Exercise 1

Lab 08 - Manage Virtual Machines Student lab manual

Lab scenario

You were tasked with identifying different options for deploying and configuring Azure virtual machines. First, you need to determine different compute and storage resiliency and scalability options you can implement when using Azure virtual machines. Next, you need to investigate compute and storage resiliency and scalability options that are available when using Azure virtual machine scale sets. You also want to explore the ability to automatically configure virtual machines and virtual machine scale sets by using the Azure Virtual Machine Custom Script extension.

Objectives

In this lab, you will:

- Task 1: Deploy zone-resilient Azure virtual machines by using the Azure portal and an Azure Resource Manager template
- Task 2: Configure Azure virtual machines by using virtual machine extensions
- Task 3: Scale compute and storage for Azure virtual machines
- Task 4: Register the Microsoft.Insights and Microsoft.AlertsManagement resource providers
- Task 5: Deploy zone-resilient Azure virtual machine scale sets by using the Azure portal
- Task 6: Configure Azure virtual machine scale sets by using virtual machine extensions
- Task 7: Scale compute and storage for Azure virtual machine scale sets (optional)

Estimated timing: 50 minutes

Instructions

Exercise 1

Task 1: Deploy zone-resilient Azure virtual machines by using the Azure portal and an Azure Resource Manager template

In this task, you will deploy Azure virtual machines into different availability zones by using the Azure portal and an Azure Resource Manager template.

- 1. Sign in to the Azure portal.
- In the Azure portal, search for and select Virtual machines and, on the Virtual machines blade, click + Add.
- 3. On the **Basics** tab of the **Create a virtual machine** blade, specify the following settings (leave others with their default values):

Setting	Value
Subscription	the name of the Azure subscription you will be using in this lab
Resource group	the name of a new resource group az104-08-rg01
Virtual machine name	az104-08-vm0
Region	select one of the regions that support availability zones and where you can provision Azure virtual machines
Availability options	Availability zone

Setting	Value
Availability zone	1
Image	Windows Server 2019 Datacenter - Gen1
Azure Spot instance	No
Size	Standard D2s v3
Username	Student
Password	Pa55w.rd1234
Public inbound ports	None
Would you like to use an existing Windows Server license?	No

4. Click **Next: Disks >** and, on the **Disks** tab of the **Create a virtual machine** blade, specify the following settings (leave others with their default values):

Setting	Value
OS disk type	Premium SSD
Enable Ultra Disk compatibility	No

- 5. Click **Next: Networking >** and, on the **Networking** tab of the **Create a virtual machine** blade, click **Create new** below the **Virtual network** textbox.
- 6. On the Create virtual network blade, specify the following settings (leave others with their default values):

Setting	Value
Name	az104-08-rg01-vnet
Address range	10.80.0.0/20
Subnet name	subnet0
Subnet range	10.80.0.0/24

7. Click **OK** and, back on the **Networking** tab of the **Create a virtual machine** blade, specify the following settings (leave others with their default values):

Setting	Value
Subnet	subnet0
Public IP	default
NIC network security group	basic
Public inbound Ports	None
Accelerated networking	Off
Place this virtual machine behind an existing load balancing solution?	No

8. Click **Next: Management >** and, on the **Management** tab of the **Create a virtual machine** blade, specify the following settings (leave others with their default values):

Setting	Value	

Enable with custom storage account
accept the default value

- 9. Click **Next: Advanced** >, on the **Advanced** tab of the **Create a virtual machine** blade, review the available settings without modifying any of them, and click **Review** + **Create**.
- 10. On the Review + Create blade, click Create.
- 11. On the deployment blade, click Template.
- 12. Review the template representing the deployment in progress and click **Deploy**.

Note: You will use this option to deploy the second virtual machine with matching configuration except for the availability zone.

