Module 4: Assignment 3

Tasks To Be Performed:

1. Create a VM scale set with Ubuntu as OS

2. Give min VM's as 1 and maximum as 5

3. For scale-out CPU % is 75 and increase by 1 VM

4. For scale-in CPU % is 25 increase by 1 VM

Solution:

1. Create a VM Scale Set with Ubuntu as OS

Navigate to the Azure Portal:

Go to the Azure Portal and log in with your credentials.

Create a New VM Scale Set:

In the Azure Portal, search for "Virtual machine scale sets" in the search bar.

Click on "Create" to start the setup.

Basics Tab:

Subscription: Select your Azure subscription.

Resource group: Select an existing resource group or create a new one.

Name: Give your scale set a name.

Region: Choose the region where you want the scale set to be deployed.

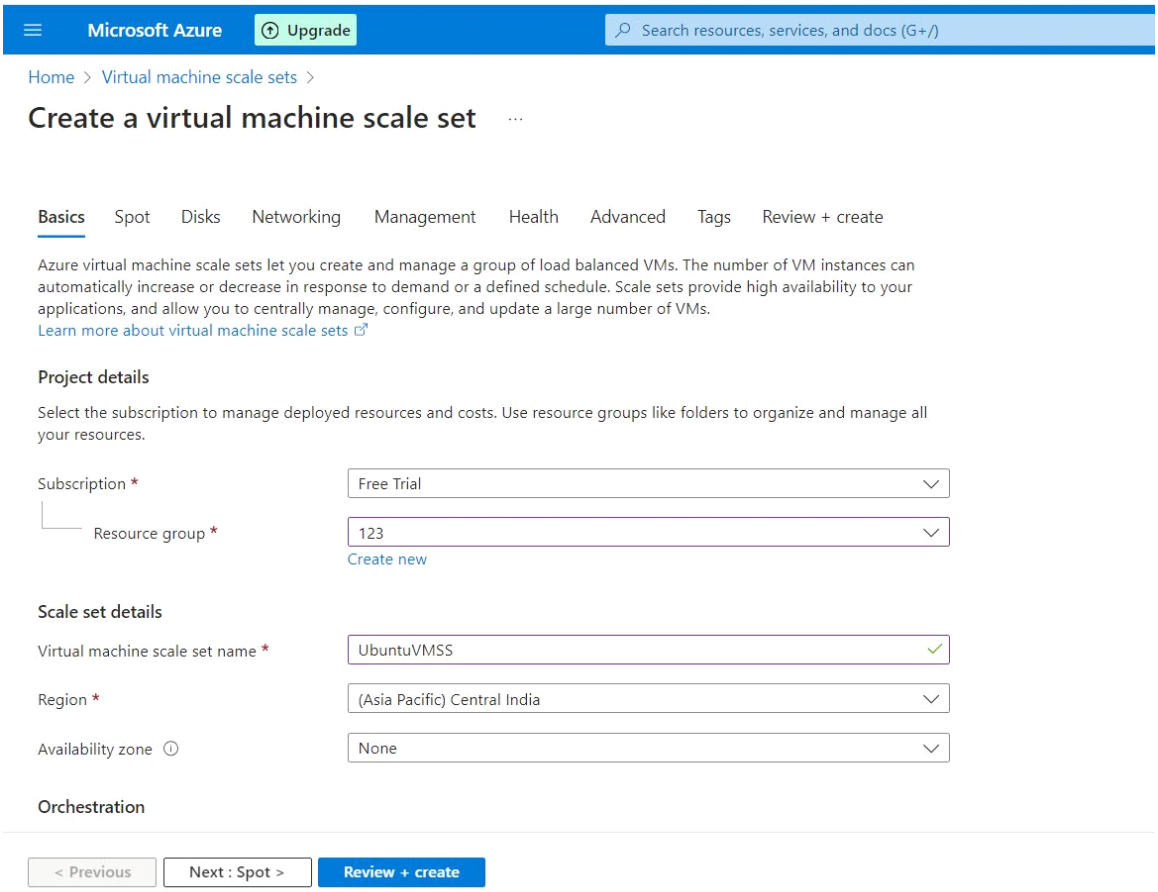
Availability Zone: Select the appropriate availability zone (if needed).

