

# Introduction To Cloud Computing

## LAB 06

Name: Misha Sohail

ID: 2280149

BS-SE 7B

Microsoft Azure

Search resources, services, and docs (G+/I)

Copilot

bsse2280149@szabist.pk  
DEFAULT DIRECTORY (BSSE22801...

Home > Compute infrastructure | Virtual machines >

Create a virtual machine

Help me choose the right VM size for my workloadHelp me create a VM optimized for high availabilityHelp me create a low cost VM

Help me create a low cost VMHelp me create a VM optimized for high availabilityHelp me choose the right VM size for my workload

BasicsDisksNetworkingManagementMonitoringAdvancedTagsReview + create

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 for Students

< PreviousNext : Disks >Review + create

Give feedback

Microsoft Azure

Search resources, services, and docs (G+/I)

Copilot

bsse2280149@szabist.pk  
DEFAULT DIRECTORY (BSSE22801...

Home > Compute infrastructure | Virtual machines >

Create a virtual machine

Help me choose the right VM size for my workloadHelp me create a VM optimized for high availabilityHelp me create a low cost VM

Help me create a low cost VMHelp me create a VM optimized for high availabilityHelp me choose the right VM size for my workload

Edit subnet172.16.0.0 - 172.16.0.255 (256 addresses)

Public IP

Create new

NIC network security group

☒ None  
☐ Basic  
☐ Advanced

All ports on this virtual machine may be exposed to the public internet. This is a security risk. Use a network security group to limit public access to specific ports. You can also select a subnet that already has network security groups defined or remove the public IP address.

Delete public IP and NIC when VM is deleted

< PreviousNext : Management >Review + create

Give feedback

Microsoft Azure

Search resources, services, and docs (G+/)

Copilot

bsse2280149@szabist.pk  
DEFAULT DIRECTORY (BSSE22801...

Home > Compute infrastructure | Virtual machines >

Create a virtual machine

Help me choose the right VM size for my workloadHelp me create a VM optimized for high availabilityHelp me create a low cost VM

Help me create a low cost VMHelp me create a VM optimized for high availabilityHelp me choose the right VM size for my workload

BasicsDisksNetworkingManagementMonitoringAdvancedTagsReview + 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

< PreviousNext : Advanced >Review + create

Give feedback

Microsoft Azure

Search resources, services, and docs (G+/)

Copilot

bsse2280149@szabist.pk  
DEFAULT DIRECTORY (BSSE22801...

Home > Compute infrastructure | Virtual machines >

Create a virtual machine

Help me choose the right VM size for my workloadHelp me create a VM optimized for high availabilityHelp me create a low cost VM

Validation passed

Help me create a low cost VMHelp me create a VM optimized for high availabilityHelp me choose the right VM size for my workload

BasicsDisksNetworkingManagementMonitoringAdvancedTagsReview + create

Price

1 X Standard D2s v3  
by Microsoft  
Terms of use | Privacy policy

Subscription credits apply

0.1970 USD/hr  
Pricing for other VM sizes

TERMS

By clicking "Create" I (a) agree to the legal terms and privacy statement(s) associated with the Marketplace offering(s) listed

< PreviousNext >Create

Download a template for automationGive feedback

Microsoft Azure

Search resources, services, and docs (G+/)

Copilot

bsse2280149@szabist.pk  
DEFAULT DIRECTORY (BSSE22801...

Home >

CreateVm-MicrosoftWindowsServer.WindowsServer-201-20251107211647 | Overview

Deployment

Search

DeleteCancelRedeployDownloadRefresh

Overview

Inputs

Outputs

Template

Your deployment is complete

Deployment name : CreateVm-MicrosoftWindows... Start time : 11/7/2025, 9:20:08 PM

Subscription : Azure for Students Correlation ID : 6ce0f108-8ee8-4ba4-991f-5b...

Resource group : mn-rg

Deployment details

Next steps

Set up auto-shutdown Recommended

Monitor VM health, performance, and network dependencies Recommended

Run a script inside the virtual machine Recommended

Go to resourceCreate another VM

Cost management

Get notified to stay within your budget and prevent unexpected charges on your bill.

Set up cost alerts >

Give feedback

Add or remove favorites by pressing Ctrl+Shift+F

Microsoft Azure Search resources, services, and docs (G+/) Copilot bsse2280149@szabist.pk DEFAULT DIRECTORY (BSSE22801...

