2025

SZABIST

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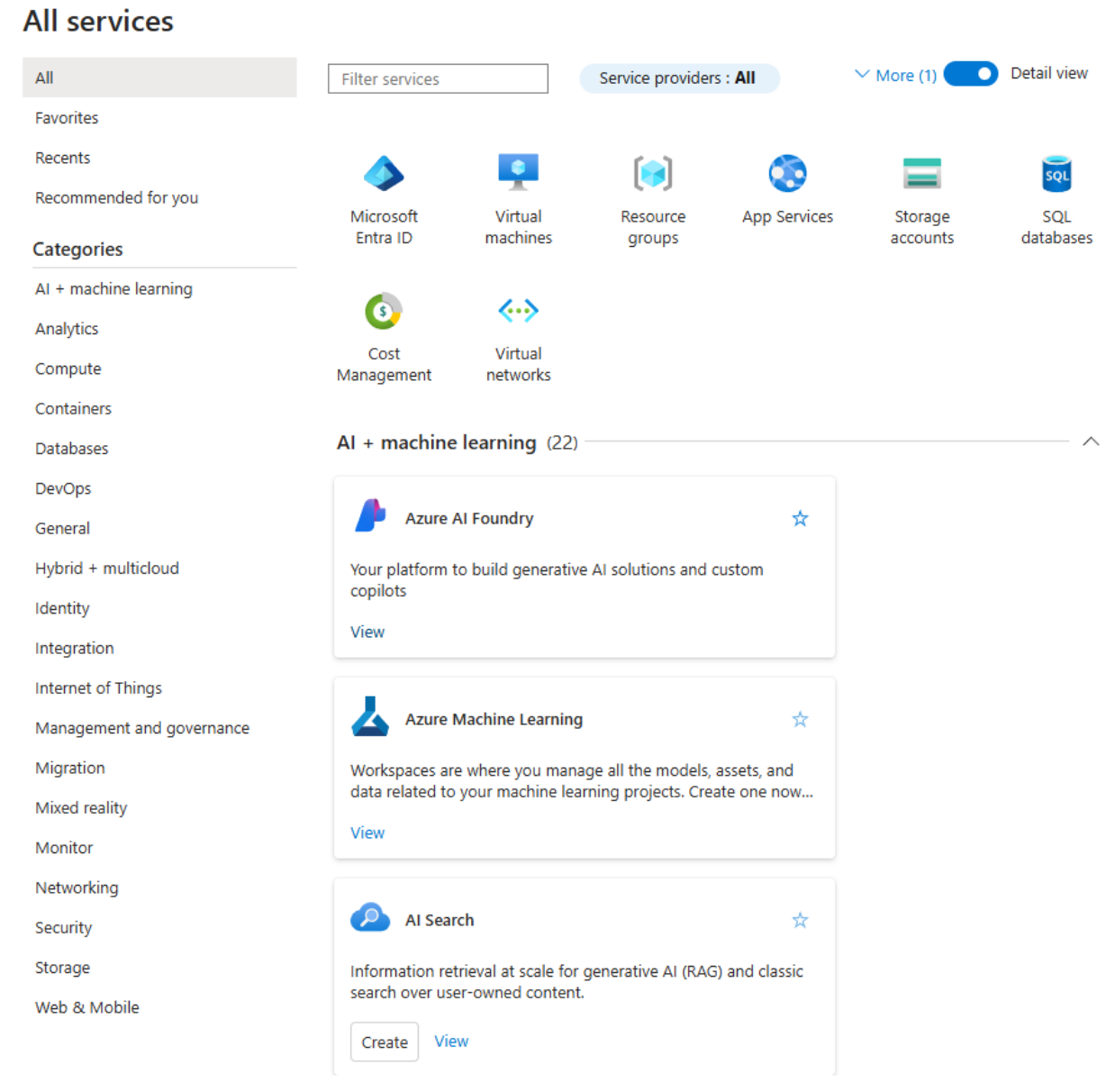
Registration Id	2112241
Section	BSCS 8th A
Course	Introduction to DevOps
Instructor	Tariq Khan Ghouri