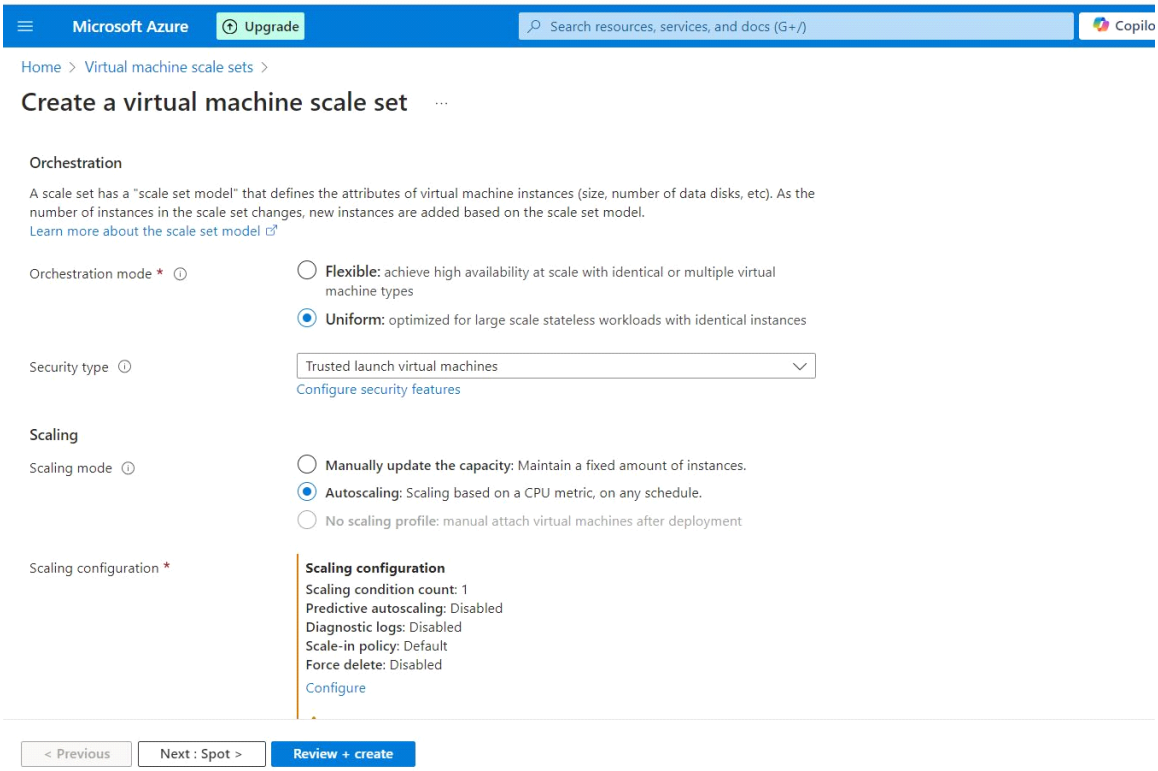
Image: Choose "Ubuntu Server" as the OS.

Size: Choose an appropriate VM size for the scale set.

Authentication type: Select the authentication method (SSH or password).

Instance count: Set the initial number of instances, e.g., 1.