13. On the Custom deployment blade, specify the following settings (leave others with their default values):

Setting	Value
Resource group	az104-08-rg01
Network Interface Name	az104-08-vm1-nic1
Public IP Address Name	az104-08-vm1-ip
Virtual Machine Name	az104-08-vm1
Virtual Machine Computer Name	az104-08-vm1
Admin Username	Student
Admin Password	Pa55w.rd1234
Zone	2

Note: You need to modify parameters corresponding to the properties of the distinct resources you are deploying by using the template, including the virtual machine and its network interface.

14. Enable the checkbox I agree to the terms and conditions stated above and click Purchase.

Note: Wait for both deployments to complete before you proceed to the next task. This might take about 5 minutes.

Task 2: Configure Azure virtual machines by using virtual machine extensions

In this task, you will install Windows Server Web Server role on the two Azure virtual machines you deployed in the previous task by using the Custom Script virtual machine extension.

- 1. In the Azure portal, search for and select **Storage accounts** and, on the **Storage accounts** blade, click the entry representing the diagnostics storage account you created in the previous task.
- 2. On the storage account blade, in the **Blob service** section, click **Containers** and then click + **Container**.

3. On the **New container** blade, specify the following settings (leave others with their default values) and click **Create**:

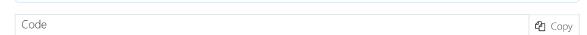
Setting	Value
Name	scripts
Public access level	Private (no anonymous access)

- 4. Back on the storage account blade displaying the list of containers, click scripts.
- 5. On the **scripts** blade, click **Upload**.
- 6. On the **Upload blob** blade, click the folder icon, in the **Open** dialog box, navigate to the **\Allfiles\Labs\08** folder, select az104-08-install_IIS.ps1, click **Open**, and back on the **Upload blob** blade, click **Upload**.
- 7. In the Azure portal, search for and select **Virtual machines** and, on the **Virtual machines** blade, click az104-08-vm0.
- On the az104-08-vm0 virtual machine blade, in the Settings section, click Extensions, and the click + Add.
- 9. On the New resource blade, click Custom Script Extension and then click Create.
- 10. From the Install extension blade, click Browse.
- 11. On the Storage accounts blade, click the name of the storage account into which you uploaded the az104-08-install_IIS.ps1 script, on the Containers blade, click scripts, on the scripts blade, click az104-08-install_IIS.ps1, and then click Select.
- 12. Back on the Install extension blade, click OK.
- 13. In the Azure portal, search for and select **Virtual machines** and, on the **Virtual machines** blade, click az104-08-vm1.
- 14. On the az104-08-vm1 blade, in the Automation section, click Export template.
- 15. On the az104-08-vm1 Export template blade, click Deploy.
- 16. On the **Custom deployment** blade, click **Edit template**.

Note: Disregard the message stating The resource group is in a location that is not supported by on	
	resources in the template. Please choose a different resource group. This is expected and can be ignored in this
	case.

17. On the **Edit template** blade, in the section displaying the content of the template, insert the following code starting with line **20** (directly underneath the "resources": [line):

Note: If you are using a tool that pastes the code in line by line intellisense may add extra brackets causing validation errors. You may want to paste the code into notepad first and then paste it into line 20.



,

```
{
            "type": "Microsoft.Compute/virtualMachines/extensions",
            "name": "az104-08-vm1/customScriptExtension",
            "apiVersion": "2018-06-01",
            "location": "[resourceGroup().location]",
            "depends0n": [
                "az104-08-vm1"
            ],
            "properties": {
                "publisher": "Microsoft.Compute",
                "type": "CustomScriptExtension",
                "typeHandlerVersion": "1.7",
                "autoUpgradeMinorVersion": true,
                "settings": {
                    "commandToExecute": "powershell.exe Install-WindowsFeature -name Web-Server -
IncludeManagementTools && powershell.exe remove-item 'C:\\inetpub\\wwwroot\\iisstart.htm' &&
powershell.exe Add-Content -Path 'C:\\inetpub\\wwwroot\\iisstart.htm' -Value $('Hello World from
' + $env:computername)"
              }
           }
        },
```

