Introduction to Cloud Computing

LAB 08

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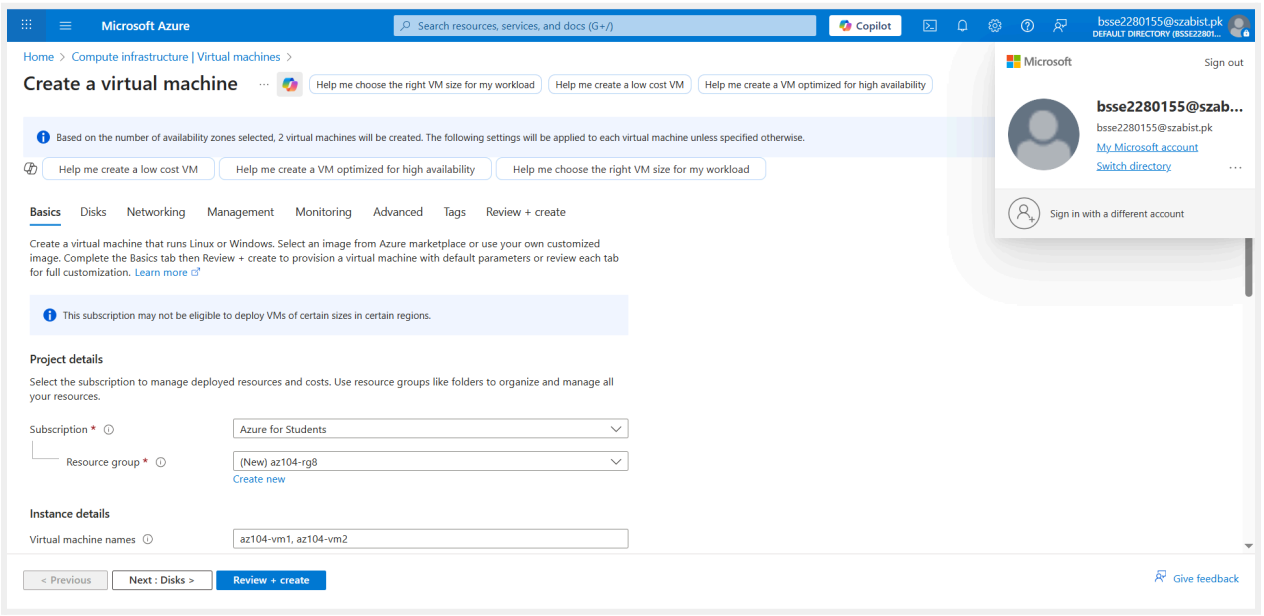
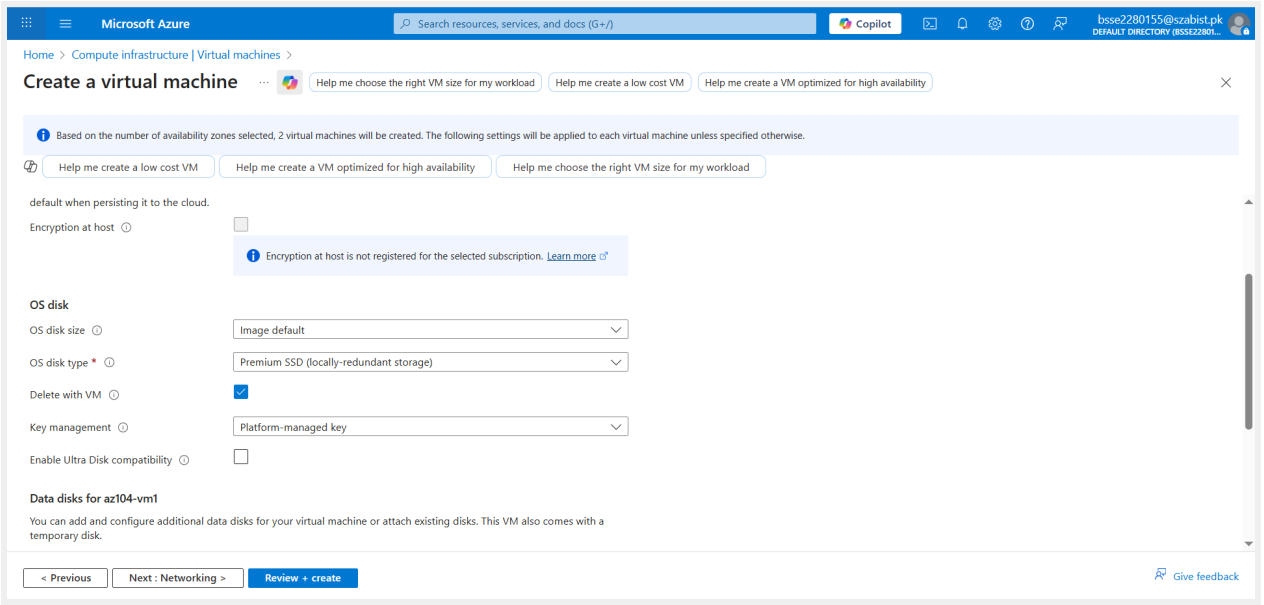
ID: 2280155

