition, the Connect button will be enabled.

Click Properties.

Notice that the VM also has a private IP address and the VM agent with a status of Ready.

Task 2: Connect to a VM
In the Microsoft Edge window, in the Azure Portal, from the AZ900-CL1 blade, establish an RDP connection to the AZ900-CL1 VM by using the following credentials:

User name: Student

Password: Pa55w.rd1234

Wait until the connection is successfully established.

Result: Once you completed this exercise, you have viewed properties of an Azure VM from the Azure portal and connected to the Azure VM by using Remote Desktop Protocol (RDP).

Exercise 3: Configuring storage of a VM

Scenario
Once you connected to your Azure VMs, you want to test creating multidisk volumes by attaching data disks then configuring them from the operating system that runs within the Azure VMs.

The main tasks for this exercise are as follows:

Attach data disks to an Azure VM

Create a two-disk volume in the Azure VM that runs Windows

Task 1: Attach data disks to an Azure VM
In the Microsoft Edge window, in the Azure Portal, navigate to AZ900-CL1 blade.

From the AZ900-CL1 blade, attach a new disk with the following settings:

Name: AZ900-CL1_DataDisk1

Resource group: AZ900-labrg

Account type: Standard HDD

Source type: None (empty disk)

Size (GiB): 128

Wait until the first disk is provisioned and then set its host caching to Read-only.

From the AZ900-CL1 blade, attach a new disk with the following settings:

Name: AZ900-CL1_DataDisk2

Resource group: AZ900-labrg

Account type: Standard HDD

Source type: None (empty disk)

Size (GiB): 128

Wait until the second is provisioned and then set its host caching to Read-only.

Save your changes.

Task 2: Create a two-disk volume in the Azure VM that runs Windows
On MIA-CL1, switch to the Remote Desktop session window. If prompted, on the Networks pane, click No.

While connected to the AZ900-CL1 Azure VM, from the Server Manager window, create a storage pool named StoragePool1, consisting of two newly attached disks.

From the Server Manager window, create a new virtual disk named VirtualDisk1 by using StoragePool1 with the Simple storage layout, the Fixed provisioning type, and the maximum size.

From the Server Manager window, create a new 254 GB volume as drive F formatted with the NTFS file system and a default allocation unit.

From the desktop of, AZ900-CL1 open File Explorer and verify that there is a new drive F with 253 GB of available disk space.

Close the Remote Desktop session to AZ900-CL1.