- **Note**: This section of the template defines the same Azure virtual machine custom script extension that you deployed earlier to the first virtual machine via Azure PowerShell.
- 1. Click **Save** and, back on the **Custom template** blade, enable the checkbox **I agree to the terms and conditions stated above** and click **Purchase**.
 - Note: Wait for the template deployment to complete. You can monitor its progress from the Extensions blade of the az104-08-vm0 and az104-08-vm1 virtual machines. This should take no more than 3 minutes.
- To verify that the Custom Script extension-based configuration was successful, navigate back on the az104-08-vm1 blade, in the Operations section, click Run command, and, in the list of commands, click RunPowerShellScript.
- 3. On the **Run Command Script** blade, type the following and click **Run** to access the web site hosted on az104-08-vm0:



Task 3: Scale compute and storage for Azure virtual machines

In this task you will scale compute for Azure virtual machines by changing their size and scale their storage by attaching and configuring their data disks.

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- 1. In the Azure portal, search for and select **Virtual machines** and, on the **Virtual machines** blade, click az104-08-vm0.
- 2. On the az104-08-vm0 virtual machine blade, click Size and set the virtual machine size to Standard DS1_v2 and click Resize

Note: Choose another size if Standard DS1_v2 is not available.

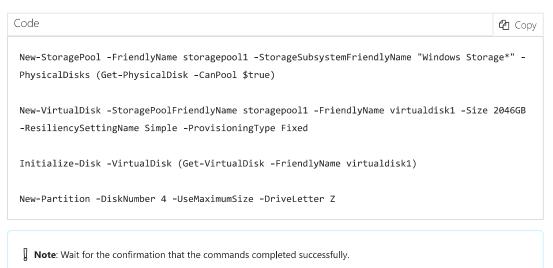
- On the az104-08-vm0 virtual machine blade, click Disks, Under Data disks click + Create and attach a new disk.
- 4. Create a managed disk with the following settings (leave others with their default values):

Setting	Value	
Disk name	az104-08-vm0-datadisk-0	
Storage type	Premium SSD	
Size (GiB	1024	

- 5. Back on the az104-08-vm0 Disks blade, Under Data disks click + Create and attach a new disk.
- 6. Create a managed disk with the following settings (leave others with their default values):

Setting	Value
Disk name	az104-08-vm0-datadisk-1
Storage type	Premium SSD
Size (GiB)	1024 GiB

- 7. Back on the az104-08-vm0 Disks blade, click Save.
- 8. On the az104-08-vm0 blade, in the Operations section, click Run command, and, in the list of commands, click RunPowerShellScript.
- 9. On the **Run Command Script** blade, type the following and click **Run** to create a drive Z: consisting of the two newly attached disks with the simple layout and fixed provisioning:



- 10. In the Azure portal, search for and select **Virtual machines** and, on the **Virtual machines** blade, click az104-08-vm1.
- 11. On the az104-08-vm1 blade, in the Automation section, click Export template.
- 12. On the az104-08-vm1 Export template blade, click Deploy.
- 13. On the Custom deployment blade, click Edit template.

Note: Disregard the message stating The resource group is in a location that is not supported by one or more resources in the template. Please choose a different resource group. This is expected and can be ignored in this case.

14. On the **Edit template** blade, in the section displaying the content of the template, replace the line **30** "vmSize": "Standard_D2s_v3" with the following line):

```
Code

"vmSize": "Standard_DS1_v2"
```

Note: This section of the template defines the same Azure virtual machine size as the one you specified for the first virtual machine via the Azure portal.