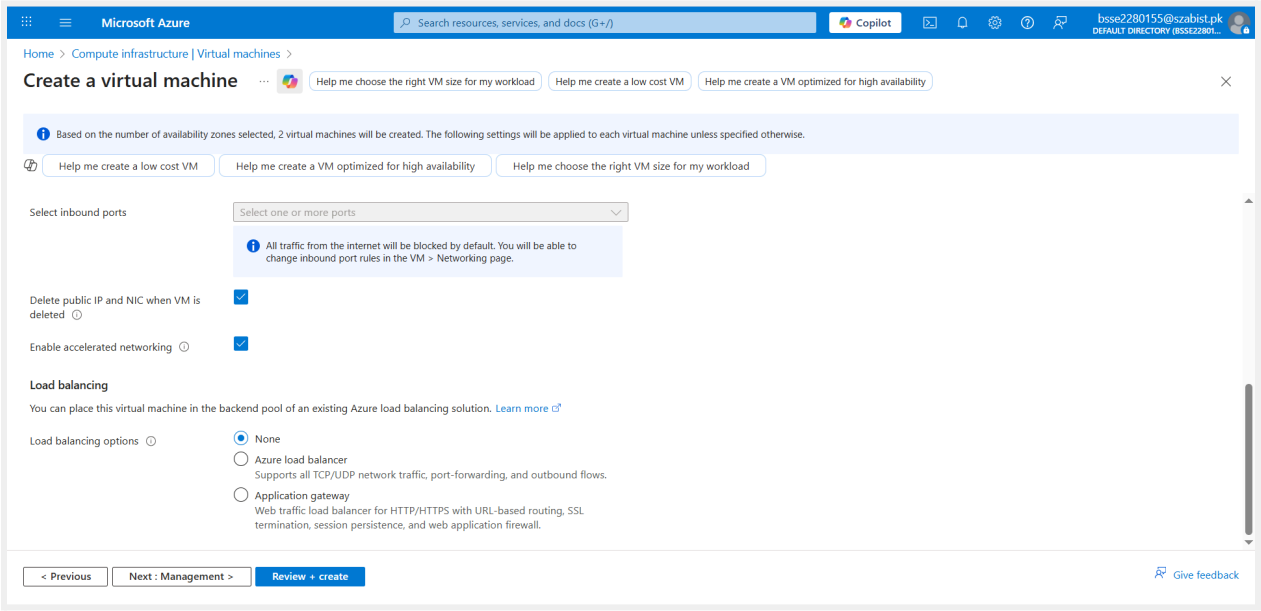
BS-SE 7B

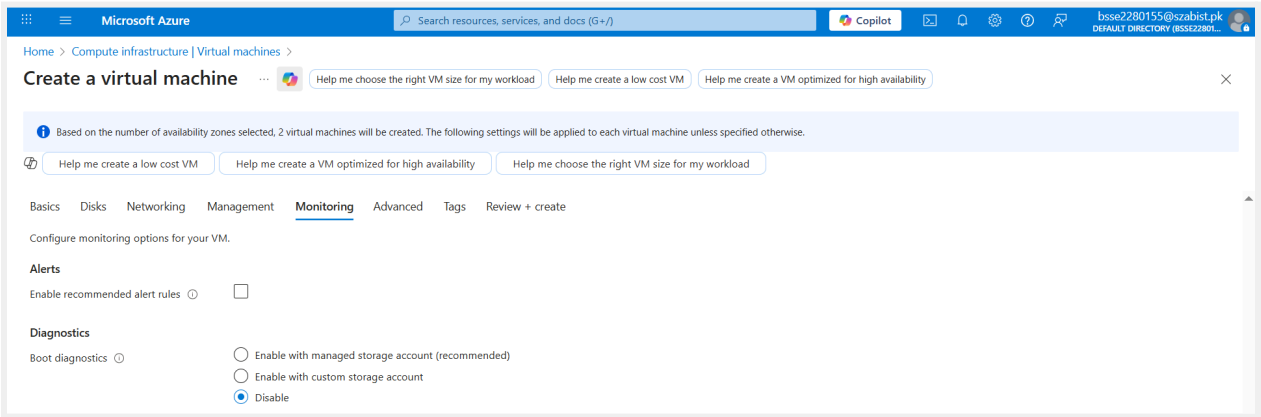
Task 1: Deploy zone-resilient Azure virtual machines by using the Azure portal.

- Search for and select **Virtual machines**. Click **Create**.






Microsoft Azure
Search resources, services, and docs (G+/)
Copilot
bsse2280155@szabist.pk
DEFAULT DIRECTORY (BSSE2280...
Home > Compute infrastructure | Virtual machines >
Create a virtual machine
Help me choose the right VM size for my workload
Help me create a low cost VM
Help me create a VM optimized for high availability
Based on the number of availability zones selected, 2 virtual machines will be created. The following settings will be applied to each virtual machine unless specified otherwise.
Help me create a low cost VM
Help me create a VM optimized for high availability
Help me choose the right VM size for my workload
Select inbound ports
Select one or more ports
All traffic from the internet will be blocked by default. You will be able to change inbound port rules in the VM > Networking page.
Delete public IP and NIC when VM is deleted
Enable accelerated networking
Load balancing
You can place this virtual machine in the backend pool of an existing Azure load balancing solution. Learn more
Load balancing options
None
Azure load balancer
Supports all TCP/UDP network traffic, port-forwarding, and outbound flows.
Application gateway
Web traffic load balancer for HTTP/HTTPS with URL-based routing, SSL termination, session persistence, and web application firewall.
< Previous
Next : Management >
Review + create
Give feedback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Help me create a low cost VM
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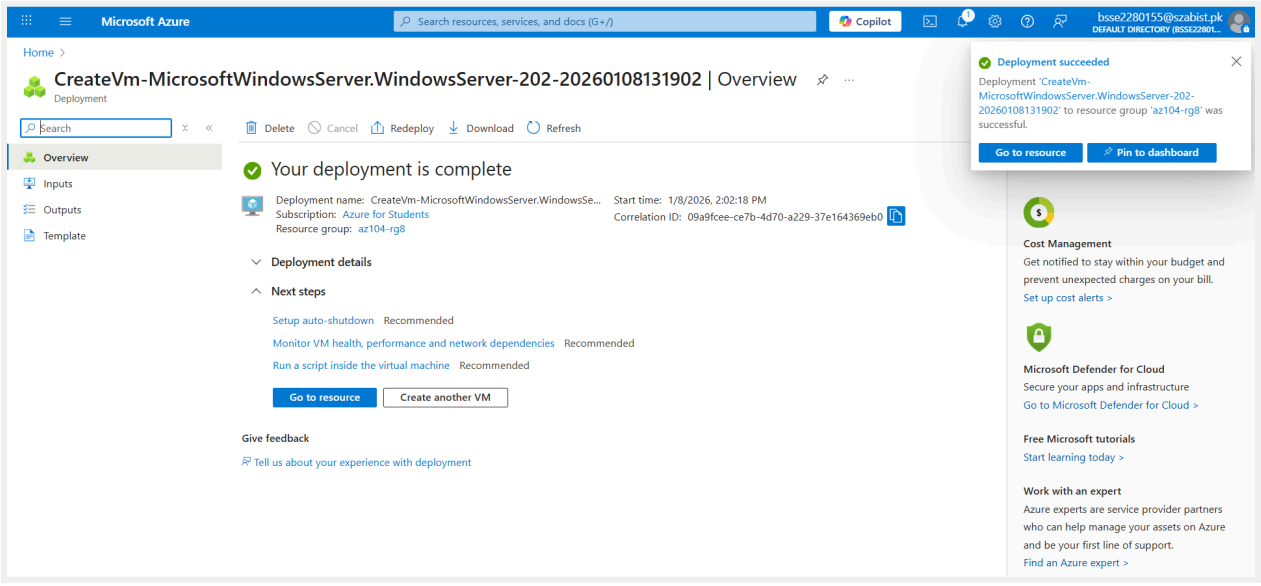
Help me choose the right VM size for my workload
Basics
Disks
Networking
Management
Monitoring
Advanced
Tags
Review + create
Configure monitoring options for your VM.
Alerts
Enable recommended alert rules
Diagnostics
Boot diagnostics
Enable with managed storage account (recommended)
Enable with custom storage account
Disable