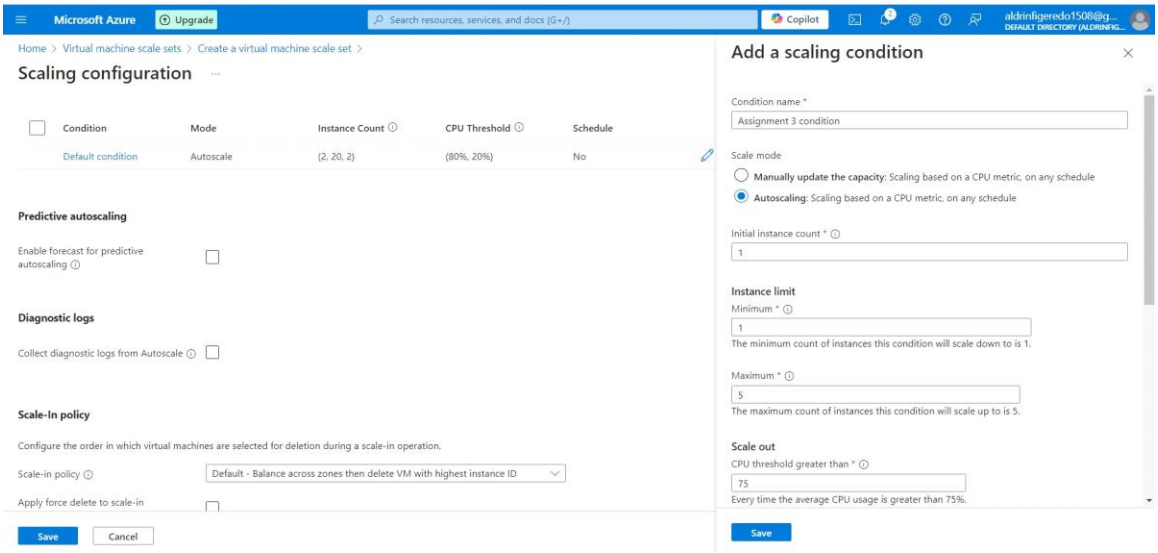


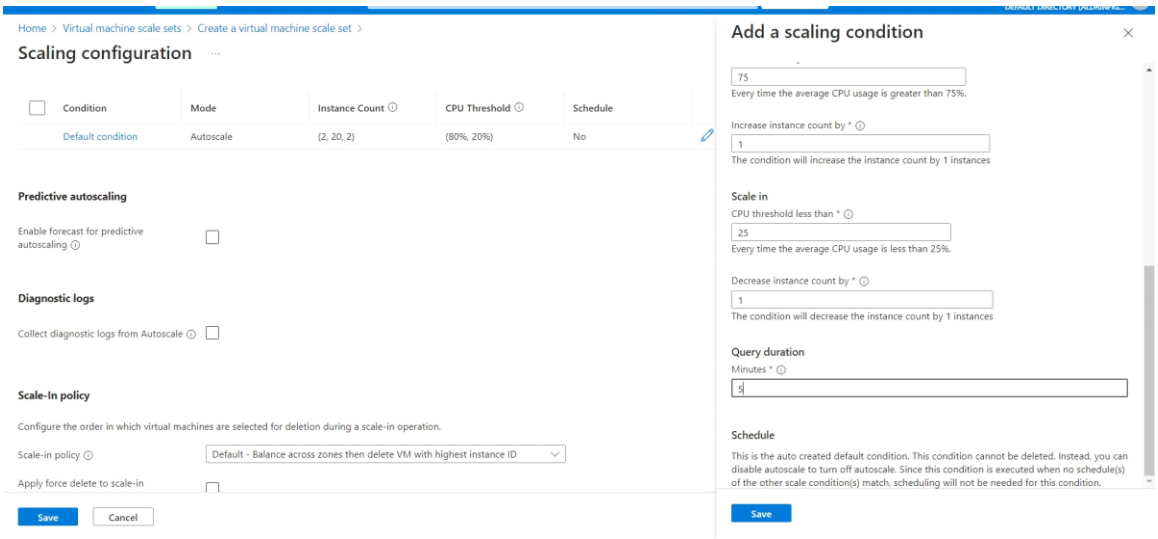


2. Set Minimum VMs to 1 and Maximum to 5

Instances and Scaling:

In the "Instances and Scaling" section, set the minimum number of VMs to 1 and the maximum to 5.





3. Configure Scale-out at 75% CPU to Increase by 1 VM

Scaling:

Go to the "Scaling" tab within the scale set creation process.

Scale-out rules:

Add a new rule for scaling out.

Set the metric to "CPU Percentage."

Set the condition to "Greater than" 75%.

Set the action to "Increase count by" 1.

4. Configure Scale-in at 25% CPU to Decrease by 1 VM

Scale-in rules:

Add a new rule for scaling in.

Set the metric to "CPU Percentage."

Set the condition to "Less than" 25%.

Set the action to "Decrease count by" 1.

