



Microsoft Azure Project

By

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Project Title:

Doctor's Appointment Application Virtual Networking Through Azure Administration.

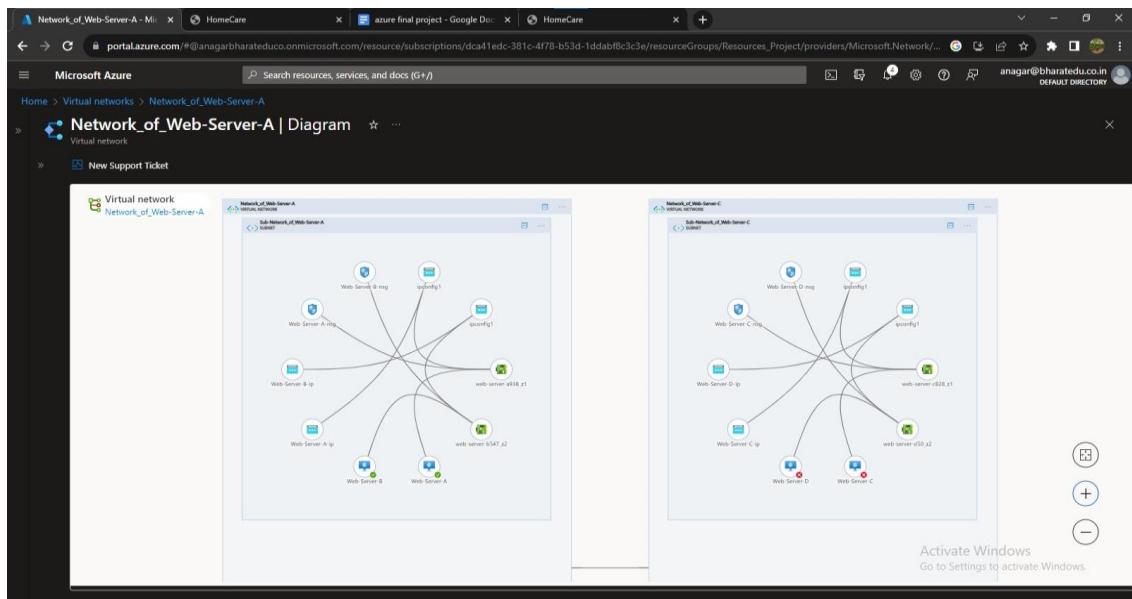
Problem Statement:

Connection of Doctor Appointment Application Situated in Different Regions, Globally through VPN Connection and Peering Between Virtual Networks.

Project Description:

- This Project includes Various Azure instances and Services, Azure Virtual Networks, Azure Virtual Machines, Azure Portal, Azure VPN Gateway, Availability Zones, Windows and Linux images etc.
- The Aim of this Project is to Connect Doctor's Appointment Application Which is Situated in Different Regions Globally, through Virtual Private Network Gateway and Peering between their Networks.

Digram



. First create a virtual Machine(A)

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Microsoft Azure samudesa3009@gmail.com

Home > Virtual machines > Create a virtual machine

VM architecture: x64 Arm64
Arm64 is not supported with the selected image.

Run with Azure Spot discount:

Size: Standard_D2s_v3 - 2 vcpus, 8 GiB memory (£11,695.36/month) [See all sizes](#)

Administrator account:

Username: Samiksha_Desai 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: Allow selected ports [None](#) [Select inbound ports](#) [HTTPS \(443\), RDP \(3389\)](#)

Select inbound ports: [HTTPS \(443\), RDP \(3389\)](#)

[Review + create](#) [Next : Disks >](#)

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Networking

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 port 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: [\(new\) Web-Server-A-vnet](#) [Create new](#)

Subnet: [\(new\) default \(10.0.0.0/24\)](#)

Public IP: [\(new\) Web-Server-A-ip](#) [Create new](#)

NIC network security group: Basic None Advanced

Public inbound ports: Allow selected ports [None](#) [Select inbound ports](#) [HTTPS \(443\), RDP \(3389\)](#)

Name: Network_of_Web-Server-A

Address space

The virtual network's address space, specified as one or more address prefixes in CIDR notation (e.g. 192.168.1.0/24).