15. On the **Edit template** blade, in the section displaying the content of the template, replace line **50** ("dataDisks": [] line) with the following code:

```
Code
                                                                                           ℃ Copy
                   "dataDisks":
                     {
                       "lun": 0,
                       "name": "az104-08-vm1-datadisk0",
                       "diskSizeGB": "1024",
                       "caching": "ReadOnly",
                       "createOption": "Empty"
                     },
                     {
                       "lun": 1,
                       "name": "az104-08-vm1-datadisk1",
                       "diskSizeGB": "1024",
                       "caching": "ReadOnly",
                       "createOption": "Empty"
                     }
                   ]
```

Note: If you are using a tool that pastes the code in line by line intellisense may add extra brackets causing validation errors. You may want to paste the code into notepad first and then paste it into line 49.

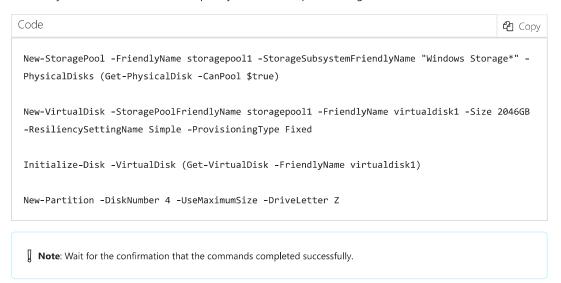
Note: This section of the template creates two managed disks and attaches them to az104-08-vm1, similarly to the storage configuration of the first virtual machine via the Azure portal.

16. Click **Save** and, back on the **Custom template** blade, enable the checkbox **I agree to the terms and conditions stated above** and click **Purchase**.

Note: Wait for the template deployment to complete. You can monitor its progress from the Extensions blade of the az104-08-vm1 virtual machine. This should take no more than 3 minutes.

17. Back on the az104-08-vm1 blade, in the Operations section, click Run command, and, in the list of commands, click RunPowerShellScript.

18. On the **Run Command Script** blade, type the following and click **Run** to create a drive Z: consisting of the two newly attached disks with the simple layout and fixed provisioning:

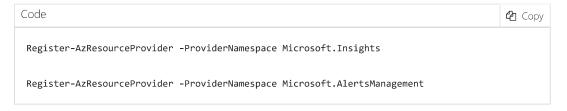


Task 4: Register the Microsoft.Insights and Microsoft.AlertsManagement resource providers

- 1. In the Azure portal, open the Azure Cloud Shell by clicking on the icon in the top right of the Azure Portal.
- 2. If prompted to select either Bash or PowerShell, select PowerShell.

Note: If this is the first time you are starting Cloud Shell and you are presented with the You have no storage mounted message, select the subscription you are using in this lab, and click Create storage.

3. From the Cloud Shell pane, run the following to register the Microsoft.Insights and Microsoft.AlertsManagement resource providers.



Task 5: Deploy zone-resilient Azure virtual machine scale sets by using the Azure portal

In this task, you will deploy Azure virtual machine scale set across availability zones by using the Azure portal.

- 1. In the Azure portal, search for and select **Virtual machine scale sets** and, on the **Virtual machine scale sets** blade, click + **Add**, click + **Virtual machine**.
- 2. On the **Basics** tab of the **Create a virtual machine scale set** blade, specify the following settings (leave others with their default values) and click **Next: Disks >**:

Setting	Value
Subscription	the name of the Azure subscription you are using in this lab
Resource group	the name of a new resource group az104-08-rg02
Virtual machine scale set name	az10408vmss0
Region	select one of the regions that support availability zones and where you can provision Azure virtual machines different from the one you used to deploy virtual machines earlier in this lab
Availability zone	Zones 1, 2, 3
lmage	Windows Server 2019 Datacenter - Gen1

Setting	Value
Azure Spot instance	No
Size	Standard D2s_v3
Username	Student
Password	Pa55w.rd1234
Already have a Windows Server license?	No

Note: For the list of Azure regions which support deployment of Windows virtual machines to availability zones, refer to What are Availability Zones in Azure?