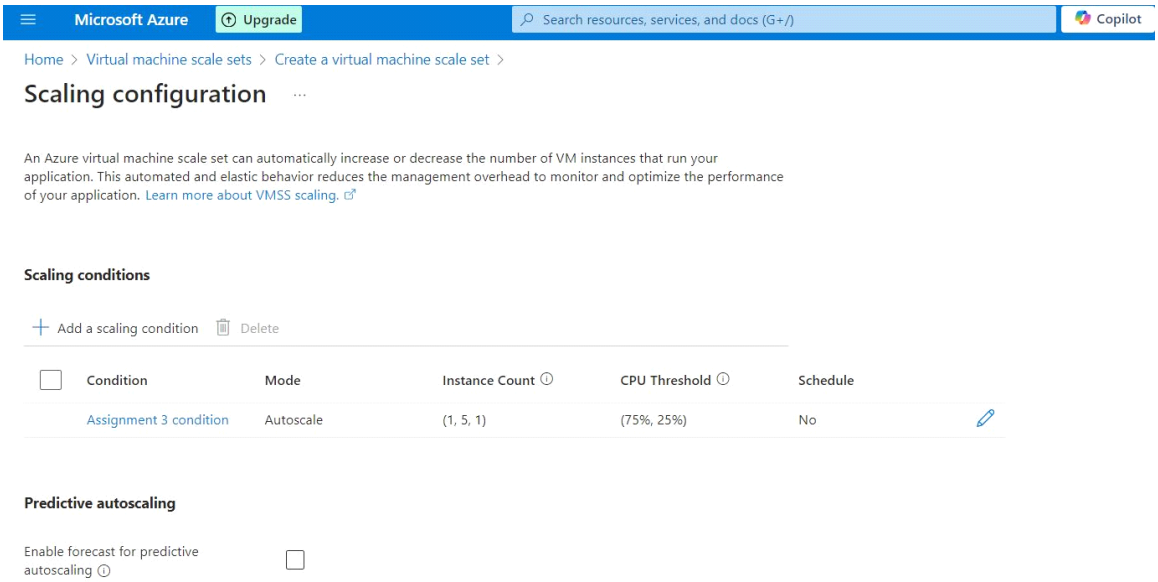
5. Review and Create

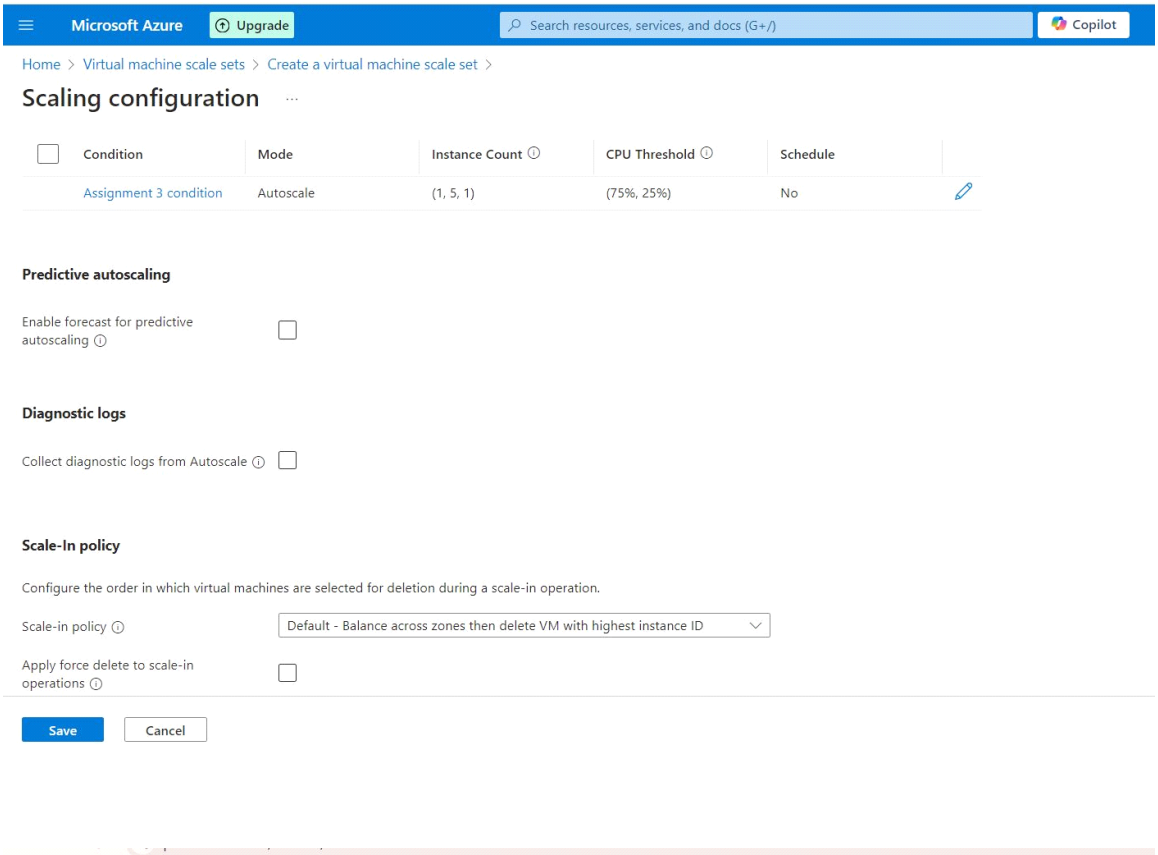
Review:

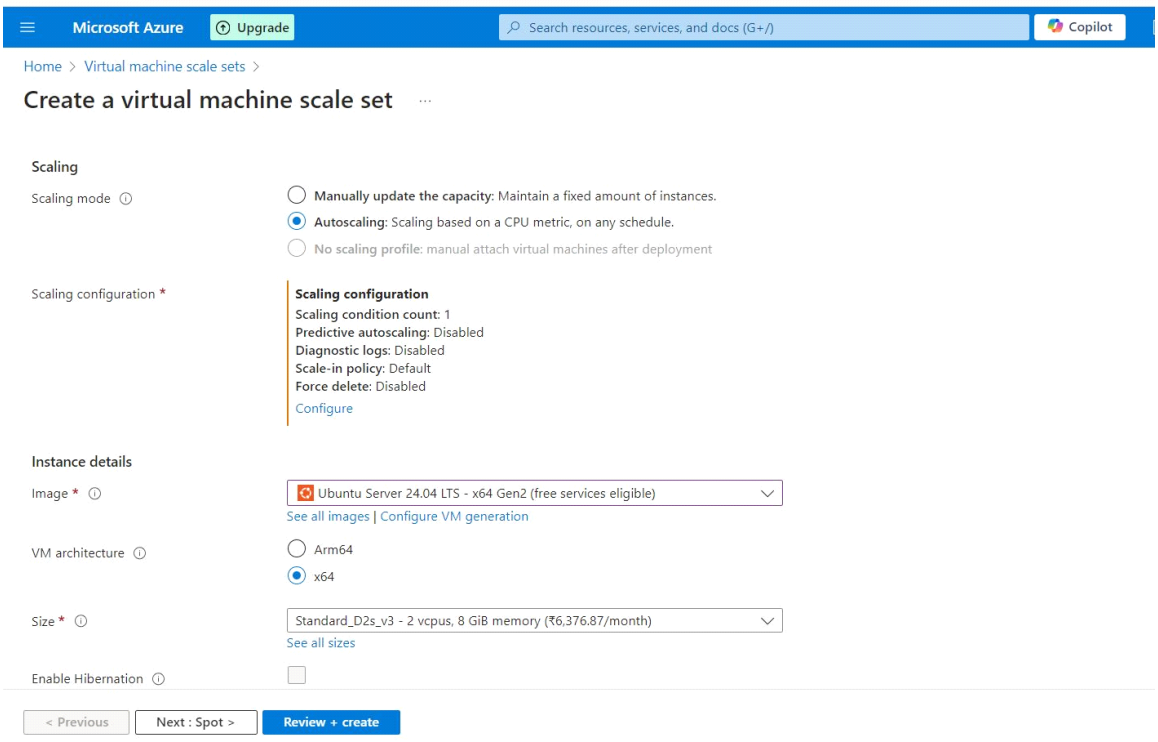
Review all your settings.