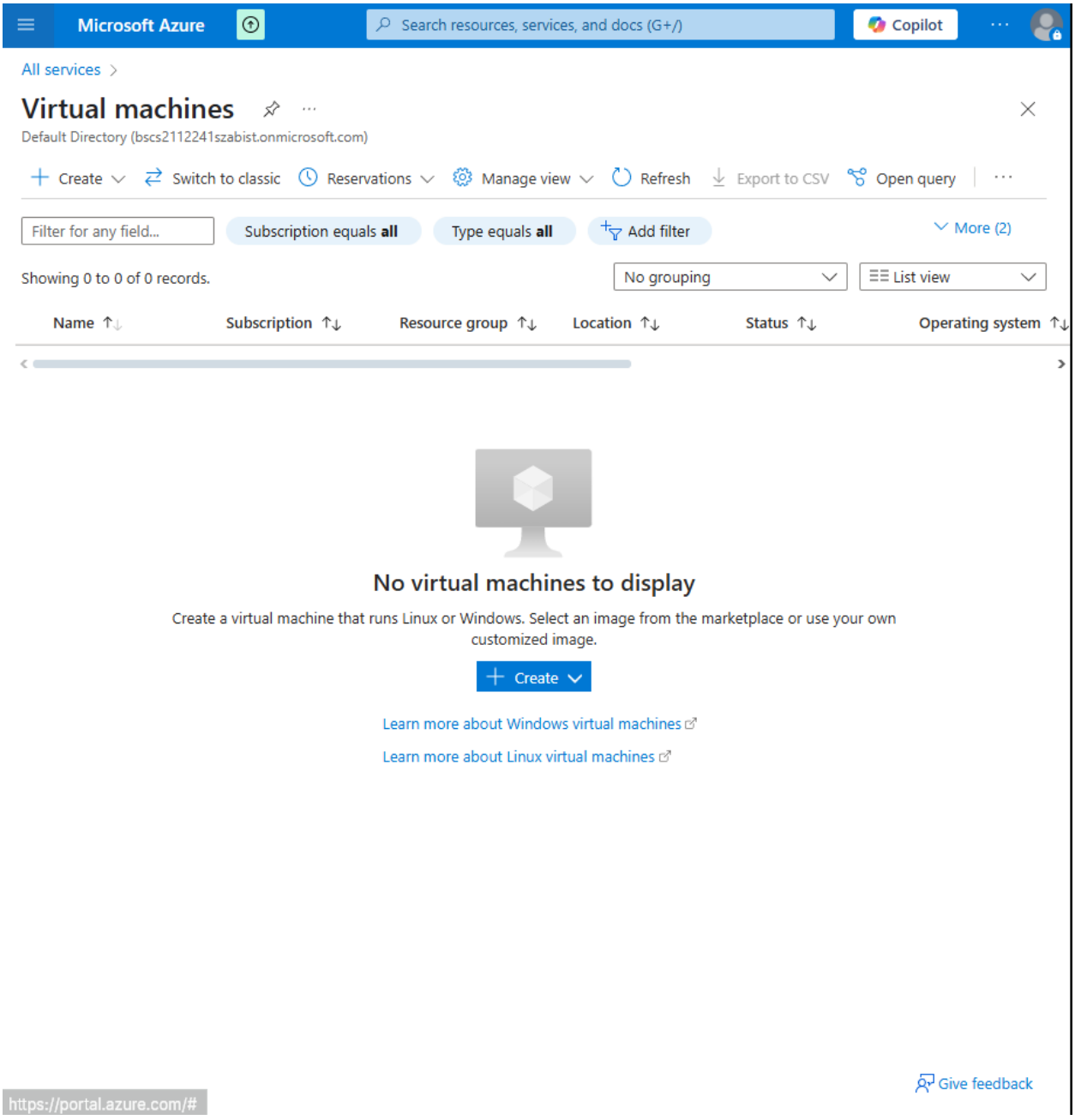
DevOps

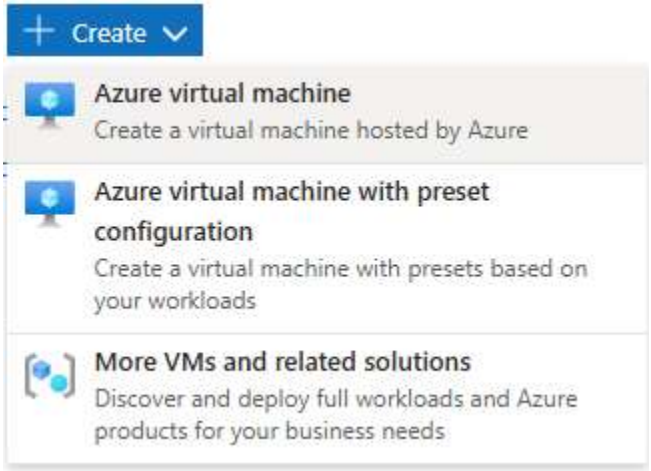
LAB01

By Umer Amir _ 2112241

TASK 1:




Microsoft Azure
Search resources, services, and docs (G+/)
Copilot
All services
Virtual machines
Default Directory (bscs2112241szabist.onmicrosoft.com)
Create
Switch to classic
Reservations
Manage view
Refresh
Export to CSV
Open query
Filter for any field...
Subscription equals all
Type equals all
Add filter
More (2)
Showing 0 to 0 of 0 records.
No grouping
List view
Name
Subscription
Resource group
Location
Status
Operating system
No virtual machines to display
Create a virtual machine that runs Linux or Windows. Select an image from the marketplace or use your own customized image.
Create
Learn more about Windows virtual machines
Learn more about Linux virtual machines
Give feedback
https://portal.azure.com/#


Create
Azure virtual machine
Create a virtual machine hosted by Azure
Azure virtual machine with preset configuration
Create a virtual machine with presets based on your workloads
More VMs and related solutions
Discover and deploy full workloads and Azure products for your business needs

Home >

Create a virtual machine ...

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 workl

Create a virtual machine that runs Linux or Windows. Select an image from Azure marketplace or use your own customized image. Complete the Basics tab then Review + create to provision a virtual machine with default parameters or review each tab for full customization. Learn more

This subscription may not be eligible to deploy VMs of certain sizes in certain regions.

Project details

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

Subscription * : Azure subscription 1

Resource group * : (New) myVM_group

Create new

Instance details

Virtual machine name * : myVM

Region * : (US) East US

Availability options : No infrastructure redundancy required

Security type : Trusted launch virtual machines

Configure security features

Trusted launch virtual machine is required when using 1P Gallery images.

Image * : Windows Server 2019 Datacenter - x64 Gen2 (free services eligible)

See all images | Configure VM generation

VM architecture :

- Arm64
- x64

Arm64 is not supported with the selected image.

You are in the free trial period. Costs associated with this VM can be covered by any remaining credits on your subscription.
Learn more

Size * ⓘ
Standard_D2s_v3 - 2 vcpus, 8 GiB memory ($137.24/month)
See all sizes

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

Administrator account

Username * ⓘ
azureuser

Password *
••••••••••••

Confirm password *
••••••••••••

Inbound port rules

Select which virtual machine network ports are accessible from the public internet. You can specify more limited or granular network access on the Networking tab.

Public inbound ports * ⓘ
- ○ None
- ◉ Allow selected ports

Select inbound ports *
HTTP (80), RDP (3389)

This will allow all IP addresses to access your virtual machine. This is only recommended for testing. Use the Advanced controls in the Networking tab to create rules to limit inbound traffic to known IP addresses.

< Previous | Next : Disks > | Review + create

Give feedback

Basics Disks **Networking** Management Monitoring Advanced Tags Review + create

Define network connectivity for your virtual machine by configuring network interface card (NIC) settings. You can control ports, inbound and outbound connectivity with security group rules, or place behind an existing load balancing solution.
Learn more

Network interface

When creating a virtual machine, a network interface will be created for you.

Virtual network * : (new) myVM-vnet
Create new

Subnet * : (new) default (10.0.0.0/24)

Public IP : (new) myVM-ip
Create new

NIC network security group :
- None
- Basic
- Advanced

Public inbound ports * :
- None
- Allow selected ports

Select inbound ports * : HTTP (80), RDP (3389)

This will allow all IP addresses to access your virtual machine. This is only recommended for testing. Use the Advanced controls in the Networking tab to create rules to limit inbound traffic to known IP addresses.

Delete public IP and NIC when VM is deleted

Basics Disks Networking Management **Monitoring** Advanced Tags Review + create

Configure monitoring options for your VM.

