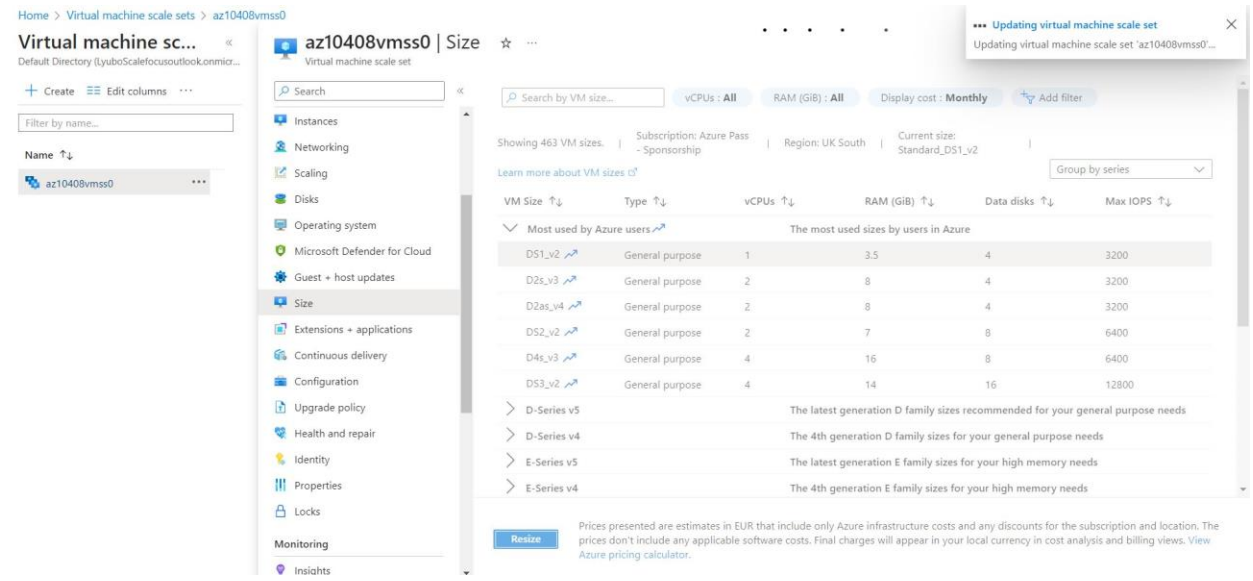
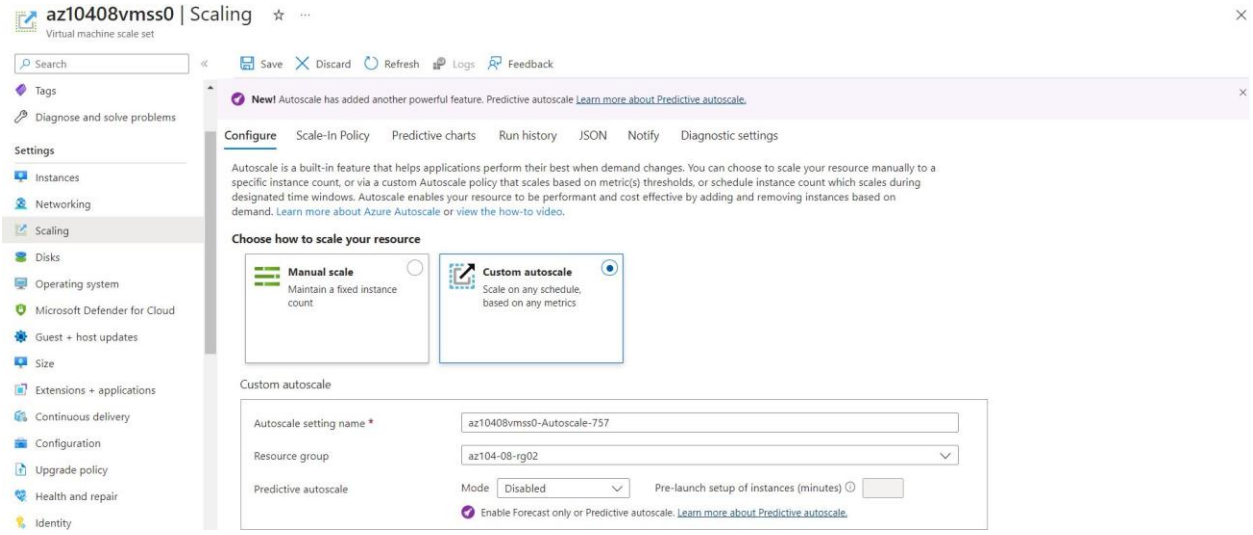
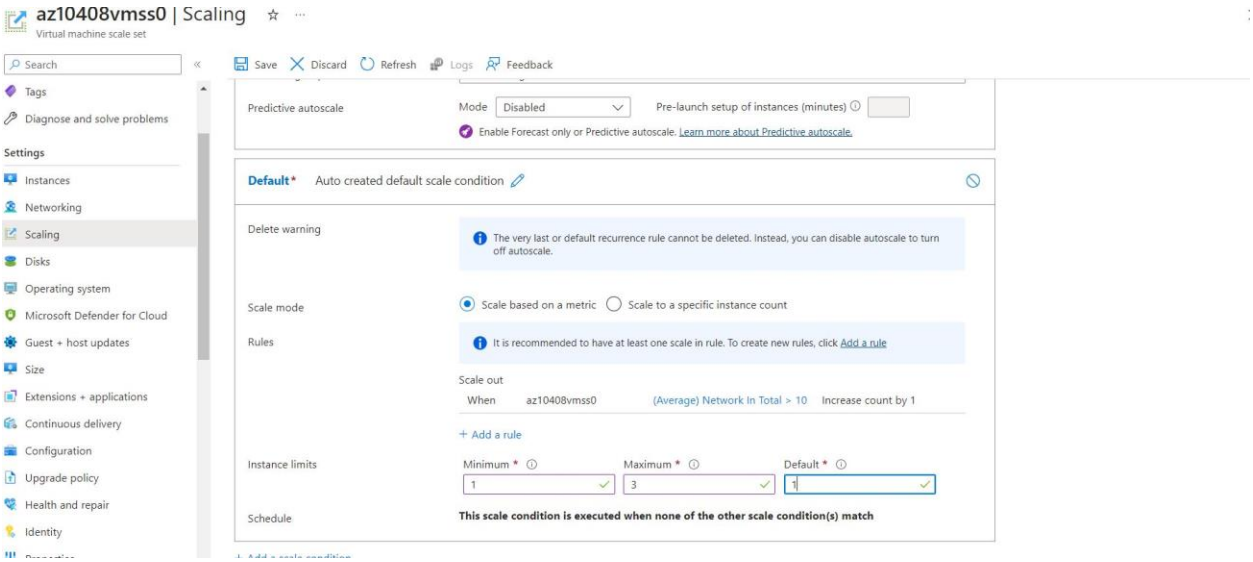
# Lab 08 - Manage Virtual Machines

## Student lab manual

## Task 7: Scale compute and storage for Azure virtual machine scale sets




az10408vmss0 | Scaling
Virtual machine scale set
Search
Save
Discard
Refresh
Logs
Feedback
Tags
Diagnose and solve problems
Settings
Instances
Networking
Scaling
Disks
Operating system
Microsoft Defender for Cloud
Guest + host updates
Size
Extensions + applications
Continuous delivery
Configuration
Upgrade policy
Health and repair
Identity
New! Autoscale has added another powerful feature. Predictive autoscale Learn more about Predictive autoscale.
Configure
Scale-In Policy
Predictive charts
Run history
JSON
Notify
Diagnostic settings
Autoscale is a built-in feature that helps applications perform their best when demand changes. You can choose to scale your resource manually to a specific instance count, or via a custom Autoscale policy that scales based on metric(s) thresholds, or schedule instance count which scales during designated time windows. Autoscale enables your resource to be performant and cost effective by adding and removing instances based on demand. Learn more about Azure Autoscale or view the how-to video.