Home > CreateVm-MicrosoftWindowsServer.WindowsServer-201-20251107211647 | Overview > SimpleWinVM

## SimpleWinVM | Network settings

Virtual machine

Search List all my network interfaces for this VM +2

Access control (IAM) Tags Diagnose and solve problems Resource visualizer Connect > Networking

Network settings Load balancing Application security groups Network manager Settings

Add or remove favorites by pressing Ctrl+Shift+F

List all my network interfaces for SimpleWinVM. What are the requirements for attaching or detaching a network interface?

Attach network interface Detach network interface View topology Troubleshoot Refresh Give feedback

Network interface / IP configuration simplewinvm77\_z2 (primary) / ipconfig1 (primary)

Essentials

Network interface	Load balancers
simplewinvm77_z2	0 (Configure)
Virtual network / subnet	Application security groups
vnet-centralindia / snet-centralindia-1	0 (Configure)
Public IP address	Network security group
98.70.33.50	-
Private IP address	Accelerated networking
172.16.0.4	Enabled

Microsoft Azure Search resources, services, and docs (G+/) Copilot bsse2280149@szabist.pk DEFAULT DIRECTORY (BSSE22801...

All services > Network foundation

## Network foundation | Network security groups

Preview

Search + Create Manage view Refresh Export to CSV Open query Assign tags Group by none

You are viewing a new version of Browse experience. Click here to access the old experience.

Filter for any field... Subscription equals all Resource Group equals all Location equals all Add filter

No network security groups to display

Create a network security group with rules to filter inbound traffic to, and outbound traffic from, virtual machines and subnets.

+ Create

Showing 1 - 0 of 0. Display count: auto Give feedback

Add or remove favorites by pressing Ctrl+Shift+F

Microsoft Azure Search resources, services, and docs (G+/) Copilot bsse2280149@szabist.pk DEFAULT DIRECTORY (BSSE22801...

All services > Network foundation | Network security groups >

## Create network security group

Basics Tags Review + create

Project details

Subscription \* Azure for Students

Resource group \* (New) Lab06-RG Create new

Instance details

Name \* myNSGSecure

Region \* Central India

Review + create < Previous Next: Tags > Download a template for automation

Microsoft Azure

Search resources, services, and docs (G+)

Copilot

bsse2280149@szabist.pk  
DEFAULT DIRECTORY (BSSE22801...

All services > Network foundation | Network security groups >

Create network security group ...

Validation passed

Basics Tags Review + create

Basics

Subscription

Resource group

Region

name

Azure for Students

(new) Lab06-RG

Central India

myNSGSecure

Tags

None

Create

< Previous

Next >

Download a template for automation

Microsoft Azure

Search resources, services, and docs (G+)

Copilot

bsse2280149@szabist.pk  
DEFAULT DIRECTORY (BSSE22801...

All services >

CreateNetworkSecurityGroupBladeV2-20251107212525 | Overview ...

Deployment

Search

Delete Cancel Redeploy Download Refresh

Overview

Inputs

Outputs

Template

✓ Your deployment is complete

Deployment name : CreateNetworkSecurityGroupBl... Start time : 11/7/2025, 9:28:30 PM

Subscription : Azure for Students Correlation ID : b2cfa65-68be-4e58-b044-072...

Resource group : Lab06-RG

> Deployment details

Next steps

Go to resource

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 >

Microsoft Azure

Search resources, services, and docs (G+)

Copilot

bsse2280149@szabist.pk  
DEFAULT DIRECTORY (BSSE22801...

All services > CreateNetworkSecurityGroupBladeV2-20251107212525 | Overview > myNSGSecure

myNSGSecure | Network interfaces ☆ ...

Network security group

Search

Associate Refresh Dissociate

Search network interfaces

Name ↑↓ Public IP address ↑↓

No results.

Associate network interface

myNSGSecure

Network interface associations \* ⓘ

simplewinvm77\_z2

OK

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

bsse2280149@szabist.pk  
DEFAULT DIRECTORY (BSSE22801...)

All services > CreateNetworkSecurityGroupBladeV2-20251107212525 | Overview > myNSGSecure

### myNSGSecure | Network interfaces

Network security group

Search

Tags

Diagnose and solve problems

Resource visualizer

Settings

- Inbound security rules
- Outbound security rules
- Network interfaces**
- Subnets
- Properties
- Locks

Monitoring

Automation

Add or remove favorites by pressing Ctrl+Shift+F

Associate Refresh Dissociate

Search network interfaces

Name ↑↓	Public IP address ↑↓	Private IP address ↑↓	Virtual machine ↑↓
simplewinvm77_z2	98.70.33.50	172.16.0.4	SimpleWinVM

Copilot

Give feedback

## Task 3: Configure Inbound Security Rule (Allow RDP)

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

bsse2280149@szabist.pk  
DEFAULT DIRECTORY (BSSE22801...)