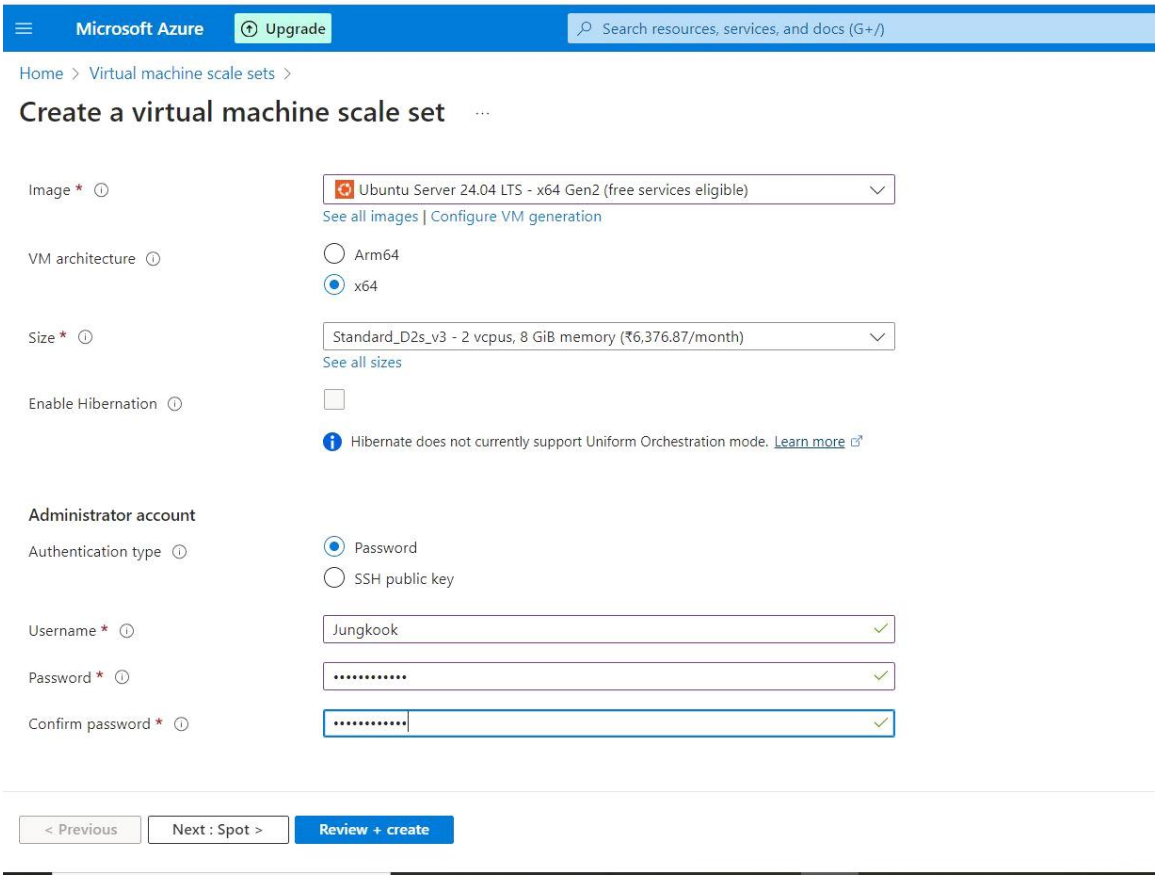
Create:

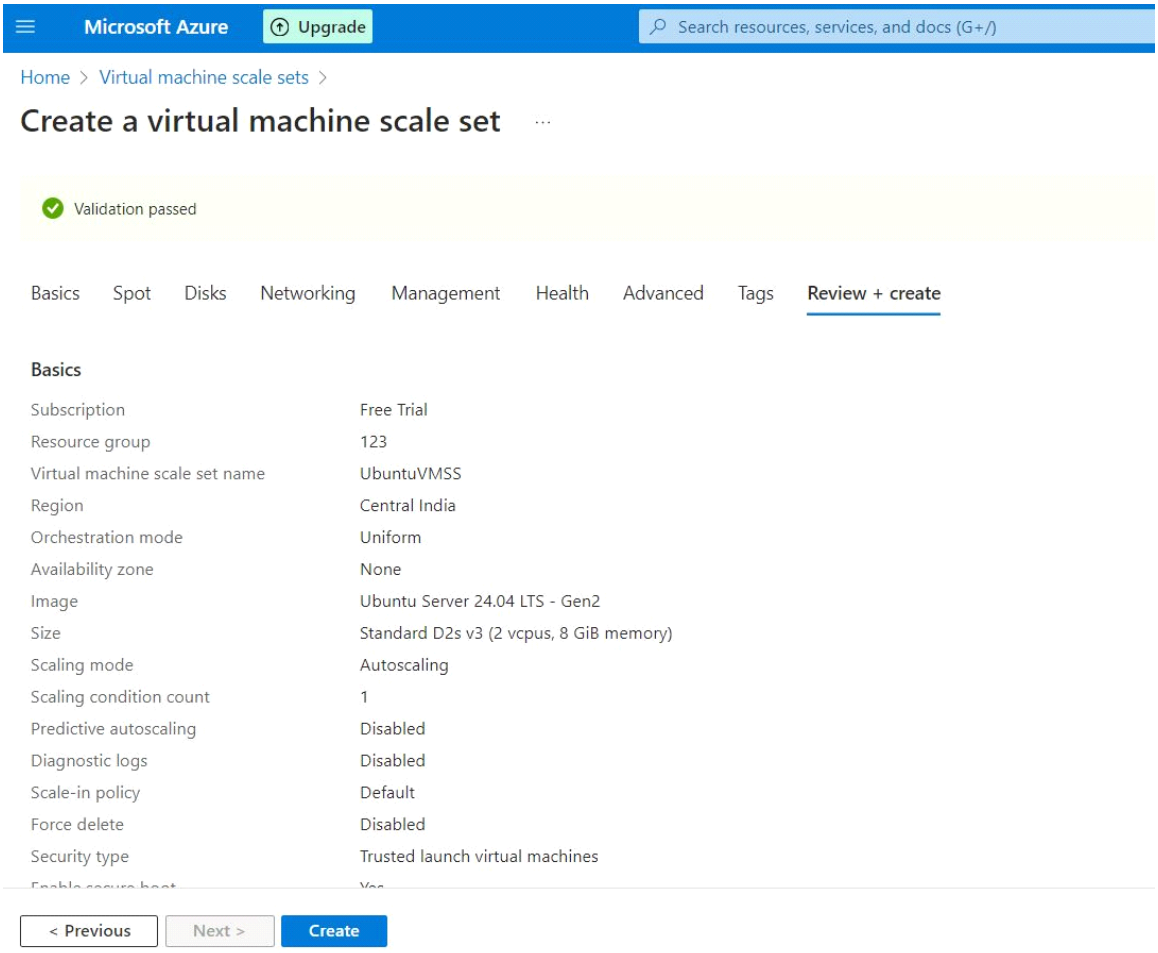
Click "Create" to deploy the VM scale set.

