**Module 1**

**Getting started with Microsoft Azure**

starts with a general overview of cloud computing, and then focuses on Azure and its services that organizations use most commonly. It describes how to use the Azure portal to access and manage Azure services, and to manage Azure subscription and billing.

**Demonstration: Explore the Azure portal and Marketplace and then Create a Virtual Machine in an Azure Gov region**

1. On the lab computer, on the taskbar, select **Microsoft Edge**.
2. In the URL bar, type the following and press enter: [**https://portal.azure.us**](https://portal.azure.us)
3. in the credential area, enter your full email address and then press **Next**.
4. Enter your **password**.
5. The **Dashboard** loads. Until you create a resource, not there is nothing in the **All resources** pane.
6. In the Console tree, click the **Create resources** *plus* button.
7. In the New blade, under the Popular column, click the Windows Server 2016 Datacenter.
8. In the Create virtual machine, Basics blade, in the Name text box type Demo1–VM.
9. In the VM disk type area, note the options. You can use SSD or HDD. Do not change, but leave as SSD.
10. In the Username text box, type winadmin.
11. In the Password and the Confirm password text boxes, type @Pa55w.rd!!
12. In the Resource group area, ensure the Create new radio button is selected, and then type demo1RG.
13. In the Location area, use the drop-down arrow to see the available regions. You will note that four are listed, as the DOD regions are not available with the Wintellect Government Class description.

Note: The number of regions is subject to change but is current as of this writing. The default Location is USGov Iowa. To find which VM’s are available for each region, use the Products available by region webpage. For example, the D-series VM’s are only available from the USGov Virginia region.

1. Select the USGov Virginia region.
2. Scroll down within the Basics blade and you will see the final item. If you already have a Windows Server 2016 Datacenter license, you can select Yes, and put the Product Key in at this time. If you have an Enterprise Agreement with Microsoft that provides for unlimited Windows Server 2016 Datacenter licenses, by putting in that information here you will not be charged for another license in this subscription. Mention this to the class. However, for the purposes of this demonstration, we will keep the default. Press OK.
3. The Choose a size blade now opens. Review the available sizes. Since we are just demonstrating rather than making a permanent VM, you can choose the top selection, labeled B1s. Highlight it and then click Select.
4. The Settings blade now appears. Note the Network items. The Virtual network will include the name of the previous selected Resource Group and appends the suffix Vnet to it. In our case it shows as (new) Demo1RG-vnet. Then note the Subnet. It uses the default 10.0.0.0/24 masked network. Basically, it is a class A subnet did as a class C. If you want to create additional VM’s in the same Virtual network they will be part of this particular Subnet. Finally Note the Public IP Address. It uses the name of the virtual machine, Demo-VM-ip.
5. You could have previously created a Network Security Group(NSG), which basically sets up particular firewall Allow and Deny rules. It is set by default to Basic, which will use the same Inbound and Outbound rules found in the normal installation of Windows Server. If you choose the Advanced settings it will create an NSG named for the virtual machine where creating, in this case, Demo-VM-nsg. The NSG can then be further configured to restrict or allow various firewall configurations. For this demonstration, we will use the Basic setting. While in Basic, note that you are allowed to select public inbound ports using the drop-down arrow. Select this, and check the boxes marked HTTP and HTTPS. This will allow the browser to receive replies from any web site.
6. The next selection area is the Monitoring area, and the default settings are for the Boot diagnostics to be enabled and for the Guest OS diagnostics to be disabled. Except these defaults.
7. Finally, the last selection area is the Backup area. Once again note by default that the Backup setting is disabled.
8. Click the OK button at the bottom of this blade.
9. The Create virtual machine functionality Summary blade then appears. It goes through a validation process. When you receive the Validation passed notification, click the OK button at the bottom of the blade.
10. Your automatically then returned to the Dashboard. In the upper right area of the Dashboard you should see a text box stating that the virtual machine is being deployed. After some time, the deployment should succeed and this virtual machine will appear in the Resources area of the dashboard, along with the other resources you created for the virtual machine, such as the Resource Group, the Virtual network, and other resources. Also note in the top menu bar under the Bell icon which is the notifications area, you will see a blue line continuously moving from left to right. This lets you know VM is still in the deploying phase. It is possible that the deployment fails. If it happens, you will be presented with text explaining why it failed. Depending on the failure you can then try again to deploy the virtual machine disk or you simply correct any errors and try again.
11. Once a deployment is finished, review the items in the All resources pane of the Dashboard. When you created the VM the process unenumerated some of these resources, but not all. For example, it created a Storage account and a Disk. Both of these are needed for the virtual machine but you don’t have to specifically select them, in other words there simply created as part of the process of creating a VM.
12. This concludes the demonstration. For the time being leave all the created resources available. At the end of the module, they will be deleted with a script will run.

Before the Lab starts, demonstrate the deletion of what was made during this demonstration, as follows:

1. Sign in to you Azure Government Subscription.
2. In the console tree, select Resource groups.
3. In the Resource groups blade, under the Name column, you will see the resource group you created, in this case Demo1RG.
4. To the far right of this row you will see three ellipses which opens the context menu. Click the ellipses and select Delete resource group.
5. A new blade will open named Are you sure you want to delete “Demo1RG”? And below that a text box that says Type the resource group name. Type in the text box Demo1RG, and at the bottom of the blade click the Delete button.
6. You will get a pop-up deployment window that states the resource group is being deleted (note that this small window may disappear. It does not mean that it is stopped deleting or that the deleting is finished. It is just a temporary pop-up window.). As it deletes you will see the blue bar scrolling across the notification area (the Bell icon).
7. You can return to the main Dashboard at any time. In the All resources pane, click the Refresh hyperlink to see the various resources being deleted. After a time, and while clicking Refresh your reach a point when there are no longer any of these resources left in the All resources pane.