Choose how to scale your resource
Manual scale
Maintain a fixed instance count
Custom autoscale
Scale on any schedule, based on any metrics
Custom autoscale
Autoscale setting name *
az10408vmss0-Autoscale-757
Resource group
az104-08-rg02
Predictive autoscale
Mode
Disabled
Pre-launch setup of instances (minutes)
Enable Forecast only or Predictive autoscale. Learn more about Predictive autoscale.


az10408vmss0 | Scaling
Virtual machine scale set
Search
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Discard
Refresh
Logs
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Diagnose and solve problems
Settings
Instances
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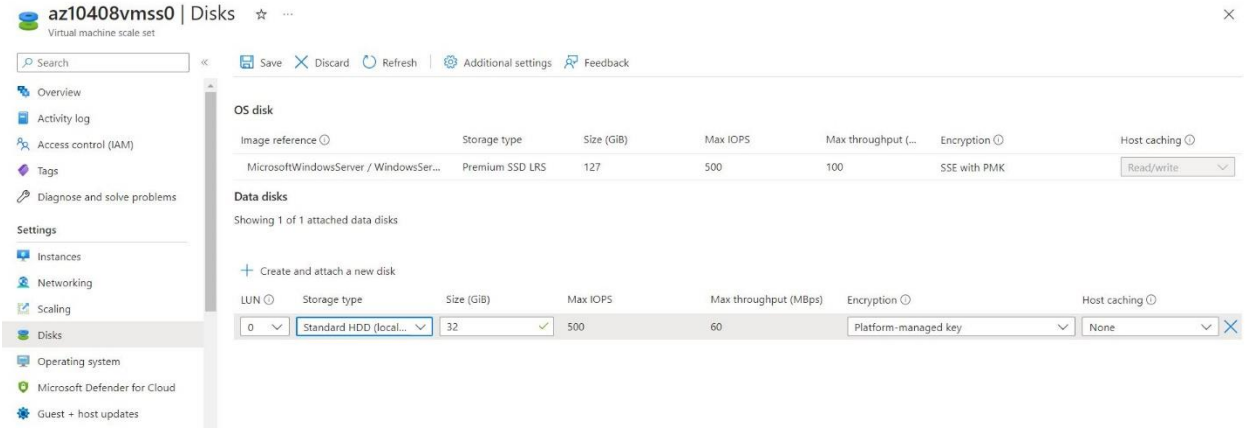
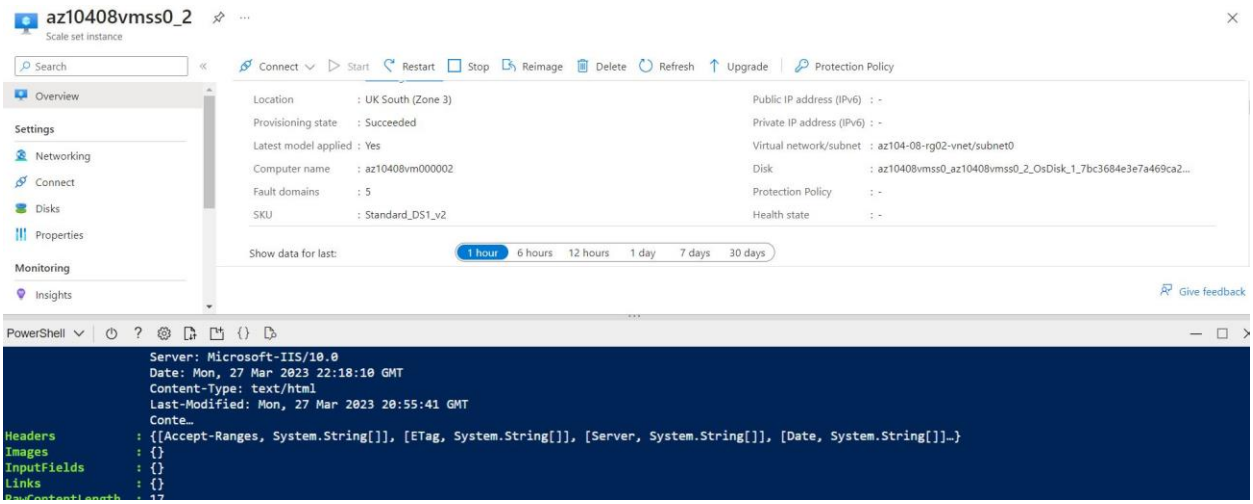
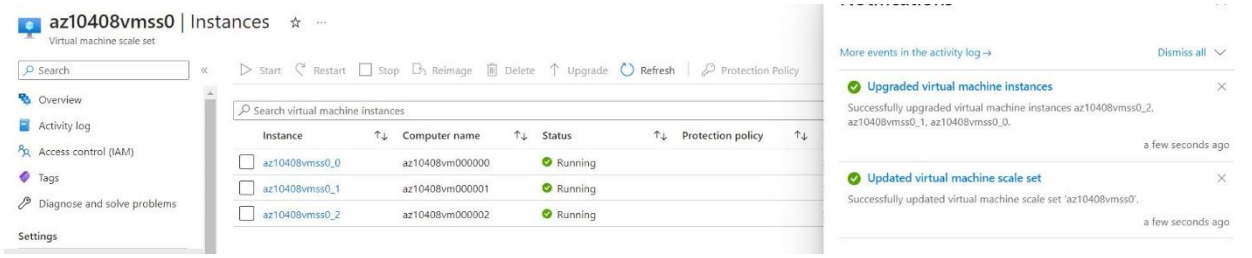
Identity
Predictive autoscale
Mode
Disabled
Pre-launch setup of instances (minutes)
Enable Forecast only or Predictive autoscale. Learn more about Predictive autoscale.
Default *
Auto created default scale condition
Delete warning
The very last or default recurrence rule cannot be deleted. Instead, you can disable autoscale to turn off autoscale.
Scale mode