Microsoft Azure
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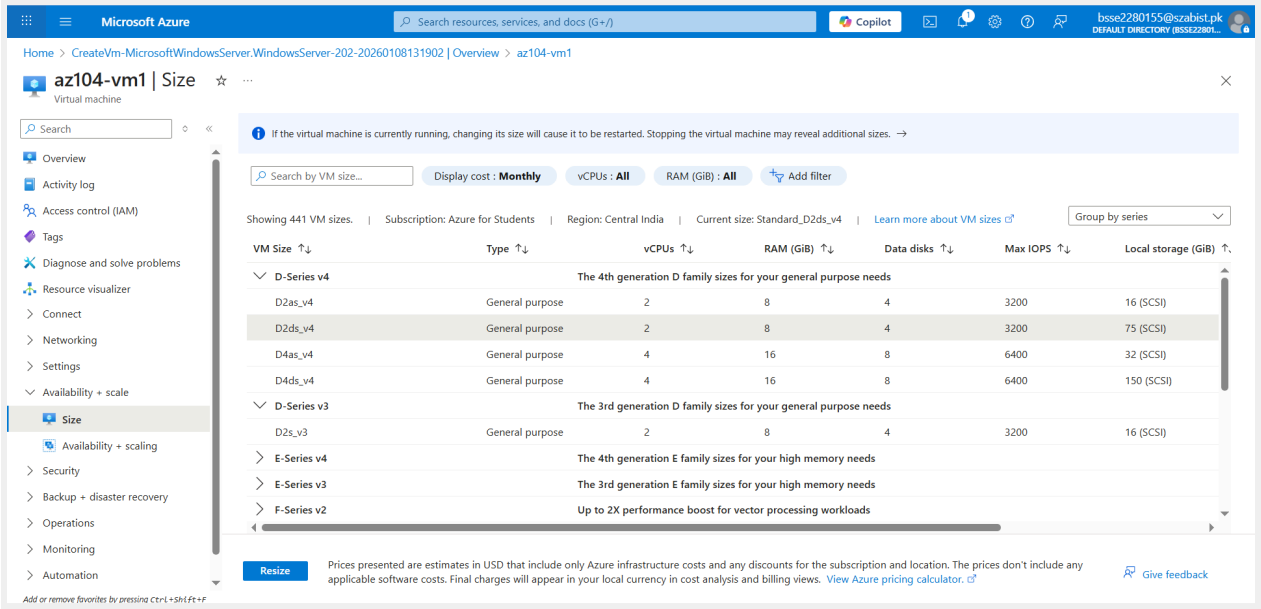
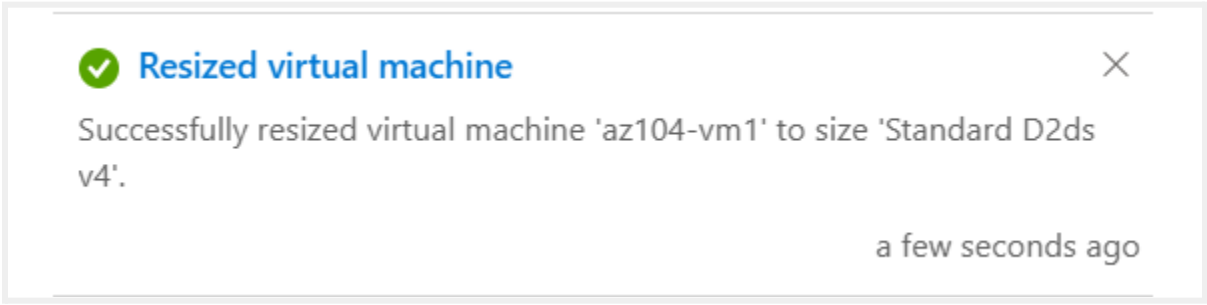
Home >
CreateVm-MicrosoftWindowsServer.WindowsServer-202-20260108131902 | Overview
Deployment
Search
Overview
Inputs
Outputs
Template
Delete
Cancel
Redeploy
Download
Refresh
Your deployment is complete
Deployment name: CreateVm-MicrosoftWindowsServer.WindowsSe...
Subscription: Azure for Students
Resource group: az104-rg8
Start time: 1/8/2026, 2:02:18 PM
Correlation ID: 09a9fcee-ce7b-4d70-a229-37e164369eb0
Deployment details
Next steps
Setup auto-shutdown Recommended
Monitor VM health, performance and network dependencies Recommended
Run a script inside the virtual machine Recommended
Go to resource
Create another VM
Give feedback
Tell us about your experience with deployment
Deployment succeeded
Deployment 'CreateVm-MicrosoftWindowsServer.WindowsServer-202-20260108131902' to resource group 'az104-rg8' was successful.
Go to resource
Pin to dashboard
Cost Management
Get notified to stay within your budget and prevent unexpected charges on your bill.
Set up cost alerts >
Microsoft Defender for Cloud
Secure your apps and infrastructure
Go to Microsoft Defender for Cloud >
Free Microsoft tutorials
Start learning today >
Work with an expert
Azure experts are service provider partners who can help manage your assets on Azure and be your first line of support.
Find an Azure expert >

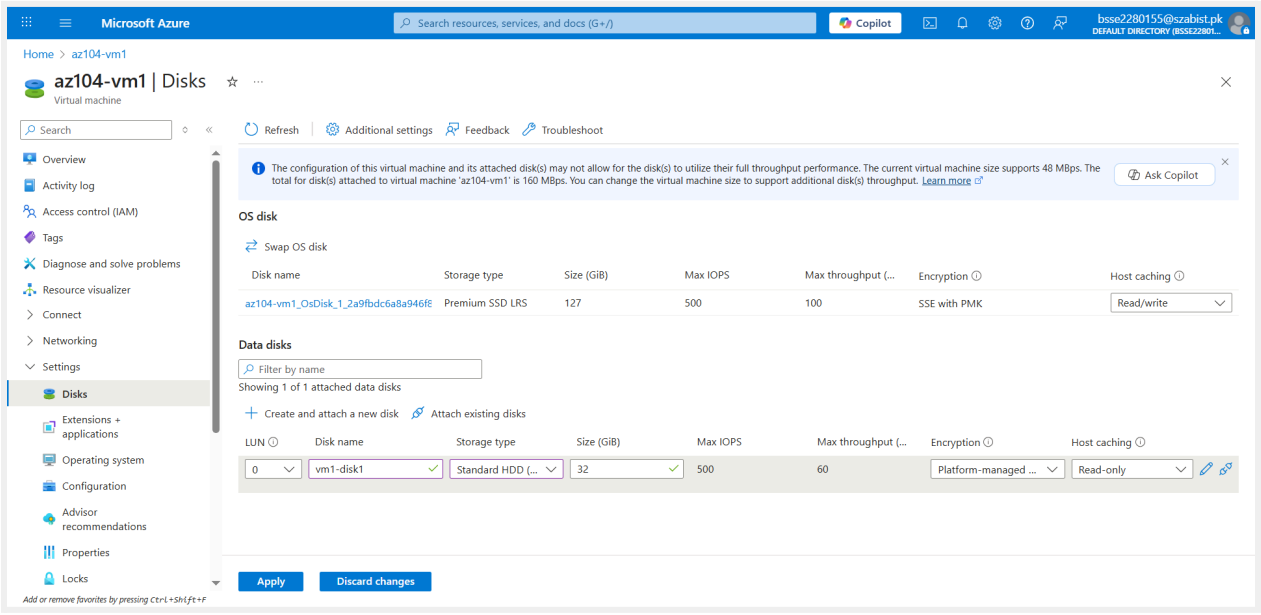
Task 2: Manage compute and storage scaling for virtual machines

- On the **az104-vm1** virtual machine, in the **Availability + scale** blade, select **Size**.
- Set the virtual machine size to **D2ds_v4** and click **Resize**.



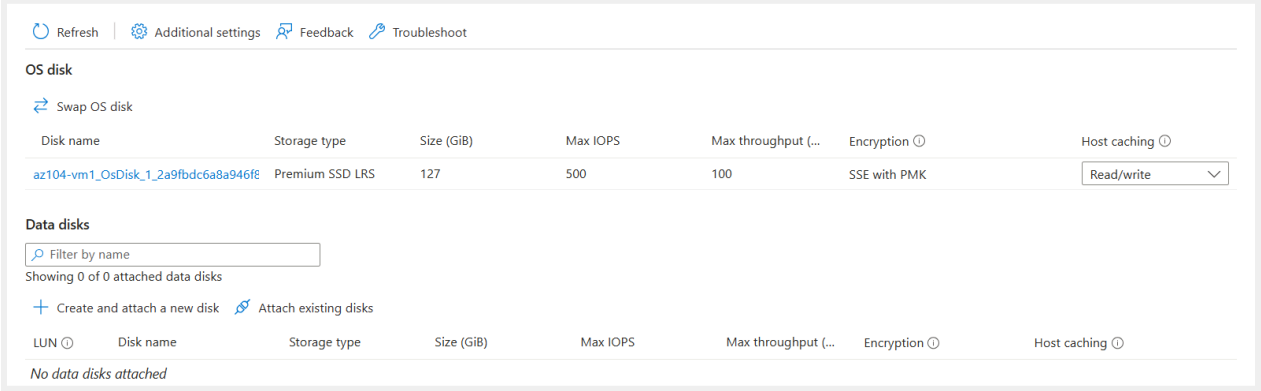


- In the **Settings** area, select **Disks**.
- Under **Data disks** select **Create and attach a new disk**.