- 3. On the **Disks** tab of the **Create a virtual machine scale set** blade, accept the default values and click **Next**: **Networking** >.
- 4. On the **Networking** tab of the **Create a virtual machine scale set** blade, click the **Create virtual network** link below the **Virtual network** textbox and create a new virtual network with the following settings (leave others with their default values):

Setting	Value
Name	az104-08-rg02-vnet
Address range	10.82.0.0/20
Subnet name	subnet0
Subnet range	10.82.0.0/24

Note: Once you create a new virtual network and return to the Networking tab of the Create a virtual machine scale set blade, the Virtual network value will be automatically set to az104-08-rg02-vnet.

- 5. Back on the **Networking** tab of the **Create a virtual machine scale set** blade, click the **Edit network interface** icon to the right of the network interface entry.
- 6. On the Edit network interface blade, in the NIC network security group section, click Advanced and click Create new under the Configure network security group drop-down list.
- 7. On the **Create network security group** blade, specify the following settings (leave others with their default values):

Setting	Value
Name	az10408vmss0-nsg

8. Click **Add an inbound rule** and add an inbound security rule with the following settings (leave others with their default values):

Destination	Any
Source port ranges	*
Source	Any
Setting	Value

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Setting	Value
Destination port ranges	80
Protocol	ТСР
Action	Allow
Priority	1010
Name	custom-allow-http

- 9. Click Add and, back on the Create network security group blade, click OK.
- 10. Back on the Edit network interface blade, in the Public IP address section, click Enabled and click OK.
- 11. Back on the **Networking** tab of the **Create a virtual machine scale set** blade, under the **Load balancing** section, ensure that the **Use a load balancer** entry is selected and specify the following **Load balancing settings** (leave others with their default values) and click **Next : Scaling >**:

Setting	Value
Load balancing options	Azure load balancer
Select a load balancer	(new) az10408vmss0-lb
Select a backend pool	(new) bepool

12. On the **Scaling** tab of the **Create a virtual machine scale set** blade, specify the following settings (leave others with their default values) and click **Next : Management >**:

Setting	Value
Initial instance count	2
Scaling policy	Manual

13. On the **Management** tab of the **Create a virtual machine scale set** blade, specify the following settings (leave others with their default values):

Setting	Value
Boot diagnostics	Enable with custom storage account
Diagnostics storage account	accept the default value
Note: You will need the name of this storage account in the next task.	

Click Next : Health >:

- 14. On the **Health** tab of the **Create a virtual machine scale set** blade, review the default settings without making any changes and click **Next : Advanced >**.
- 15. On the **Advanced** tab of the **Create a virtual machine scale set** blade, specify the following settings (leave others with their default values) and click **Review + create**.

Setting	Value	
Spreading algorithm	Fixed spreading (not recommended with zones)	
Note: The Max spreading setting is currently not functional.		

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16. On the **Review + create** tab of the **Create a virtual machine scale set** blade, ensure that the validation passed and click **Create**.

Note: Wait for the virtual machine scale set deployment to complete. This should take about 5 minutes.

Task 6: Configure Azure virtual machine scale sets by using virtual machine extensions

In this task, you will install Windows Server Web Server role on the instances of the Azure virtual machine scale set you deployed in the previous task by using the Custom Script virtual machine extension.

- 1. In the Azure portal, search for and select **Storage accounts** and, on the **Storage accounts** blade, click the entry representing the diagnostics storage account you created in the previous task.
- 2. On the storage account blade, in the Blob service section, click Containers and then click + Container.
- 3. On the **New container** blade, specify the following settings (leave others with their default values) and click **Create**:

Setting	Value
Name	scripts
Public access level	Private (no anonymous access)

