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PLACEMENT EMPOWERMENT PROGRAM

Cloud Computing & DevOps Centre

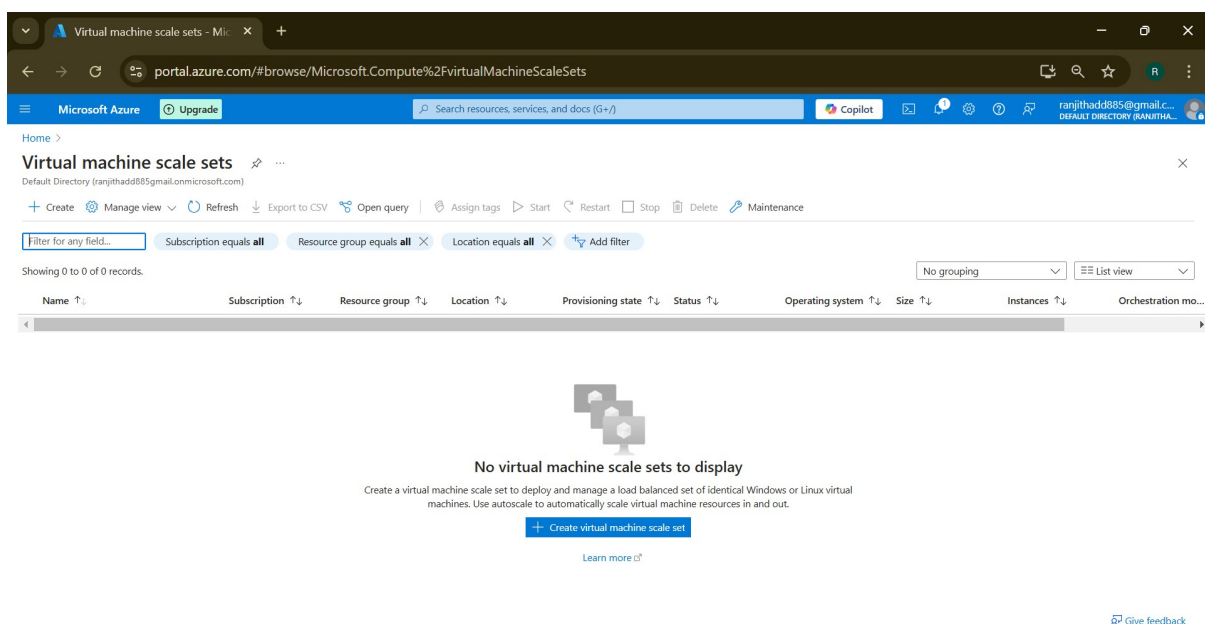
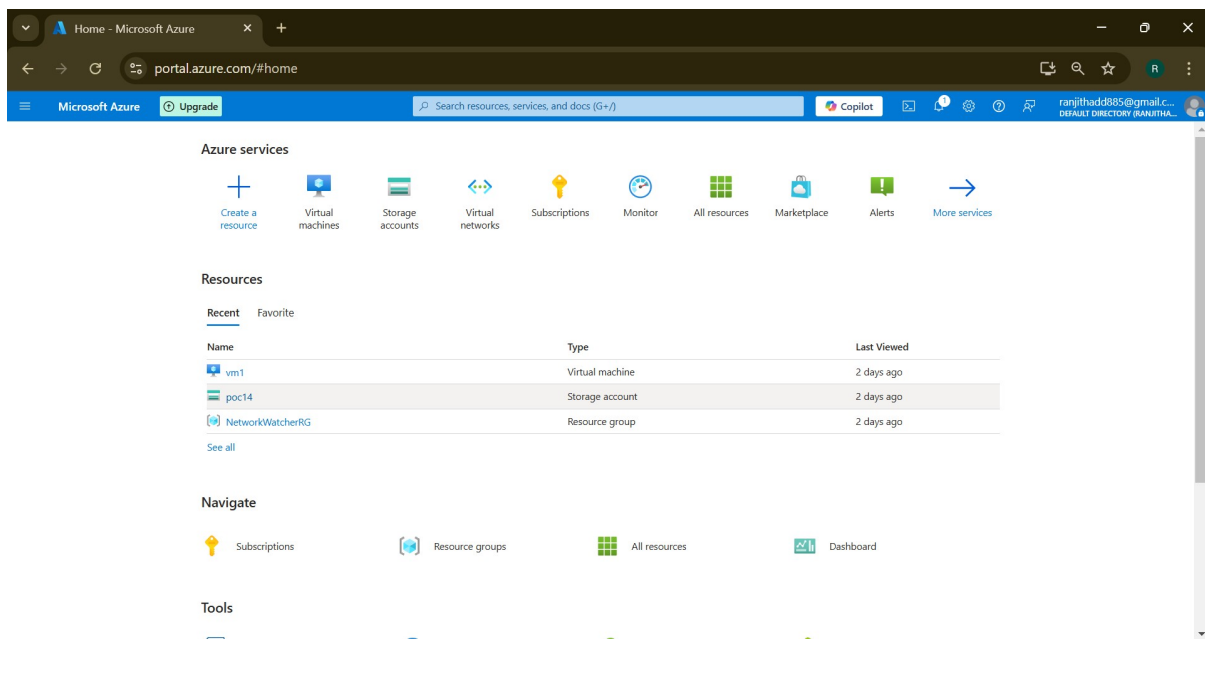
Implementing auto-scaling in Azure: Set up an auto-scaling groups in Azure VMs for handling various workloads.