Scale based on a metric
Scale to a specific instance count
Rules
It is recommended to have at least one scale in rule. To create new rules, click Add a rule
Scale out
When
az10408vmss0
(Average) Network In Total > 10
Increase count by 1
+ Add a rule
Instance limits
Minimum *
Maximum *
Default *
1
3
1
Schedule
This scale condition is executed when none of the other scale condition(s) match


az10408vmss0 | Disks
Virtual machine scale set
Search
Save
Discard
Refresh
Additional settings
Feedback
Overview
Activity log
Access control (IAM)
Tags
Diagnose and solve problems
Settings
Instances
Networking
Scaling
Disks
Operating system
Microsoft Defender for Cloud
Guest + host updates
OS disk
Image reference
Storage type
Size (GiB)
Max IOPS
Max throughput (...
Encryption
Host caching
MicrosoftWindowsServer / WindowsSer...
Premium SSD LRS
127
500
100
SSE with PMK
Read/write
Data disks
Showing 1 of 1 attached data disks
Create and attach a new disk
LUN
Storage type
Size (GiB)
Max IOPS
Max throughput (MBps)
Encryption
Host caching
0
Standard HDD (local...
32
500
60
Platform-managed key
None




```
VERBOSE: Authenticating to Azure ...
VERBOSE: Building your Azure drive ...