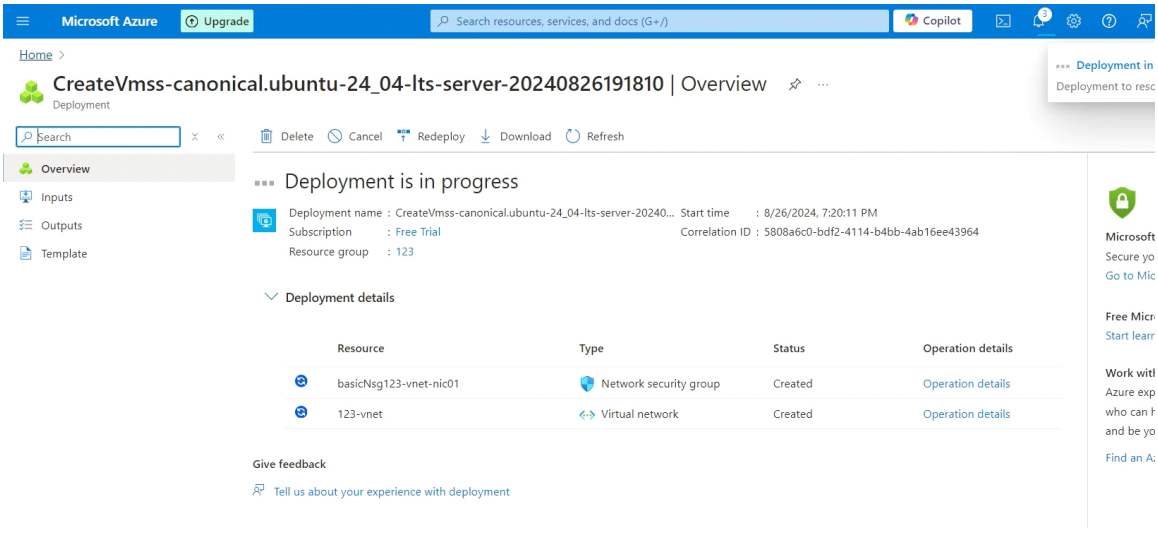


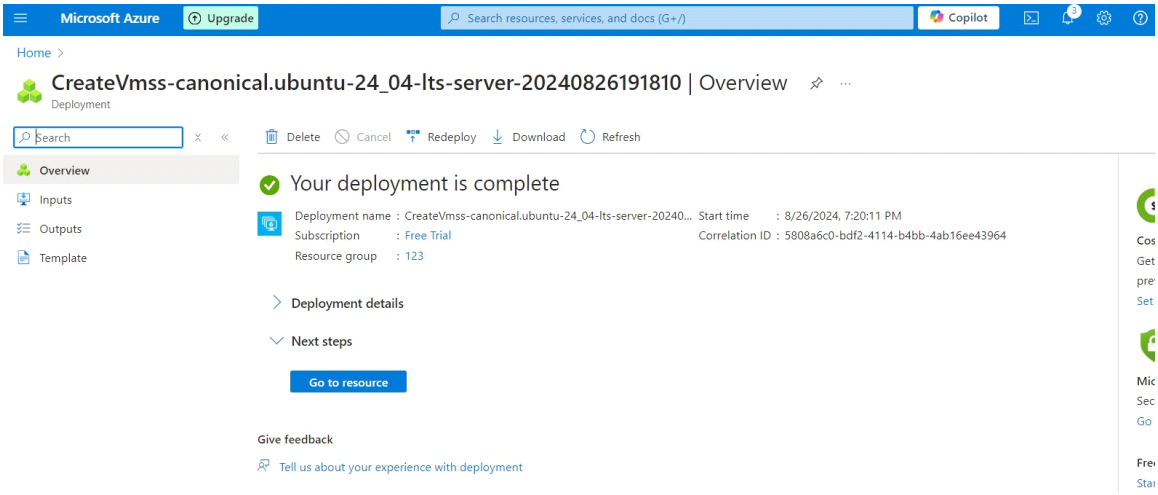

Microsoft Azure
Upgrade
Search resources, services, and docs (G+/)
Copilot
Home > Virtual machine scale sets > Create a virtual machine scale set >
Scaling configuration
Condition
Mode
Instance Count
CPU Threshold
Schedule
Assignment 3 condition
Autoscale
(1, 5, 1)
(75%, 25%)
No
Predictive autoscaling
Enable forecast for predictive autoscaling
Diagnostic logs
Collect diagnostic logs from Autoscale
Scale-In policy
Configure the order in which virtual machines are selected for deletion during a scale-in operation.
Scale-in policy
Default - Balance across zones then delete VM with highest instance ID
Apply force delete to scale-in operations
Save
Cancel