Alerts

Enable recommended alert rules

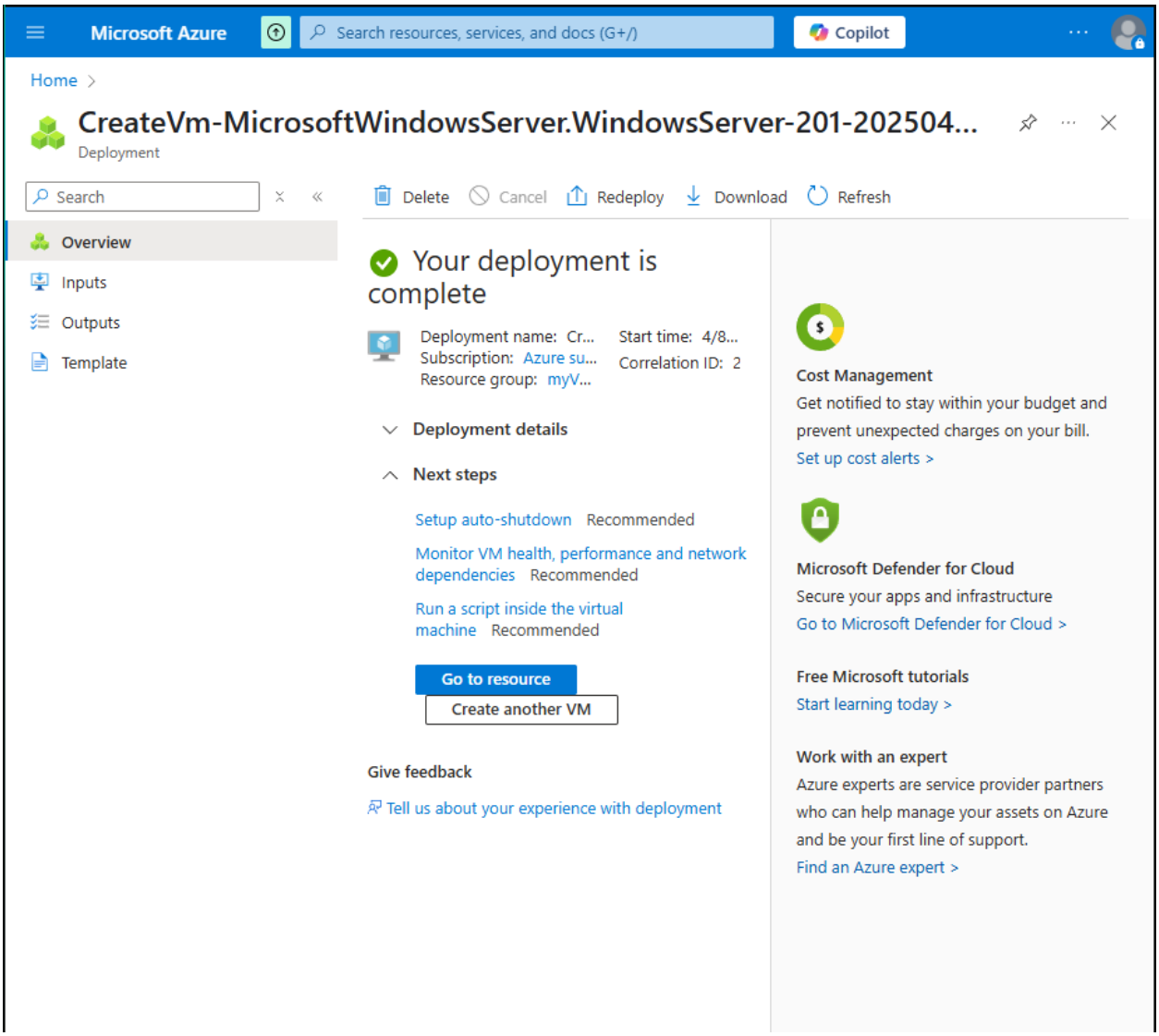
Diagnostics

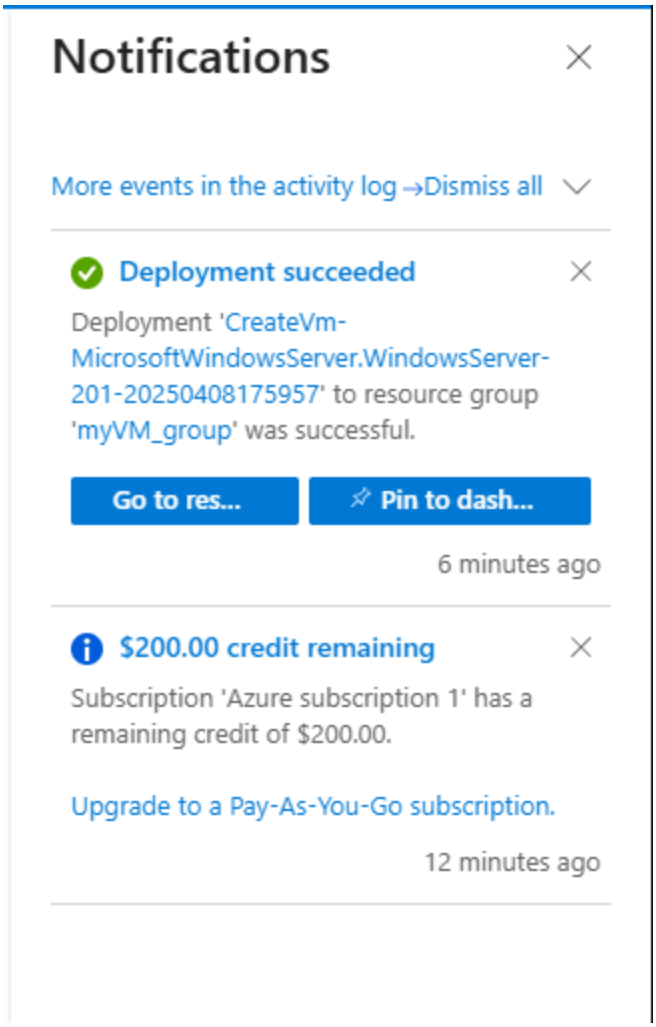
Boot diagnostics :
- Enable with managed storage account (recommended)
- Enable with custom storage account
- Disable