PS /home/lyubomir> Set-Location -Path $HOME
PS /home/lyubomir>
PS /home/lyubomir> Get-Content -Path ./az104-08-configure_VMSS_disks.ps1          $rgName = 'az104-08-rg02'
$vmssName = 'az10408vmss0'
$vmss = Get-AzVmss `
        -ResourceGroupName $rgName `
        -VMScaleSetName $vmssName

$publicSettings = @{
        "fileUris" = (,"https://raw.githubusercontent.com/Azure-Samples/compute-automation-configurations/master/prepare_vm_disks.ps1");
        "commandToExecute" = "powershell -ExecutionPolicy Unrestricted -File prepare_vm_disks.ps1"
}

Add-AzVmssExtension -VirtualMachineScaleSet $vmss `
        -Name "customScript" `
        -Publisher "Microsoft.Compute" `
        -Type "CustomScriptExtension" `
        -TypeHandlerVersion 1.8 `
        -Setting $publicSettings

# Update the scale set and apply the Custom Script Extension to the VM instances
Update-AzVmss `
        -ResourceGroupName $rgName `
        -Name $vmssName `
        -VirtualMachineScaleSet $vmss
PS /home/lyubomir>
```

```
PS /home/lyubomir> Get-Content -Path ./az104-08-configure_VMSS_disks.ps1
$rgName = 'az104-08-rg02'
$vmssName = 'az10408vmss0'
$vmss = Get-AzVmss `
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        -VMScaleSetName $vmssName

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        -Type "CustomScriptExtension" `
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        -Setting $publicSettings

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Update-AzVmss `
        -ResourceGroupName $rgName `
        -Name $vmssName `
        -VirtualMachineScaleSet $vmss
PS /home/lyubomir> ./az104-08-configure_VMSS_disks.ps1


ResourceGroupName                       : az104-08-rg02
Sku                                     :
  Name                                  : Standard_DS1_v2
  Tier                                  : Standard
  Capacity                              : 3
UpgradePolicy                           :
```

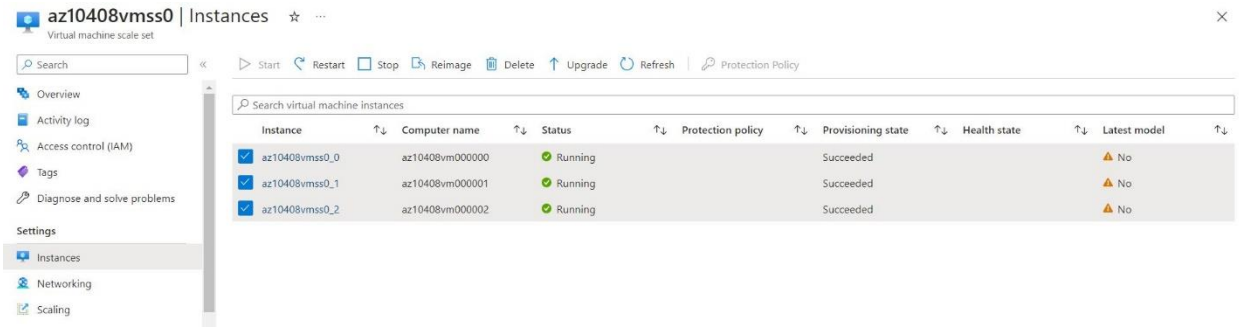


```
VERBOSE: Authenticating to Azure ...
VERBOSE: Building your Azure drive ...
PS /home/lyubomir> rm ~\az104-08*                                                PS /home/lyubomir> Get-AzResourceGroup -Name 'az104-08*'

ResourceGroupName : az104-08-rg02
Location          : uksouth
ProvisioningState : Succeeded
Tags              :
ResourceId        : /subscriptions/3b42ed89-1120-4053-a858-c2baec72c542/resourceGr
                    oups/az104-08-rg02

ResourceGroupName : az104-08-rg01
Location          : eastus
ProvisioningState : Succeeded
Tags              :
ResourceId        : /subscriptions/3b42ed89-1120-4053-a858-c2baec72c542/resourceGr
                    oups/az104-08-rg01


PS /home/lyubomir> Get-AzResourceGroup -Name 'az104-08*' | Remove-AzResourceGroup -Force -AsJob

Id     Name            PSJobTypeName   State         HasMoreData     Location
--     ----            -------------   -----         -----------     --------
2      Long Running O… AzureLongRunni… Running       True            localhost
3      Long Running O… AzureLongRunni… Running       True            localhost

PS /home/lyubomir>
```