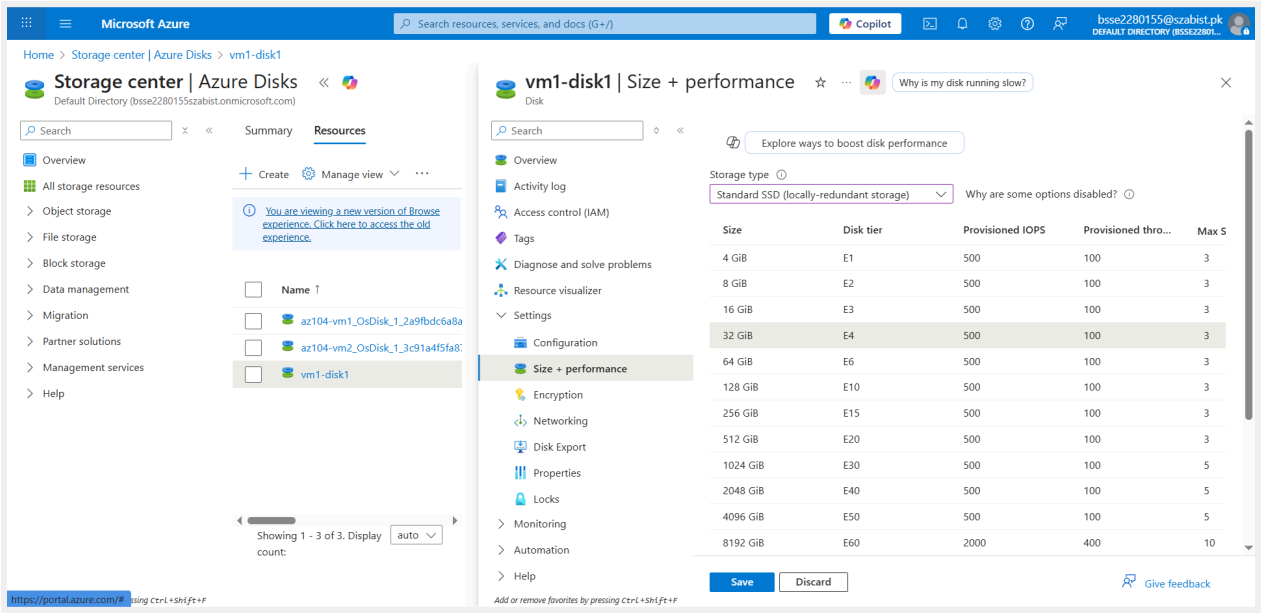


- Click **Apply**.

- After the disk has been created, click **Detach**.

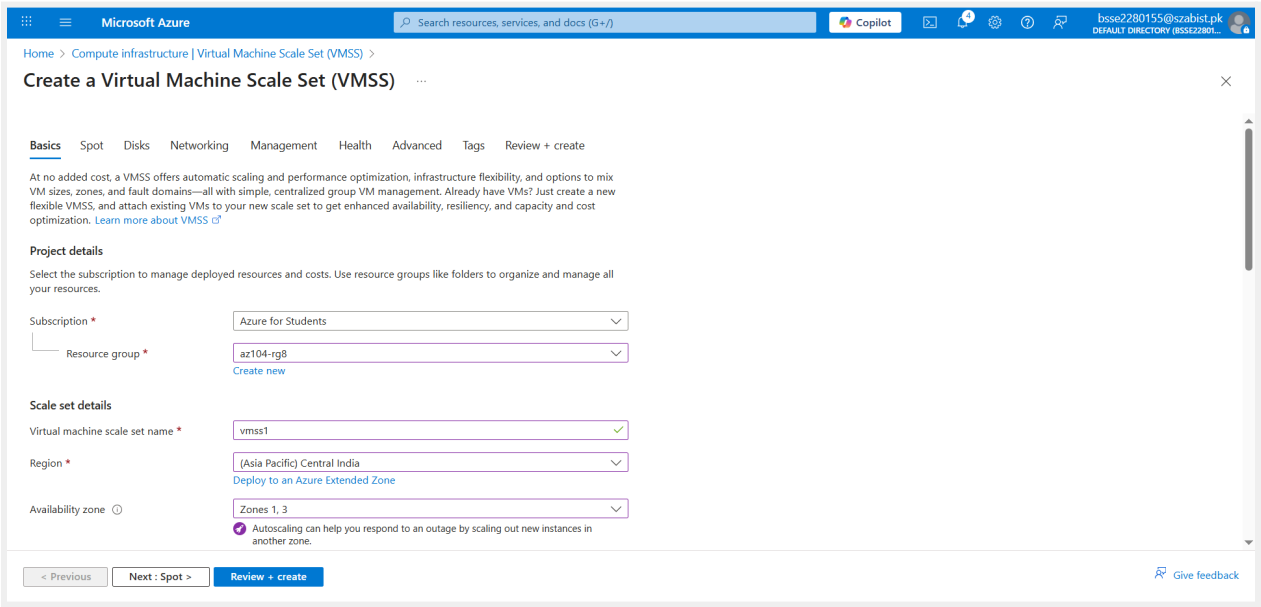


- Search for and select **Disks**.
- In the **Settings** blade, select **Size + performance**.



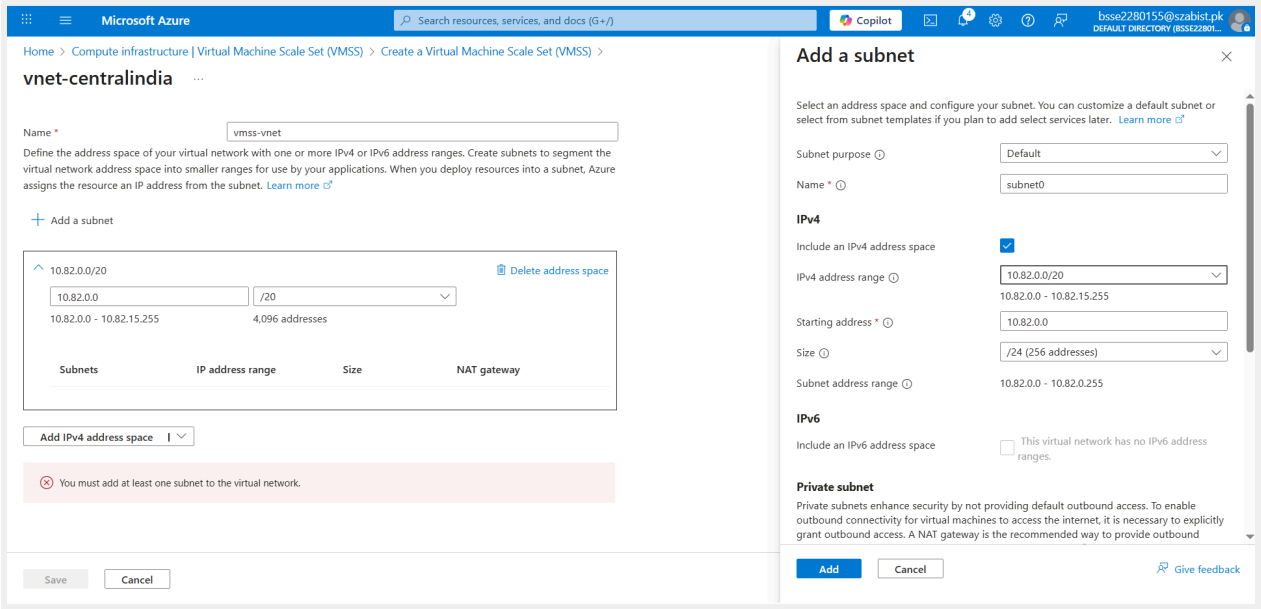
Task 3: Create and configure Azure Virtual Machine Scale Sets

- Search for and select **Virtual machine scale sets** and, on the **Virtual machine scale sets** blade, click **Create**.