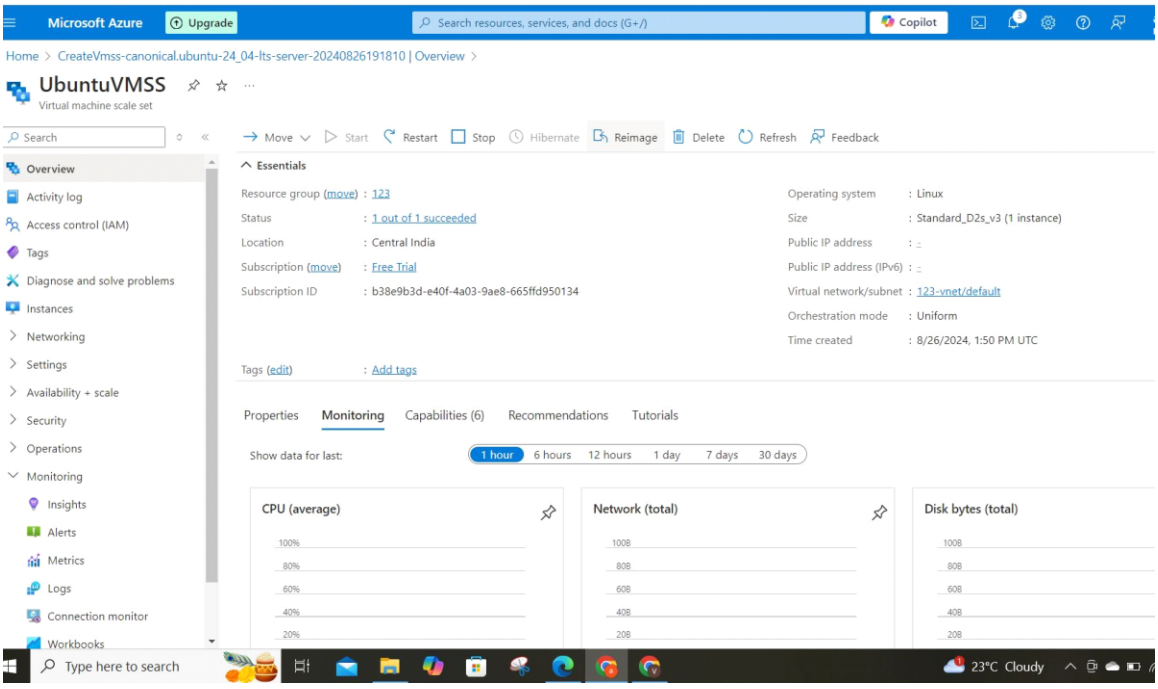

Microsoft Azure
Upgrade
Search resources, services, and docs (G+/)
Copilot
Home > Virtual machine scale sets >
Create a virtual machine scale set
Scaling
Scaling mode
Manually update the capacity: Maintain a fixed amount of instances.
Autoscaling: Scaling based on a CPU metric, on any schedule.
No scaling profile: manual attach virtual machines after deployment
Scaling configuration *
Scaling configuration
Scaling condition count: 1
Predictive autoscaling: Disabled
Diagnostic logs: Disabled
Scale-in policy: Default
Force delete: Disabled
Configure
Instance details
Image *
Ubuntu Server 24.04 LTS - x64 Gen2 (free services eligible)
See all images | Configure VM generation
VM architecture
Arm64
x64
Size *
Standard_D2s_v3 - 2 vcpus, 8 GiB memory (₹6,376.87/month)
See all sizes
Enable Hibernation
< Previous
Next : Spot >
Review + create

