# Lab Answer Key:  Module 4: Virtual Machines

## Lab 4: Attaching Additional Storage by using the Azure portal

In this lab you will provision and configure additional storage on an Azure virtual machine using Windows Server Storage Spaces.

You must have the following to complete this lab:

* A stable and reliable Internet connection
* An active Microsoft Azure subscription
* Previously completed Module 4, Lab 3

Estimated time for completion: 20 Minutes

### Exercise 1: Configuring Settings on the Virtual Machine

The tasks for this exercise are as follows:

1. Attach additional storage
2. Create a new Storage Space for the disks
3. Reset the lab environment (optional)

#### Task 1: Attach Additional Storage

In this task, you will attach two additional empty disks to the virtual machine.

1. In the Azure portal, in the **LABVM** configuration blade, click **Disks**.
2. Click **Attach new**.
3. Accept the default properties and click **OK** to attach the empty disk.
4. Repeat the same procedure to attach a second disk. In the **LABVM** configuration blade, click **Disks**.
5. Click **Attach new**.
6. Accept the default properties and click **OK** to attach the second empty disk.

#### Task 2: Create a New Storage Space for the Disks

1. If you have not connected yet to the LABVM in the previous lab, click **Overview** in the LABM blade and then click the **Connect** button. Use the following credentials to connect to the virtual machine:

* Login: **demouser**
* Password: **DemoPa$$w0rd**

Once you connected, in the Remote Desktop session window, wait until **Windows Server Manager** opens.

1. From within **Windows Server Manager**, click **File and Storage Services**.
2. Click **Storage Pools**.
3. Right-click the **Primordial** Storage Spaces entry and click **New Storage Pool**.
4. In the **New Storage Pool Wizard**¸ specify the name of the storage pool as **StoragePool1**, select **PhysicalDisk2** and **PhysicalDisk3** to be added to the storage pool, click **Create**, and once the wizard completes, click **Close**.
5. Right-click on the storage space, and click **New Virtual Disk**.
6. For disk name, type **AzureDisk**, and click **Next**.
7. For **Storage Layout** select **Simple**.
8. For the **Provisioning type**, select **Fixed**.
9. Set size to maximum.
10. Click **Create**
11. On the last page of the New **Virtual Disk Wizard**, ensure that the **Create a volume when this wizard closes** checkbox is selected and click **Close**.
12. In the **New Volume Wizard**, accept all the default settings, but if the default drive letter is **E**, change it to **F**. Complete the wizard and click **Close**.

At the end of the lab you should have a new 2 TB volume spread across two disks.

#### Task 3: Reset the lab environment (optional)

Note: To minimize charges associated with running the lab environment, you should consider removing its resources. This is the purpose of this task.

Note: If you want to keep your lab environment in place, then you might want to consider stopping all virtual machines. This will eliminate compute charges associated with keeping these virtual machines online. To ensure that these charges do not accrue, stop the virtual machines from the Azure portal and ensure that they are listed on the Virtual machines blade with the Stopped (deallocated) state (rather than Stopped).

1. In the Azure portal, in the hub menu, click **Resource groups**
2. On the Resource groups blade, click **LabRG**
3. On the **LabRG** blade, click **Delete**
4. On the **Are you sure you want to delete "LabRG?** blade, type **LabRG** in the **TYPE THE RESOURCE GROUP NAME** text box, and click **Delete**
5. On the Resource groups blade, click **LabLinuxRG**
6. On the **LabLinuxRG** blade, click **Delete**
7. On the **Are you sure you want to delete "LabLinuxRG?** blade, type **LabLinuxRG** in the **TYPE THE RESOURCE GROUP NAME** text box, and click **Delete**