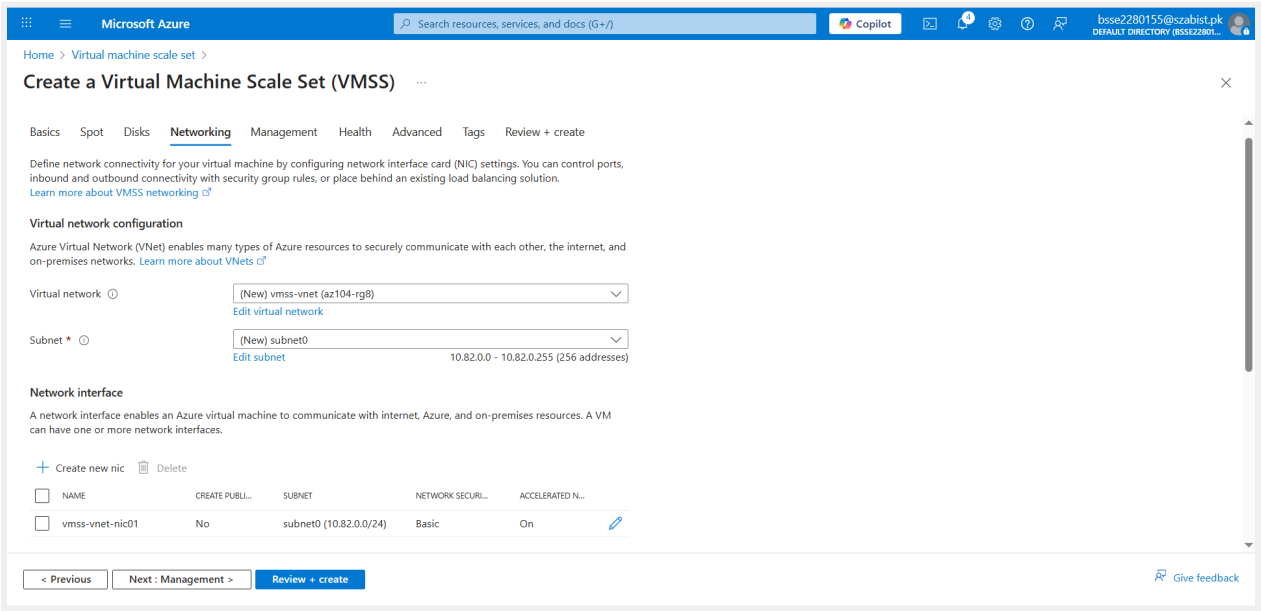


- Selecting only zones 1 & 3, as zone coverage is limited in some regions for **Azure Student Subscription**.

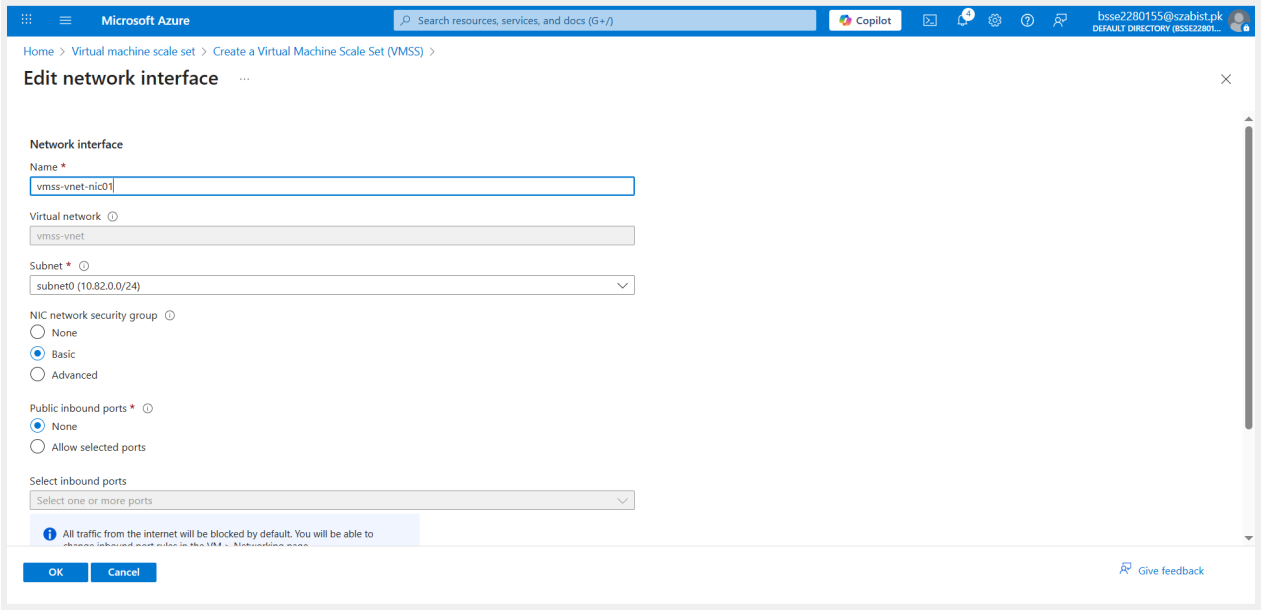
- On the **Networking** page, select **Edit virtual network** link.



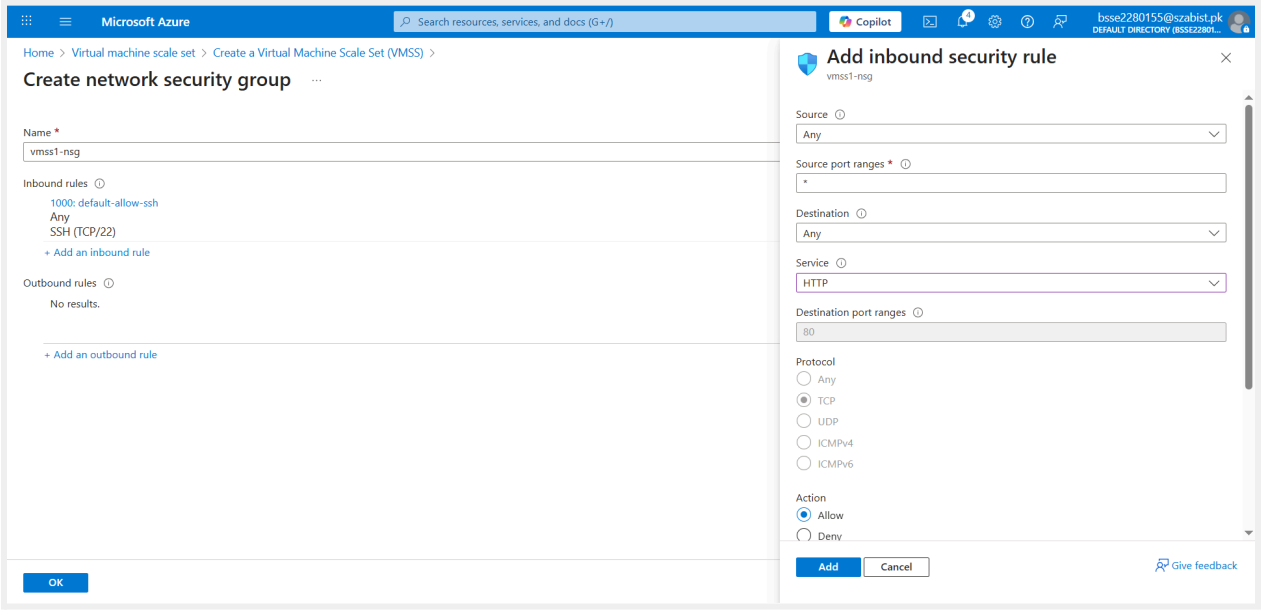
- In the **Networking** tab, click the **Edit network interface**.