Name: Ranjitha Prabha P

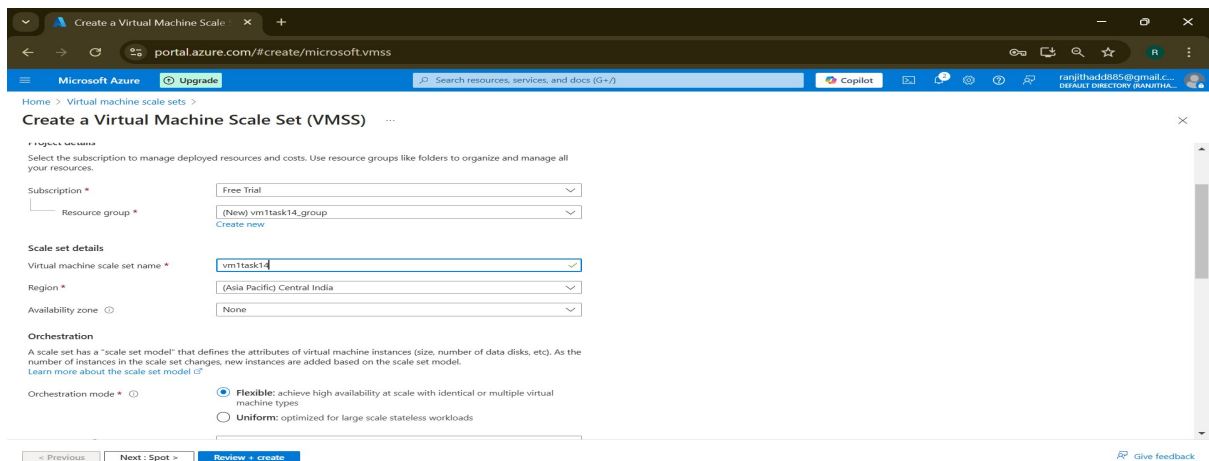
Dept: CSE

Step-by-step process:

Step 1: Open the Azure portal and navigate to VM Scale Sets.



Step 2: Enter the necessary details.



portal.azure.com/#create/microsoft.vms

Microsoft Azure Upgrade Search resources, services, and docs (G+/) Copilot

Home > Virtual machine scale sets >

Create a Virtual Machine Scale Set (VMSS)