All services > Resource Manager | All resources >

### SimpleWinVM

Virtual machine

Help me copy this VM in any region

Manage this VM with Azure CLI

Search

Help me copy this VM in any region

Connect Start Restart Stop Hibernate Capture Delete Refresh Open in mobile Feedback

#### Essentials

Resource group <a href="#">(move)</a>	Operating system
<a href="#">MN-RG</a>	Windows (Windows Server 2019 Datacenter)
Status	Size
Running	Standard D2s v3 (2 vcpus, 8 GiB memory)
Location	Primary NIC public IP
Central India (Zone 2)	<a href="#">98.70.33.50</a>
Subscription <a href="#">(move)</a>	<a href="#">1 associated public IPs</a>
<a href="#">Azure for Students</a>	Virtual network/subnet
Subscription ID	<a href="#">vnet-centralindia/snet-centralindia-1</a>
504b0a3b-5612-41db-b87d-61c0d67009e3	DNS name
Availability zone	<a href="#">Not configured</a>
2	Health state
	-

JSON View

Add or remove favorites by pressing Ctrl+Shift+F

Microsoft Azure | Search resources, services, and docs (G+/I) | Copilot | bsse2280149@szabist.pk | DEFAULT DIRECTORY (BSSE22801...)

All services > Resource Manager | All resources > SimpleWinVM

### SimpleWinVM | Connect

Virtual machine

Search

- Overview
- Activity log
- Access control (IAM)
- Tags
- Diagnose and solve problems
- Resource visualizer
- Connect
- Connect
- Bastion
- Windows Admin Center
- Networking

Remote Desktop Connection

Remote Desktop can't connect to the remote computer for one of these reasons:

- 1) Remote access to the server is not enabled
- 2) The remote computer is turned off
- 3) The remote computer is not available on the network

Make sure the remote computer is turned on and connected to the network, and that remote access is enabled.

OK Help

Source

Source IP address

Destination VM

VM IP address

Public IP | 98.70.33.50

VM port

3389

Connection prerequisites

VM access

Check inbound NSG rules

Check access

Connect using RDP file

Download and open file to connect

Download RDP file

Microsoft Azure | Search resources, services, and docs (G+/I) | Copilot | bsse2280149@szabist.pk | DEFAULT DIRECTORY (BSSE22801...)

All services > Resource Manager | All resources > SimpleWinVM

### SimpleWinVM | Network settings

Virtual machine

network

- Connect
- Connect
- Networking
- Network settings
- Load balancing
- Network manager

What are the requirements for attaching and detaching network interfaces? +2

Network security group **myNSGSecure** (attached to networkInterface: simplewinvm77\_z2)

Impacts 0 subnets, 1 network interfaces

Create port rule

Search rules

Source == all Destination == all Protocol == all Action == all Port == all

Prio...	Name	Port	Protocol	Source	Destination	Ac
Inbound port rules (3)						
65000	AllowVnetInBound		Any	Any	VirtualNetwork	VirtualNetwork
65001	AllowAzureLoadBalancerInB...		Any	Any	AzureLoadBalancer	Any
65500	DenyAllInBound		Any	Any	Any	Any
Outbound port rules (3)						

Type here to search

22°C

10:06 PM 11/7/2025

Microsoft Azure | Search resources, services, and docs (G+/I) | Copilot | bsse2280149@szabist.pk | DEFAULT DIRECTORY (BSSE22801...)

All services > Resource Manager | All resources > SimpleWinVM

### SimpleWinVM | Network settings

Virtual machine

network

- Connect
- Connect
- Networking
- Network settings
- Load balancing
- Network manager

What are the requirements for attaching and detaching network interfaces?