- Select **Advanced** and then click **Create new** under the **Configure network security group** drop-down list.

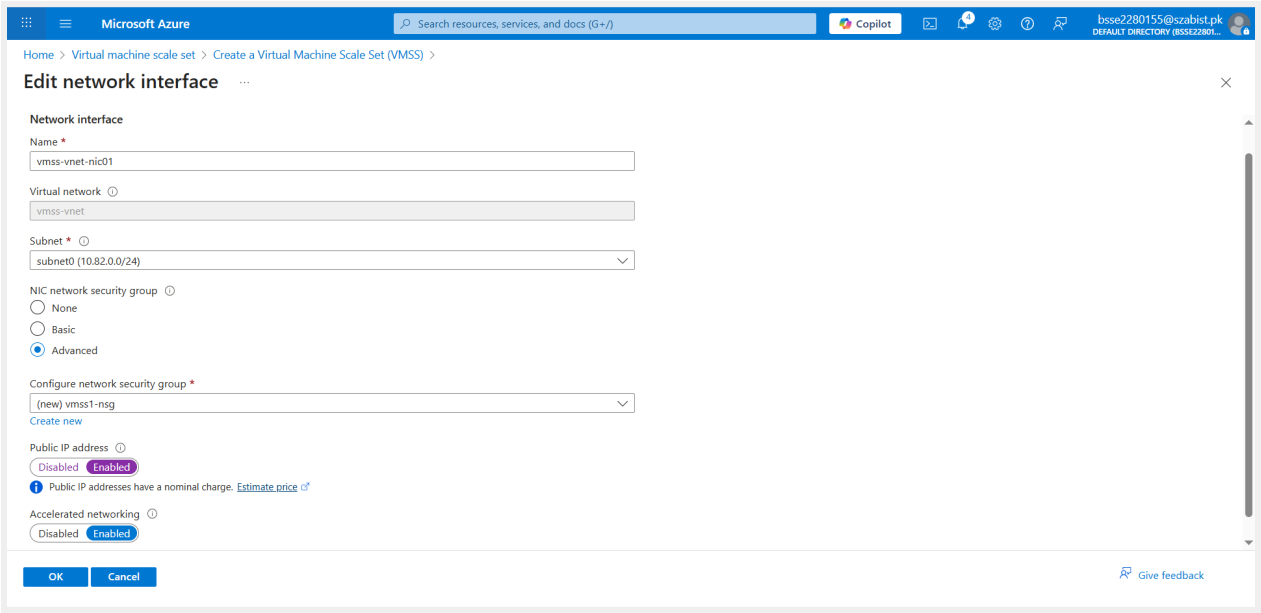


- Click **Add an inbound rule** and add an inbound security rule.

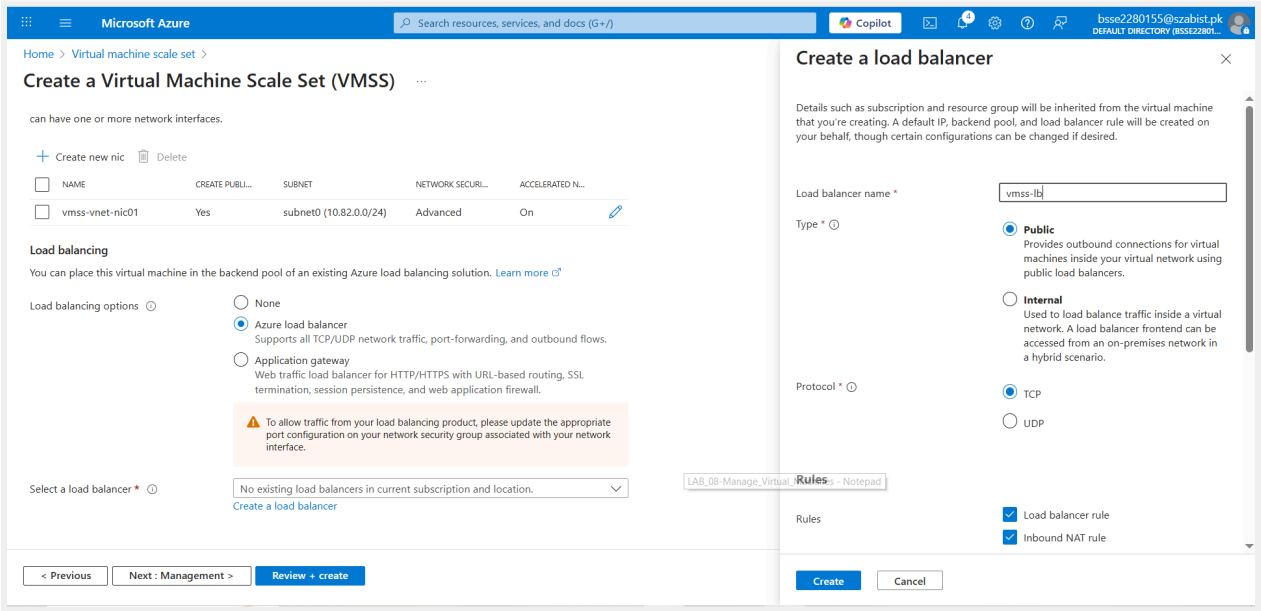


- Click **Add** and, back on the **Create network security group** blade, click **OK**.