Enable OS guest diagnostics

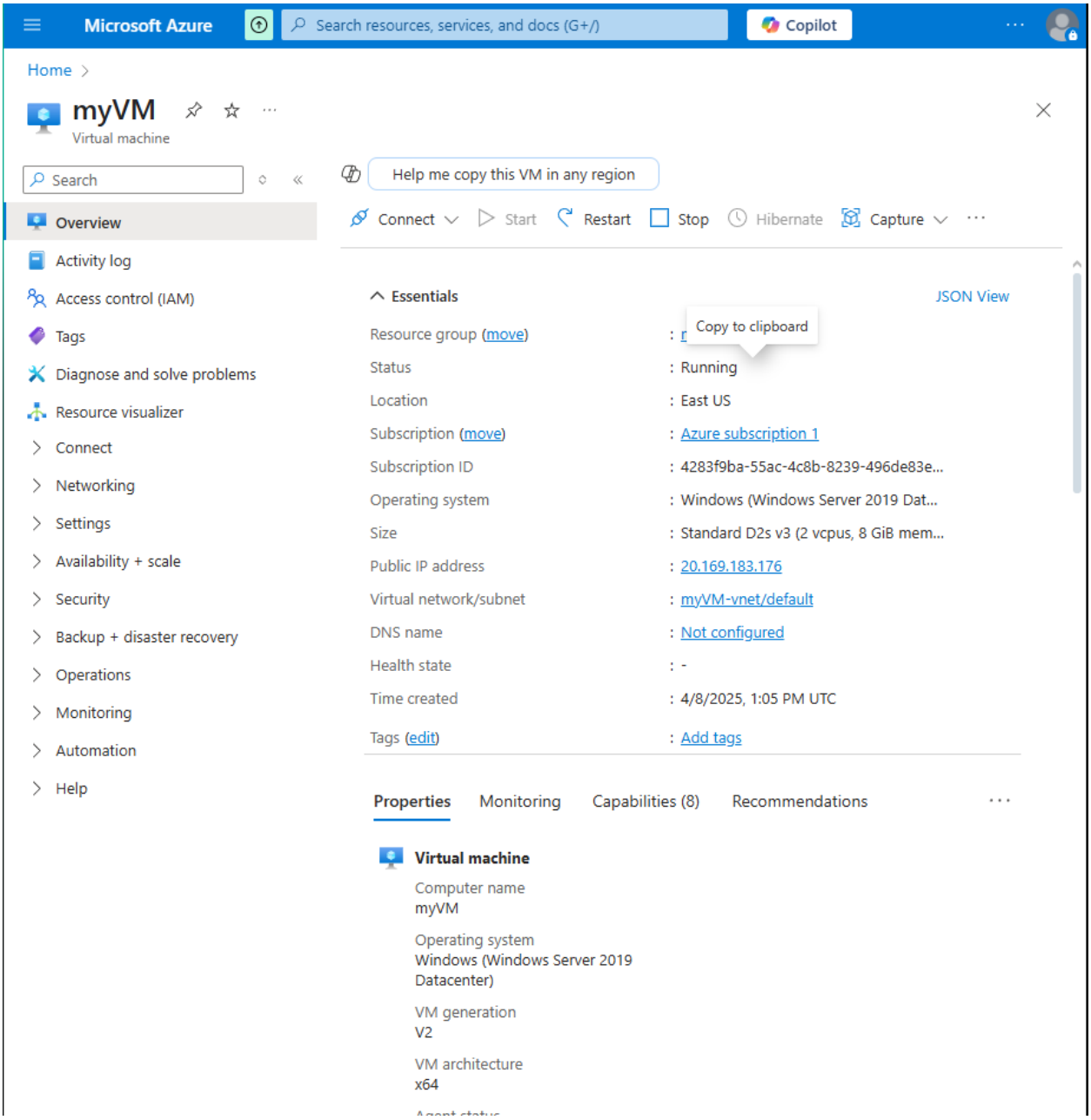
Health

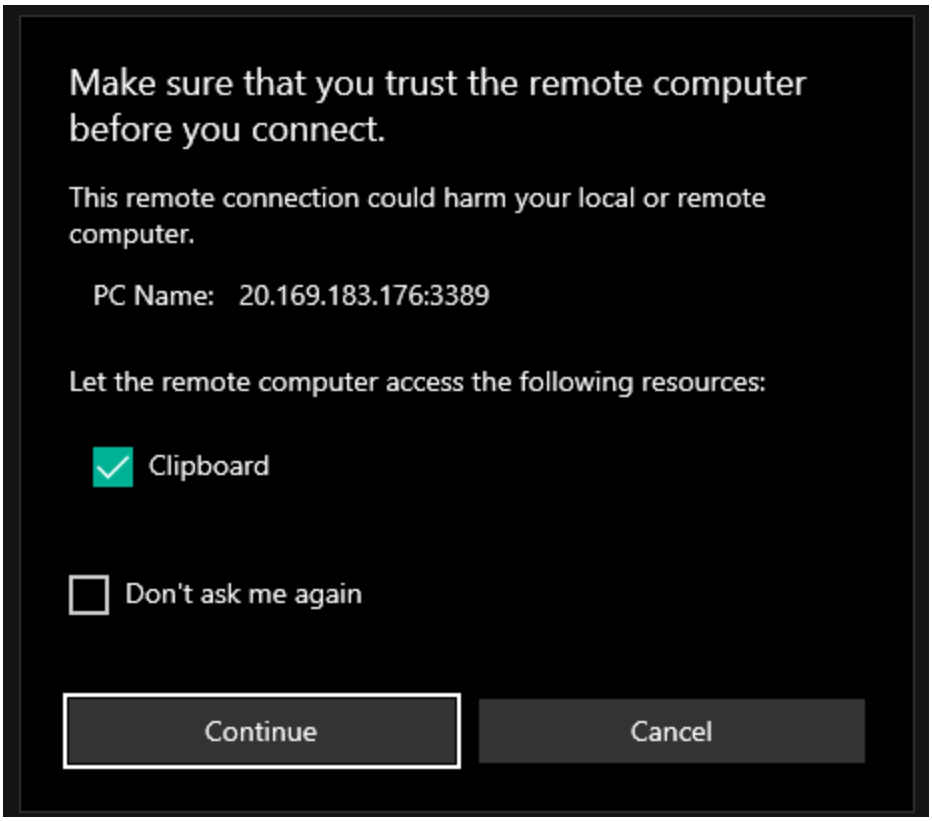
Enable application health monitoring

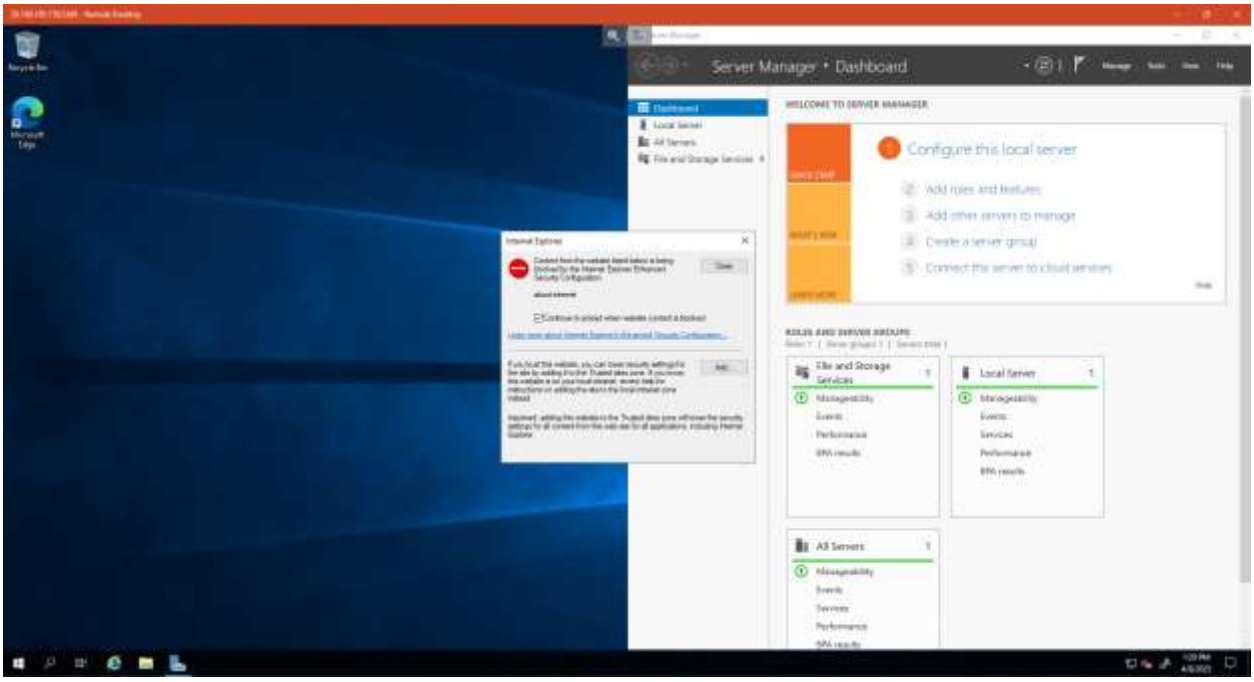

Microsoft Azure
Search resources, services, and docs (G+/)
Copilot
Home
CreateVm-MicrosoftWindowsServer.WindowsServer-201-202504...
Deployment
Search
Overview
Inputs
Outputs
Template
Delete
Cancel
Redeploy
Download
Refresh
Your deployment is complete
Deployment name: Cr...
Subscription: Azure su...
Resource group: myV...
Start time: 4/8...
Correlation ID: 2
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
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 >


Notifications
More events in the activity log →Dismiss all
Deployment succeeded
Deployment 'CreateVm-MicrosoftWindowsServer.WindowsServer-201-20250408175957' to resource group 'myVM_group' was successful.
Go to res...
Pin to dash...
6 minutes ago
$200.00 credit remaining
Subscription 'Azure subscription 1' has a remaining credit of $200.00.
Upgrade to a Pay-As-You-Go subscription.
12 minutes ago

TASK 2:

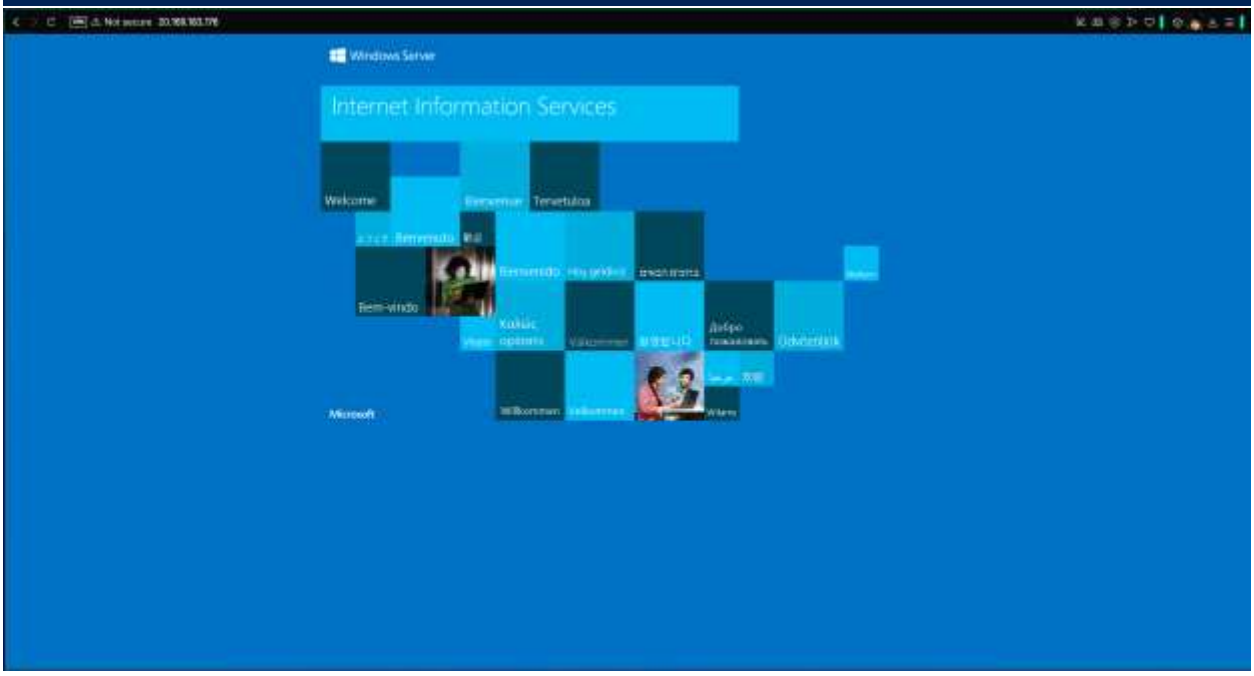

Microsoft Azure
Search resources, services, and docs (G+/)
Copilot
Home
myVM
Virtual machine
Search
Overview
Activity log
Access control (IAM)
Tags
Diagnose and solve problems
Resource visualizer
Connect
Networking
Settings
Availability + scale
Security
Backup + disaster recovery
Operations
Monitoring
Automation
Help
Help me copy this VM in any region
Connect
Start
Restart
Stop
Hibernate
Capture
Essentials
JSON View
Resource group (move) : r
Copy to clipboard
Status : Running
Location : East US
Subscription (move) : Azure subscription 1
Subscription ID : 4283f9ba-55ac-4c8b-8239-496de83e...
Operating system : Windows (Windows Server 2019 Dat...
Size : Standard D2s v3 (2 vcpus, 8 GiB mem...
Public IP address : 20.169.183.176
Virtual network/subnet : myVM-vnet/default
DNS name : Not configured
Health state : -
Time created : 4/8/2025, 1:05 PM UTC
Tags (edit) : Add tags
Properties
Monitoring
Capabilities (8)
Recommendations
Virtual machine
Computer name
myVM
Operating system
Windows (Windows Server 2019 Datacenter)
VM generation
V2
VM architecture
x64


Make sure that you trust the remote computer before you connect.
This remote connection could harm your local or remote computer.
PC Name: 20.169.183.176:3389
Let the remote computer access the following resources:
Clipboard
Don't ask me again
Continue
Cancel


Server Manager • Dashboard
Configure this local server

TASK 3:

20.169.183.176:3389 - Remote Desktop

Administrator: Windows PowerShell

```
Windows PowerShell
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PS C:\Users\azureuser> Install-WindowsFeature -name Web-Server -IncludeManagementTools

Success Restart Needed Exit Code      Feature Result
------- -------------- ---------      --------------
True    No             Success        {Common HTTP Features, Default Document, D...


PS C:\Users\azureuser>
```