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription * Free Trial

Resource group * (New) vm1task14_group

Create new

Scale set details

Virtual machine scale set name * vm1task14

Region * (Asia Pacific) Central India

Availability zone None

Orchestration

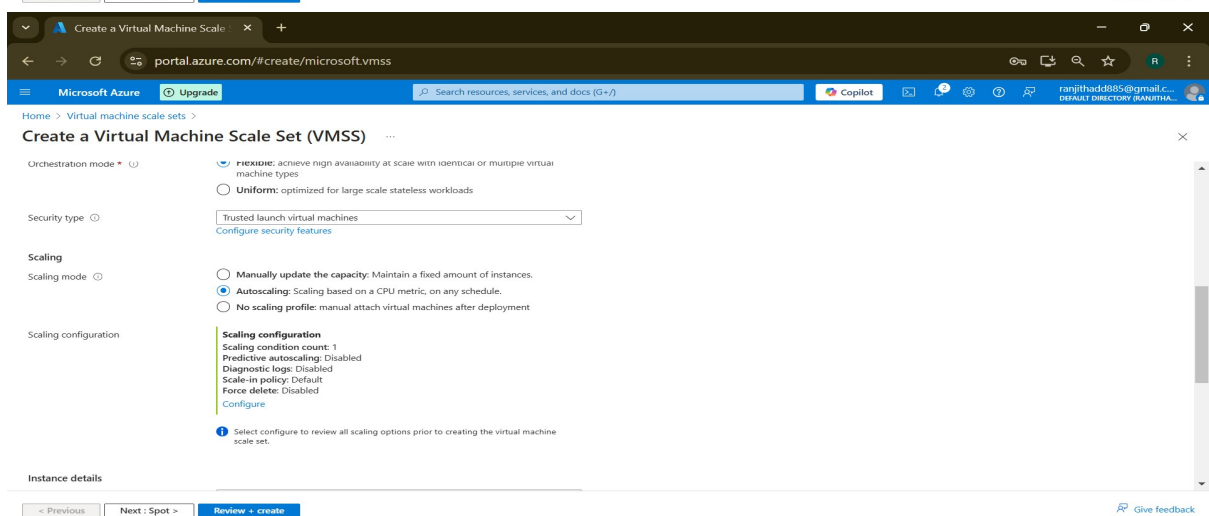
A scale set has a "scale set model" that defines the attributes of virtual machine instances (size, number of data disks, etc.). As the number of instances in the scale set changes, new instances are added based on the scale set model.

Learn more about the scale set model

Orchestration mode * ☒ Flexible: achieve high availability at scale with identical or multiple virtual machine types

☐ Uniform: optimized for large scale stateless workloads

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Create a Virtual Machine Scale Set (VMSS)

Orchestration mode * ☒ Flexible: achieve high availability at scale with identical or multiple virtual machine types

☐ Uniform: optimized for large scale stateless workloads

Security type Trusted launch virtual machines

Configure security features

Scaling

Scaling mode ☒ Autoscaling: Scaling based on a CPU metric, on any schedule.