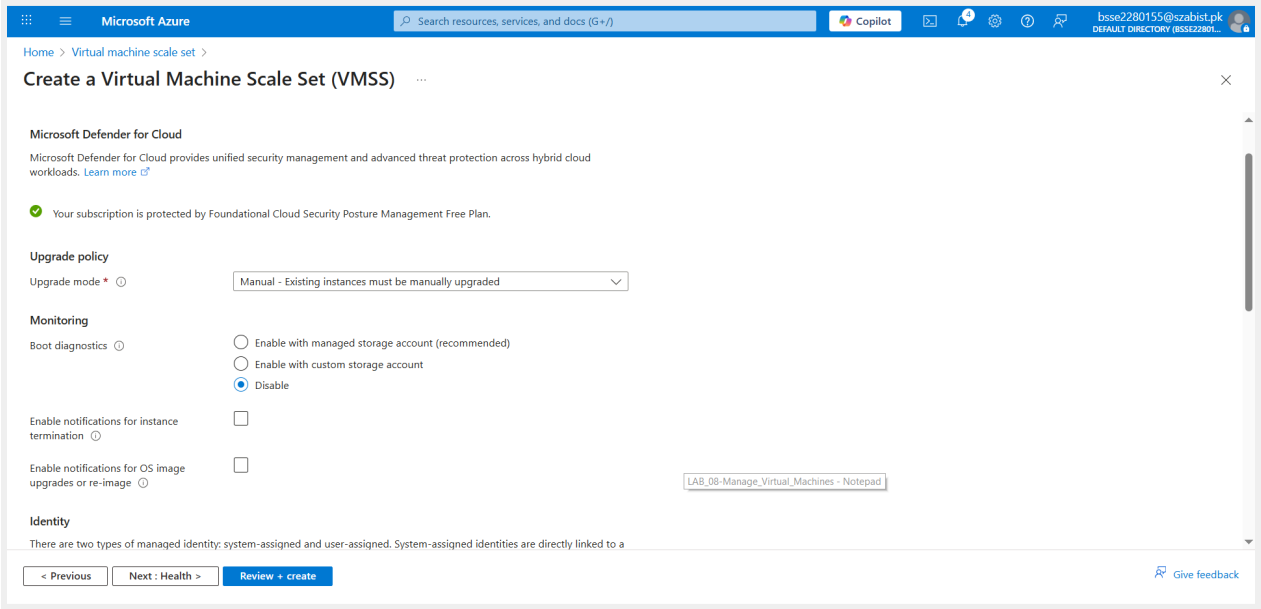
- In the **Edit network interface** blade, in the **Public IP address** section, click **Enabled**.

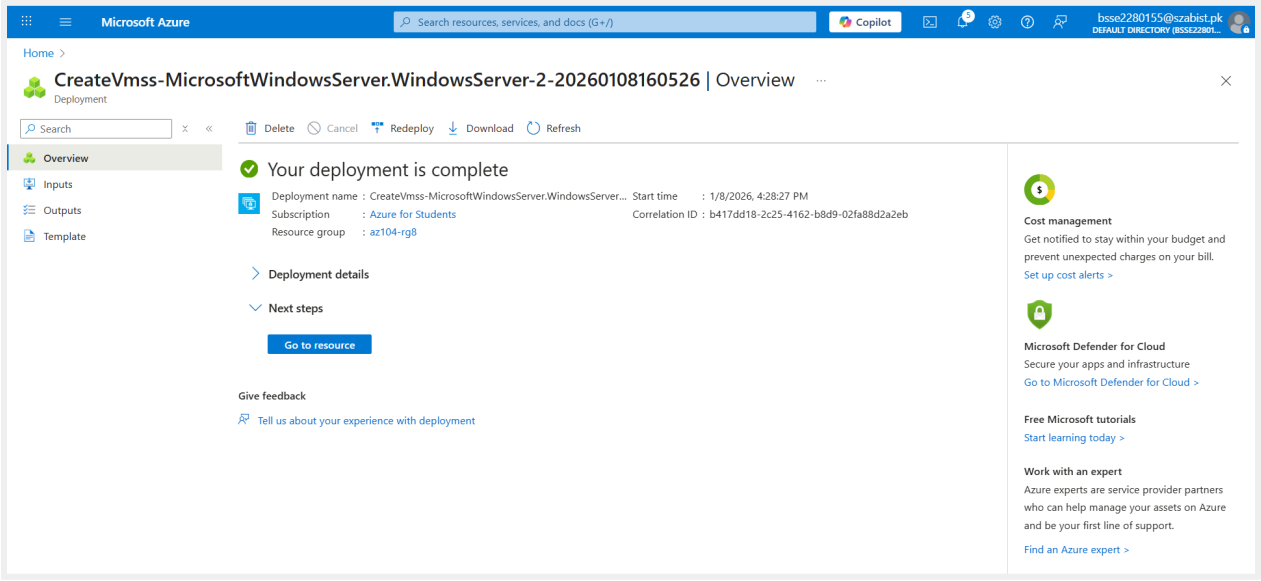


- In the **Networking** tab, **Create a load balancer**.



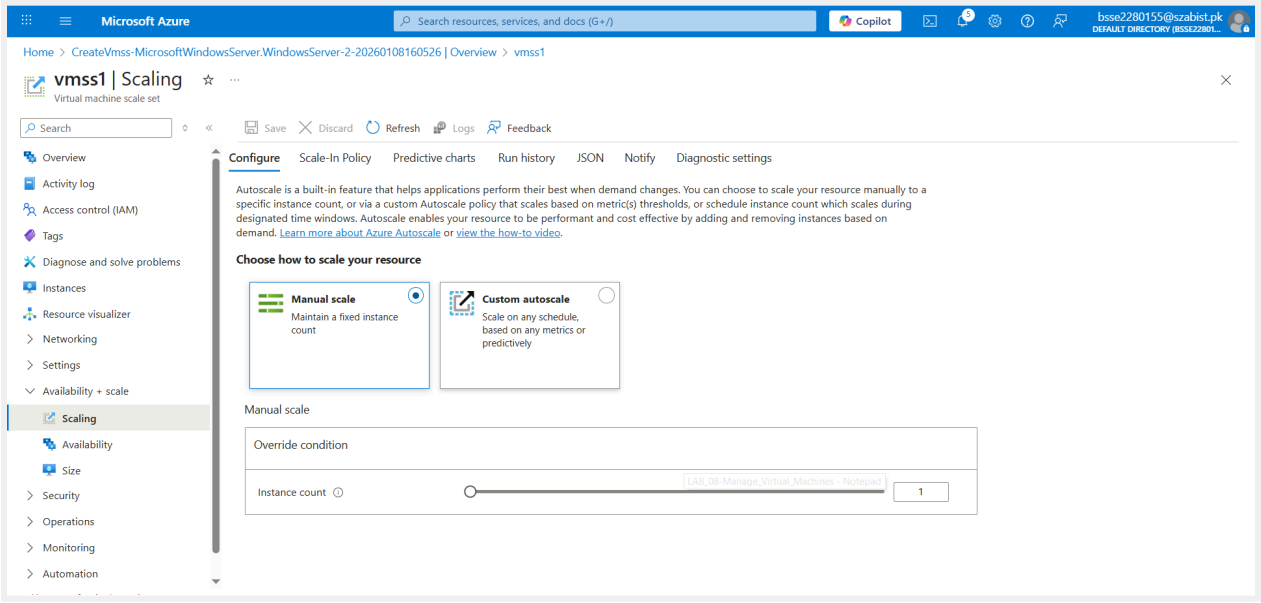
- On the **Review + create** tab, ensure that the validation passed and click **Create**.