- 4. Back on the storage account blade displaying the list of containers, click scripts.
- 5. On the **scripts** blade, click **Upload**.
- 6. On the **Upload blob** blade, click the folder icon, in the **Open** dialog box, navigate to the **\Allfiles\Labs\08** folder, select **az104-08-install_IIS.ps1**, click **Open**, and back on the **Upload blob** blade, click **Upload**.
- 7. In the Azure portal, navigate back to the Virtual machine scale sets blade and click az10408vmss0.
- 8. On the az10408vmss0 blade, in the Settings section, click Extensions, and the click + Add.
- 9. On the New resource blade, click Custom Script Extension and then click Create.
- 10. From the **Install extension** blade, **Browse** to and **Select** the **az104-08-install_IIS.ps1** script that was uploaded to the **scripts** container in the storage account earlier in this task, and then click **OK**.
- 11. In the Settings section of the az10408vmss0 blade, click Instances, select the checkboxes next to the two instances of the virtual machine scale set, click Upgrade, and then, when prompted for confirmation, click Yes.
 - \cline{black} Note: Wait for the upgrade to complete before proceeding to the next step.
- 12. In the Azure portal, search for and select **Load balancers** and, in the list of load balancers, click **az10408vmss0-lb**.
- 13. On the **az10408vmss0-lb** blade, note the value of the **Public IP address** assigned to the frontend of the load balancer, open an new browser tab, and navigate to that IP address.
 - Note: Verify that the browser page displays the name of one of the instances of the Azure virtual machine scale set az10408vmss0.

In this task, you will change the size of virtual machine scale set instances, configure their autoscaling settings, and attach disks to them.

- 1. In the Azure portal, search for and select **Virtual machine scale sets** and select the **az10408vmss0** scale set
- 2. In the az10408vmss0 blade, in the Settings section, click Size.
- 3. In the list of available sizes, select Standard DS1_v2 and click Resize.
- 4. In the **Settings** section, click **Instances**, select the checkboxes next to the two instances of the virtual machine scale set, click **Upgrade**, and then, when prompted for confirmation, click **Yes**.
- 5. In the list of instances, click the entry representing the first instance and, on the scale set instance blade, note its **Location** (it should be one of the zones in the target Azure region into which you deployed the Azure virtual machine scale set).
- 6. Return to the **az10408vmss0 Instances** blade, click the entry representing the second instance and, on the scale set instance blade, note its **Location** (it should be one of the other two zones in the target Azure region into which you deployed the Azure virtual machine scale set).
- 7. Return to the az10408vmss0 Instances blade, and in the Settings section, click Scaling.
- 8. On the **az10408vmss0 Scaling** blade, select the **Custom autoscale** option and configure autoscale with the following settings (leave others with their default values):

Setting	Value
Scale mode	Scale based on a metric

9. Click the + Add a rule link and, on the Scale rule blade, specify the following settings (leave others with their default values):

Setting	Value
Metric source	Current resource (az10480vmss0)
Time aggregation	Average
Metric namespace	Virtual Machine Host
Metric name	Network In Total
Operator	Greater than
Metric threshold to trigger scale action	10
Duration (in minutes)	1
Time grain statistic	Average
Operation	Increase count by
Instance count	1
Cool down (minutes)	5

Note: Obviously these values do not represent a realistic configuration, since their purpose is to trigger autoscaling as soon as possible, without extended wait period.

10. Click **Add** and, back on the **az10408vmss0 - Scaling** blade, specify the following settings (leave others with their default values):

Setting Value

Setting	Value
Instance limits Minimum	1
Instance limits Maximum	3
Instance limits Default	1

- 11. Click Save.
- 12. In the Azure portal, open the Azure Cloud Shell by clicking on the icon in the top right of the Azure Portal.
- 13. If prompted to select either Bash or PowerShell, select PowerShell.
- 14. From the Cloud Shell pane, run the following to identify the public IP address of the load balancer in front of the Azure virtual machine scale set az10408vmss0.

```
Code

$rgName = 'az104-08-rg02'

$lbpipName = 'az10408vmss0-ip'

$pip = (Get-AzPublicIpAddress -ResourceGroupName $rgName -Name $lbpipName).IpAddress
```

15. From the Cloud Shell pane, run the following to start and infinite loop that sends the HTTP requests to the web sites hosted on the instances of Azure virtual machine scale set **az10408vmss0**.

```
Code

While ($true) { Invoke-WebRequest -Uri "http://$pip" }
```

16. Minimize the Cloud Shell pane but do not close it, switch back to the **az10408vmss0 - Instances** blade and monitor the number of instances.