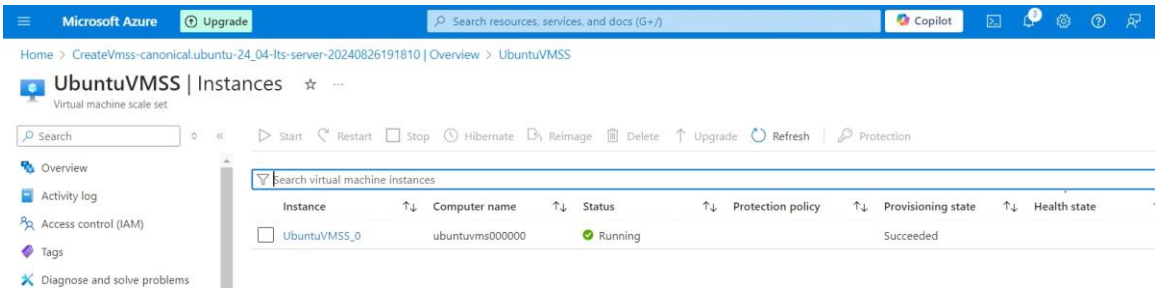

Microsoft Azure
Upgrade
Search resources, services, and docs (G+/)
Home > Virtual machine scale sets >
Create a virtual machine scale set
Image * ⓘ
Ubuntu Server 24.04 LTS - x64 Gen2 (free services eligible)
See all images | Configure VM generation
VM architecture ⓘ
Arm64
x64
Size * ⓘ
Standard_D2s_v3 - 2 vcpus, 8 GiB memory (₹6,376.87/month)
See all sizes
Enable Hibernation ⓘ
Hibernate does not currently support Uniform Orchestration mode. Learn more
Administrator account
Authentication type ⓘ
Password
SSH public key
Username * ⓘ
Jungkook
Password * ⓘ
Confirm password * ⓘ
< Previous
Next : Spot >
Review + create


Microsoft Azure
Upgrade
Search resources, services, and docs (G+/)
Home > Virtual machine scale sets >
Create a virtual machine scale set
Validation passed
Basics Spot Disks Networking Management Health Advanced Tags Review + create
Basics
Subscription Free Trial
Resource group 123
Virtual machine scale set name UbuntuVMSS
Region Central India
Orchestration mode Uniform
Availability zone None
Image Ubuntu Server 24.04 LTS - Gen2
Size Standard D2s v3 (2 vcpus, 8 GiB memory)
Scaling mode Autoscaling
Scaling condition count 1
Predictive autoscaling Disabled
Diagnostic logs Disabled
Scale-in policy Default
Force delete Disabled
Security type Trusted launch virtual machines
< Previous
Next >
Create


Microsoft Azure
Upgrade
Search resources, services, and docs (G+/)
Copilot
Home
CreateVmss-canonical.ubuntu-24_04-lts-server-20240826191810 | Overview
Deployment
Search
Overview
Inputs
Outputs
Template
Delete
Cancel
Redeploy
Download
Refresh
Deployment is in progress
Deployment name : CreateVmss-canonical.ubuntu-24_04-lts-server-20240...
Subscription : Free Trial
Resource group : 123
Start time : 8/26/2024, 7:20:11 PM
Correlation ID : 5808a6c0-bdf2-4114-b4bb-4ab16ee43964
Deployment details
Resource
Type
Status
Operation details
basicNsg123-vnet-nic01
Network security group
Created
Operation details
123-vnet
Virtual network
Created
Operation details
Give feedback
Tell us about your experience with deployment


Microsoft Azure
Upgrade
Search resources, services, and docs (G+/)
Copilot
Home
CreateVmss-canonical.ubuntu-24_04-lts-server-20240826191810 | Overview
Deployment
Search
Overview
Inputs
Outputs
Template
Delete
Cancel
Redeploy
Download
Refresh
Your deployment is complete
Deployment name : CreateVmss-canonical.ubuntu-24_04-lts-server-20240...
Subscription : Free Trial
Resource group : 123
Start time : 8/26/2024, 7:20:11 PM
Correlation ID : 5808a6c0-bdf2-4114-b4bb-4ab16ee43964
Deployment details
Next steps
Go to resource
Give feedback
Tell us about your experience with deployment


Microsoft Azure
Upgrade
Search resources, services, and docs (G+/)
Copilot
Home > CreateVmss-canonical.ubuntu-24_04-lts-server-20240826191810 | Overview
UbuntuVMSS
Virtual machine scale set
Search
Move
Start
Restart
Stop
Hibernate
Reimage
Delete
Refresh
Feedback
Overview
Activity log
Access control (IAM)
Tags
Diagnose and solve problems
Instances
Networking
Settings
Availability + scale
Security
Operations
Monitoring
Insights
Alerts
Metrics
Logs
Connection monitor
Workbooks
Essentials
Resource group (move) : 123
Status : 1 out of 1 succeeded
Location : Central India
Subscription (move) : Free Trial
Subscription ID : b38e9b3d-e40f-4a03-9ae8-665ffd950134
Operating system : Linux
Size : Standard_D2s_v3 (1 instance)
Public IP address :
Public IP address (IPv6) :
Virtual network/subnet : 123-vnet/default
Orchestration mode : Uniform
Time created : 8/26/2024, 1:50 PM UTC
Tags (edit) : Add tags
Properties
Monitoring
Capabilities (6)
Recommendations
Tutorials
Show data for last:
1 hour
6 hours
12 hours
1 day
7 days
30 days
CPU (average)
Network (total)
Disk bytes (total)
Type here to search
23°C Cloudy


Microsoft Azure
Upgrade
Search resources, services, and docs (G+/)
Copilot
Home > CreateVmss-canonical.ubuntu-24_04-lts-server-20240826191810 | Overview > UbuntuVMSS
UbuntuVMSS | Instances
Virtual machine scale set
Search
Start
Restart
Stop
Hibernate
Reimage
Delete
Upgrade
Refresh
Protection
Overview
Activity log
Access control (IAM)
Tags
Diagnose and solve problems
Search virtual machine instances
Instance
Computer name
Status
Protection policy
Provisioning state
Health state
UbuntuVMSS_0
ubuntuvms000000
Running
Succeeded