☐ No scaling profile: manual attach virtual machines after deployment

Scaling configuration

Scaling configuration

Scaling condition count: 1

Predictive autoscaling: Disabled

Diagnostic logs: Disabled

Scale-in policy: Default

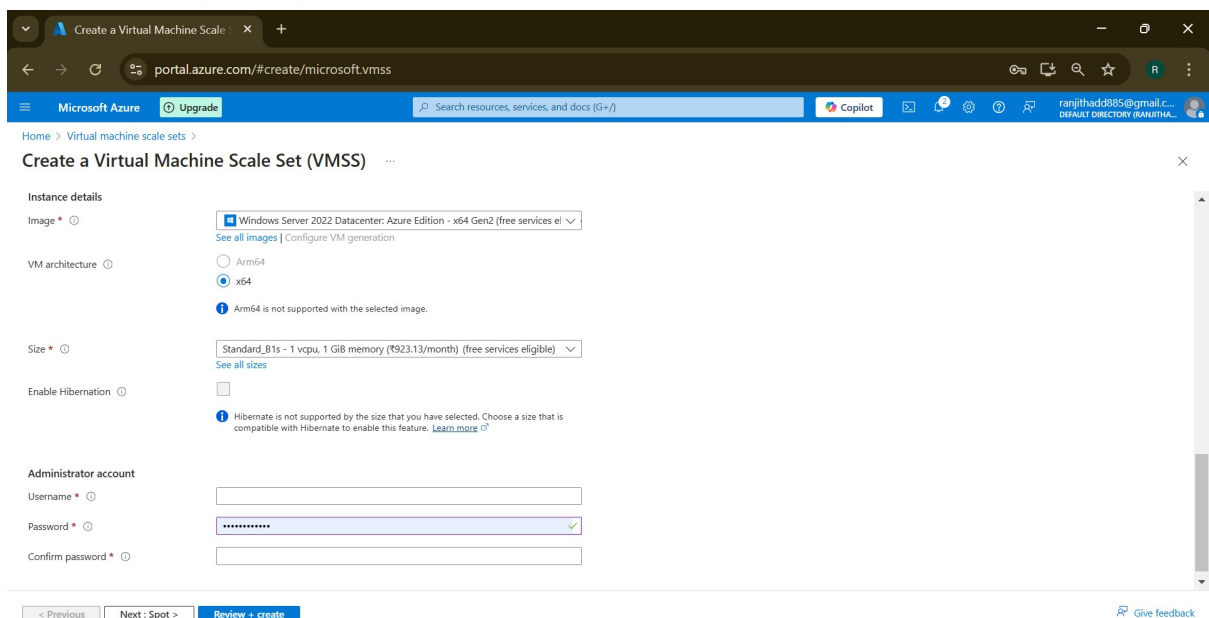
Force delete: Disabled

Configure

Select configure to review all scaling options prior to creating the virtual machine scale set.

Instance details

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portal.azure.com/#create/microsoft.vms

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Home > Virtual machine scale sets >

Create a Virtual Machine Scale Set (VMSS)

Instance details

Image * Windows Server 2022 Datacenter: Azure Edition - x64 Gen2 (free services eligible)

See all images | Configure VM generation

VM architecture ☒ x64

Arm64 is not supported with the selected image.

Size * Standard_B1s - 1 vcpu, 1 GiB memory (€923.13/month) (free services eligible)

See all sizes

Enable Hibernation ☐

Hibernation is not supported by the size that you have selected. Choose a size that is compatible with Hibernation to enable this feature. Learn more

Administrator account

Username *

Password *

Confirm password *

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Step 3: Enable Auto-Scaling configuration and enter the necessary details.

Scaling configuration

Configure the conditions by editing the existing default condition, and if needed, add more conditions for more customized scaling. Starting from the second condition, you can choose to scale your resource manually to a fixed instance count, or via Autoscale policy and schedule instance count which scales during designation time windows.

+ Add a scaling condition Delete

Condition	Mode	Instance Count	CPU Threshold	Schedule
Default condition	Autoscale	{2, 20, 2}	(80%, 20%)	No

Predictive autoscaling

Enable forecast for predictive autoscaling ☐

Diagnostic logs

Collect diagnostic logs from Autoscale ☐

Save Cancel

Add a scaling condition

Autoscaling: Scaling based on a CPU metric, on any schedule.

Default instance count * 2

Instance limit

Minimum * 2
The minimum count of instances this condition will scale down to is 2.

Maximum * 10
The maximum count of instances this condition will scale up to is 10.

Scale out

CPU threshold greater than * 70
Every time the average CPU usage is greater than 70%.

Increase instance count by * 2
The condition will increase the instance count by 2 instances

Scale in

Save

Create a Virtual Machine Scale Set (VMSS)

Changing Basic options may reset selections you have made. Review all options prior to creating the virtual machine.

Security type Trusted launch virtual machines
[Configure security features](#)

Scaling

Scaling mode

☐ Manually update the capacity: Maintain a fixed amount of instances.

☒ Autoscaling: Scaling based on a CPU metric, on any schedule.

☐ No scaling profile: manual attach virtual machines after deployment

Scaling configuration

Scaling configuration

Scaling condition count: 2

Predictive autoscaling: Disabled

Diagnostic logs: Disabled

Scale-in policy: Default

Force delete: Disabled

[Configure](#)

Instance details

Image * Windows Server 2022 Datacenter: Azure Edition - x64 Gen2 (free services el)
[See all images](#) | [Configure VM generation](#)

VM architecture

☐ Arm64

☒ x64

Step 4: Go to the Scaling page in your VMSS.

Then add scale-out rule and scale-in rule.

Step 6: Go to Azure Monitor for viewing the metrics of your VMSS.