Note: You might need to wait a couple of minutes and click Refresh.

- 17. Once the third instance is provisioned, navigate to its blade to determine its **Location** (it should be different than the first two zones you identified earlier in this task.
- 18. Close Cloud Shell pane.
- 19. On the az10408vmss0 blade, in the Settings section, click Disks, click + Create and attach a new disk, and attach a new managed disk with the following settings (leave others with their default values):

Setting	Value
LUN	0
Storage type	Standard HDD
Size (GiB)	32

20. Save the change, in the **Settings** section of the **az10408vmss0** blade, click **Instances**, select the checkboxes next to the two instances of the virtual machine scale set, click **Upgrade**, and then, when prompted for confirmation, click **Yes**.

Note: The disk attached in the previous step is a raw disk. Before it can be used, it is necessary to create a partition, create a filesystem, and mount it. To accomplish this, you will use Azure virtual machine Custom Script extension. First, you will need to remove the existing Custom Script Extension.

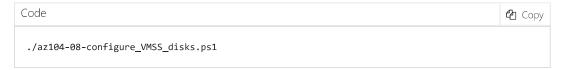
21. In the **Settings** section of the **az10408vmss0** blade, click **Extensions**, click **CustomScriptExtension**, and then click **Uninstall**.

Note: Wait for uninstallation to complete.

- 22. In the Azure portal, open the Azure Cloud Shell by clicking on the icon in the top right of the Azure Portal.
- 23. If prompted to select either Bash or PowerShell, select PowerShell.
- 24. In the toolbar of the Cloud Shell pane, click the **Upload/Download files** icon, in the drop-down menu, click **Upload** and upload the file **\Allfiles\Labs\08\az104-08-configure_VMSS_disks.ps1** into the Cloud Shell home directory.
- 25. From the Cloud Shell pane, run the following to display the content of the script:



26. From the Cloud Shell pane, run the following to excecute the script and configure disks of Azure virtual machine scale set:

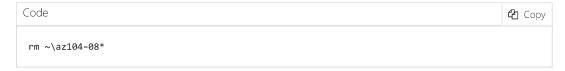


- 27. Close the Cloud Shell pane.
- 28. In the **Settings** section of the **az10408vmss0** blade, click **Instances**, select the checkboxes next to the two instances of the virtual machine scale set, click **Upgrade**, and then, when prompted for confirmation, click **Yes**

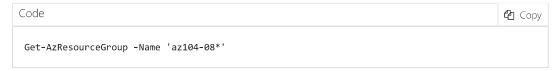
Clean up resources

Note: Remember to remove any newly created Azure resources that you no longer use. Removing unused resources ensures you will not see unexpected charges.

- 1. In the Azure portal, open the PowerShell session within the Cloud Shell pane.
- 2. Remove az104-08-configure_VMSS_disks.ps1 by running the following command:



3. List all resource groups created throughout the labs of this module by running the following command:



4. Delete all resource groups you created throughout the labs of this module by running the following command:

Code Copy

Get-AzResourceGroup -Name 'az104-08*' | Remove-AzResourceGroup -Force -AsJob

Note: The command executes asynchronously (as determined by the -AsJob parameter), so while you will be able to run another PowerShell command immediately afterwards within the same PowerShell session, it will take a few minutes before the resource groups are actually removed.

Review

In this lab, you have:

- Deployed zone-resilient Azure virtual machines by using the Azure portal and an Azure Resource Manager template
- Configured Azure virtual machines by using virtual machine extensions
- Scaled compute and storage for Azure virtual machines
- Deployed zone-reslient Azure virtual machine scale sets by using the Azure portal
- Configured Azure virtual machine scale sets by using virtual machine extensions
- Scaled compute and storage for Azure virtual machine scale sets