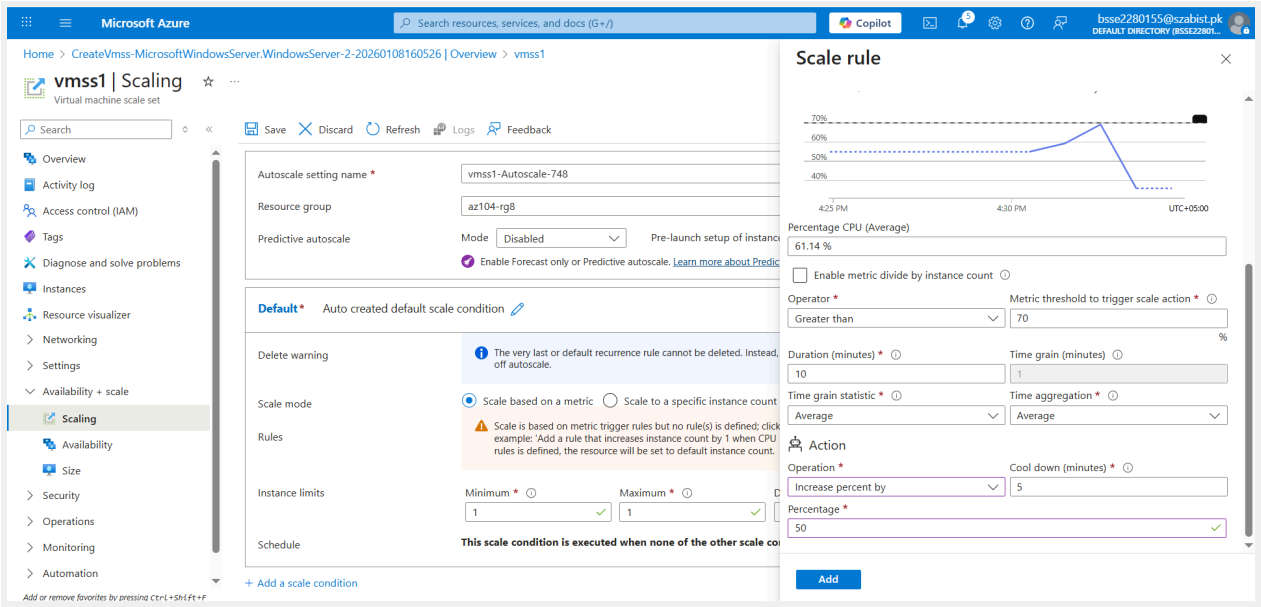


Task 4: Scale Azure Virtual Machine Scale Sets

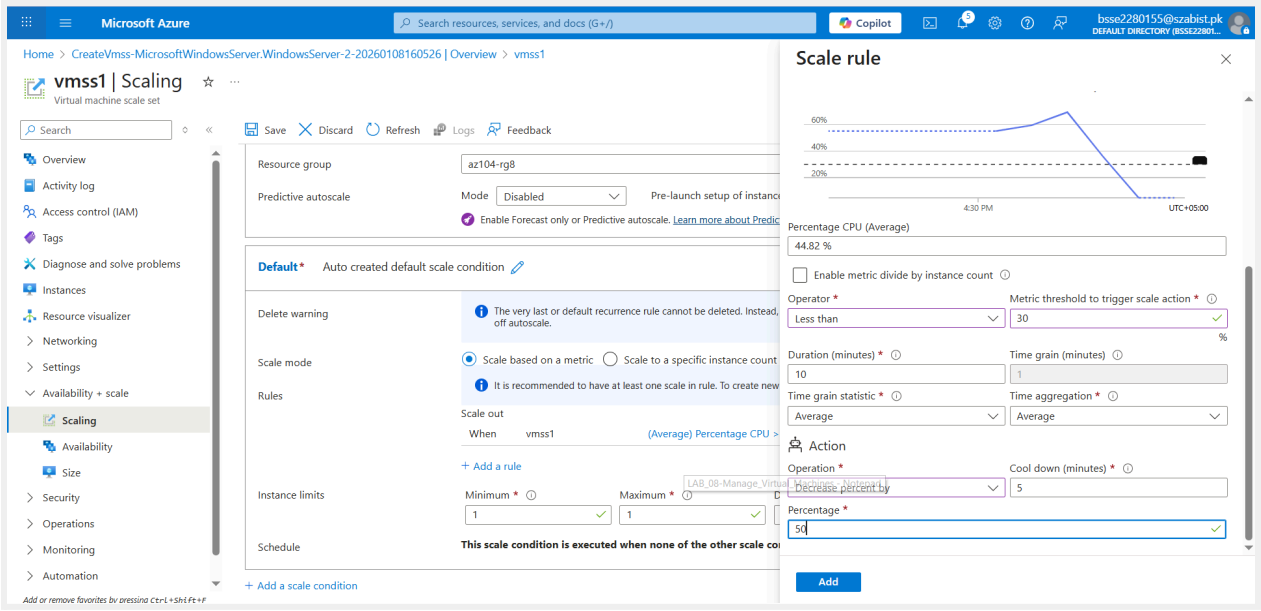
- Select **Go to resource** or search for and select the **vmss1** scale set.
- Choose **Availability + Scale** from the left side menu, then choose **Scaling**.



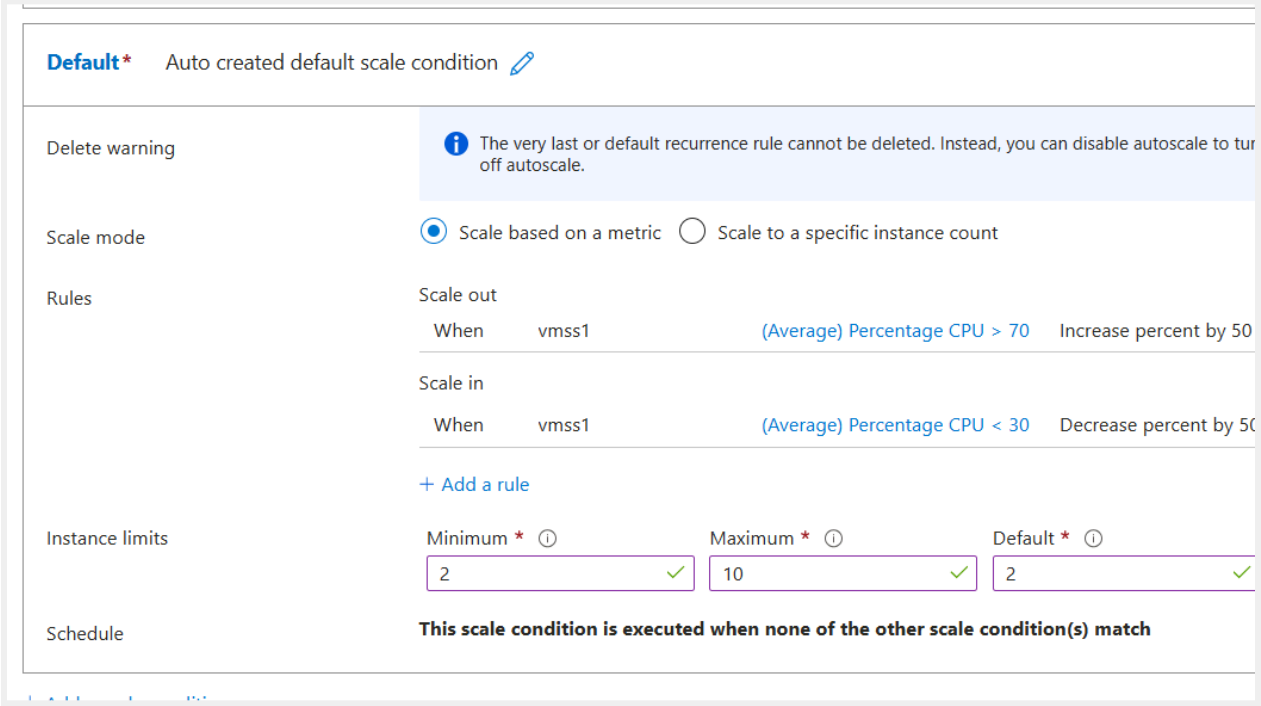
- Select **Add a rule**.



- Create a rule that decreases the number of VM instances in a scale set. Select **Add a rule**.



- **Set the instance limits**



- **Save** your changes.