Network security group **myNSGSecure** (attached to networkInterface: simplewinvm77\_z2)

Impacts 0 subnets, 1 network interfaces

Create port rule

Search rules

Source == all Destination == all Protocol == all Action == all Port == all

Prio...	Name	Port	Protocol	Source	Destination	Ac
Inbound port rules (3)						
65000	AllowVnetInBound		Any	Any	VirtualNetwork	VirtualNetwork
65001	AllowAzureLoadBalancerInB...		Any	Any	AzureLoadBalancer	Any
65500	DenyAllInBound		Any	Any	Any	Any
Outbound port rules (3)						

### Add inbound security rule

myNSGSecure

Source

Any

Source port ranges \*

\*

Destination

Any

Service

Custom

Destination port ranges \*

3389

Protocol

Any

TCP

Add Cancel

Give feedback

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

bsse2280149@szabist.pk

SimpleWinVM | Network settings

Virtual machine

network

Connect

Connect

Networking

Network settings

Load balancing

Network manager

Search rules

Source == all Destination == all Protocol == all Action == all Port == all

Prio...	Name	Port	Protocol	Source	Destination	Ac
Inbound port rules (4)						
300	AllowRDP	3389	TCP	Any	Any	
65000	AllowVnetInBound	Any	Any	VirtualNetwork	VirtualNetwork	
65001	AllowAzureLoadBalancerInB...	Any	Any	AzureLoadBalancer	Any	
65500	DenyAllInBound	Any	Any	Any	Any	
Outbound port rules (3)						

Add or remove favorites by pressing Ctrl+Shift+F

WhatsApp

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

bsse2280149@szabist.pk

SimpleWinVM | Connect

Virtual machine

Search

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Resource visualizer

Connect

Connect

Bastion

Windows Admin Center

Networking

Windows Security

Enter your credentials

These credentials will be used to connect to 98.70.33.50.

azureuser

Remember me

More choices

OK Cancel

Connect using RDP file

Download and open file to connect

Download RDP file

Username

azureuser

Forgot password? Reset password

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

bsse2280149@szabist.pk

SimpleWinVM | Connect

Virtual machine

Search

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Resource visualizer

Connect

Connect

Bastion

Windows Admin Center

Networking

Native RDP

Source machine

Source machine OS

Source IP address

Destination VM

VM IP address

VM port

Connection prerequisites

VM access

Check access

Connect using RDP file

Download and open file to connect

Download RDP file

Username

azureuser

Forgot password? Reset password

Remote Desktop Connection

The identity of the remote computer cannot be verified. Do you want to connect anyway?

The remote computer could not be authenticated due to problems with its security certificate. It may be unsafe to proceed.

Certificate name

Name in the certificate from the remote computer: SimpleWinVM

Certificate errors

The following errors were encountered while validating the remote computer's certificate:

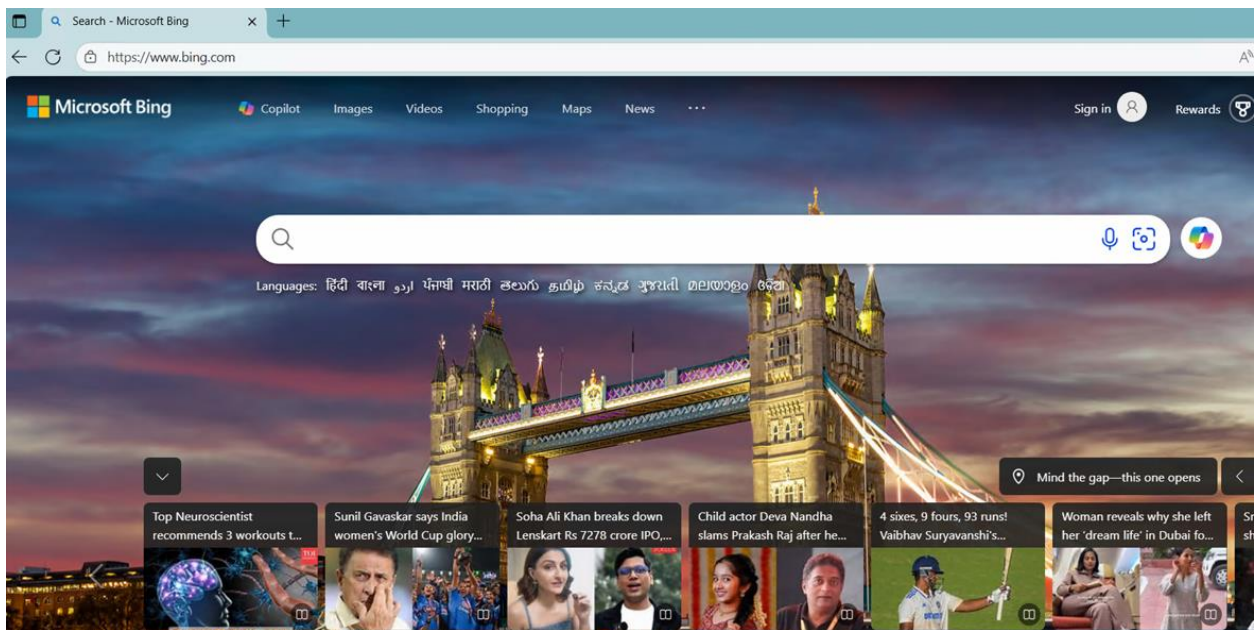
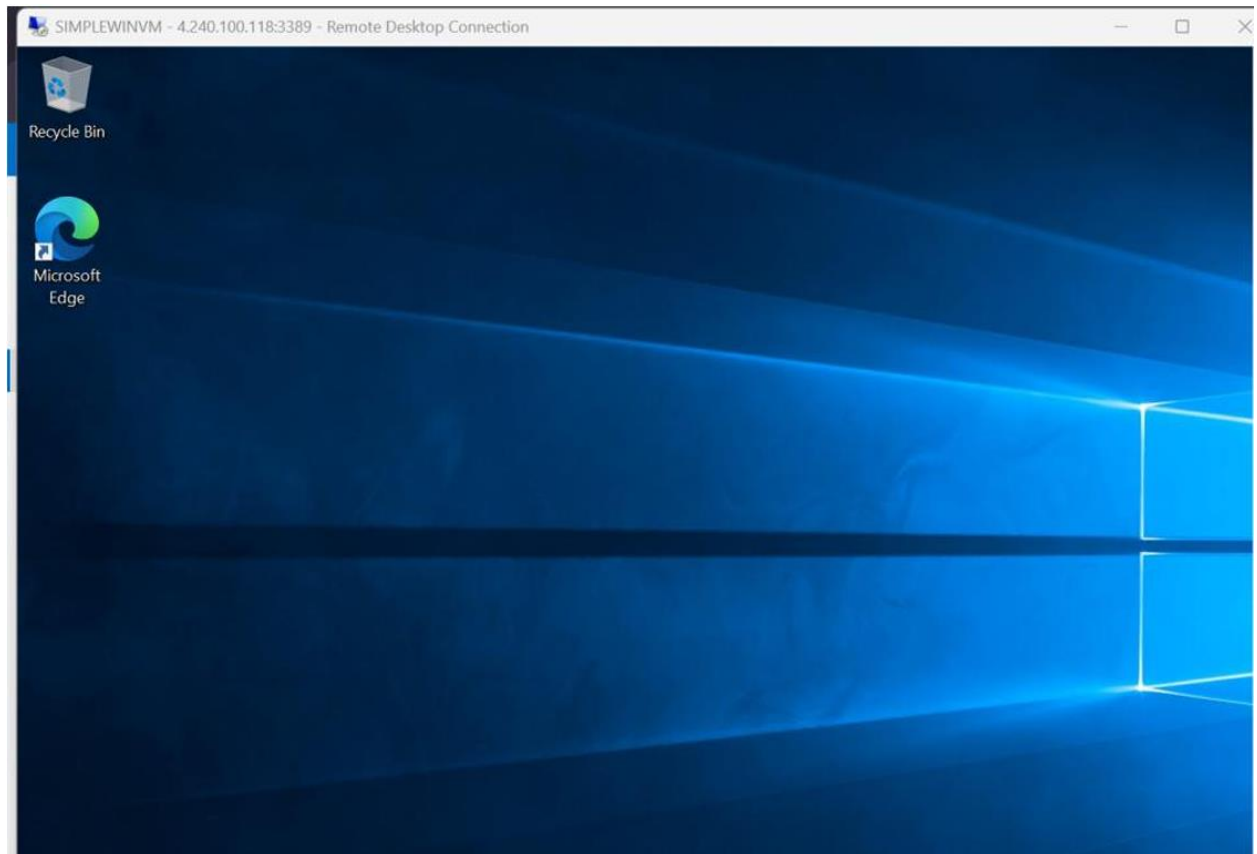
The certificate is not from a trusted certifying authority.

Do you want to connect despite these certificate errors?

Don't ask me again for connections to this computer

View certificate ... Yes No









## Hmmm... can't reach this page

**www.microsoft.com** took too long to respond

**Try:**

- Checking the connection
- [Checking the proxy and the firewall](#)

ERR\_CONNECTION\_TIMED\_OUT

Refresh