Address range	Address	Overlap
<input type="checkbox"/> 172.22.0.0/16	172.22.0.0 - 172.22.255.255 (65536 addresses)	None
<input type="checkbox"/>	(0 Addresses)	

Subnets

The subnet's address range in CIDR notation. It must be contained by the address space of the virtual network.

Subnet name	Address range	Addresses
<input type="checkbox"/> Sub-Network_of_Web-Server-A	172.22.0.0/24	172.22.0.0 - 172.22.0.255 (256 addresses)
<input type="checkbox"/>	(0 Addresses)	

[OK](#) [Discard](#)

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Advanced

Public inbound ports: Allow selected ports [None](#)

Select inbound ports: [HTTPS \(443\), 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:

Enable accelerated networking:

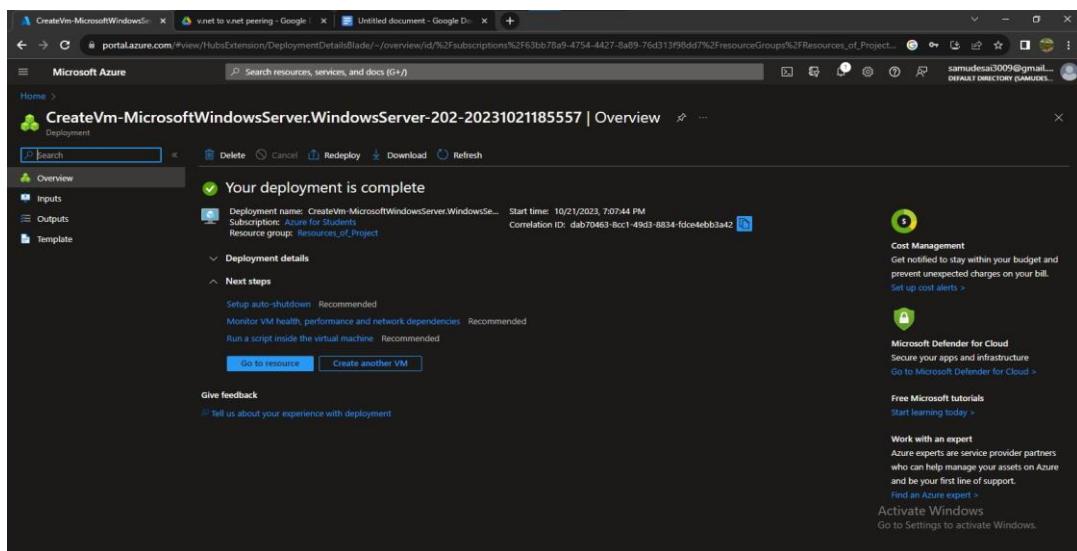
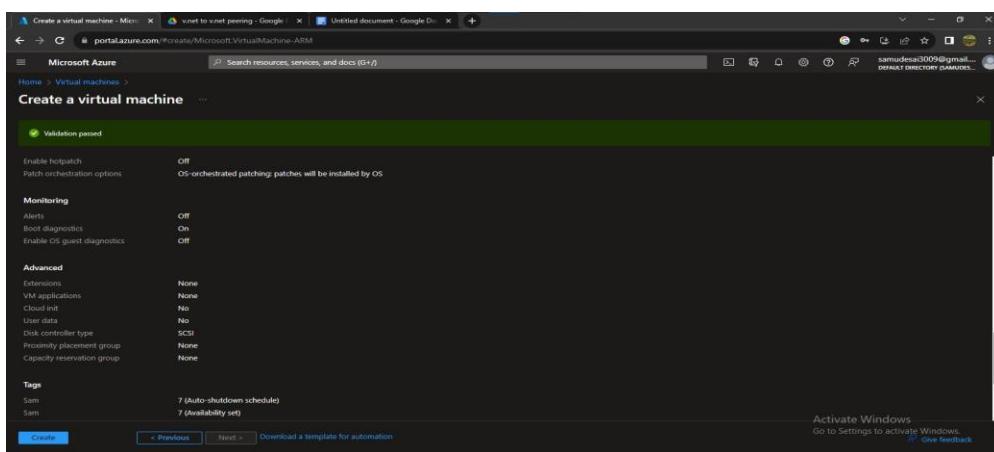
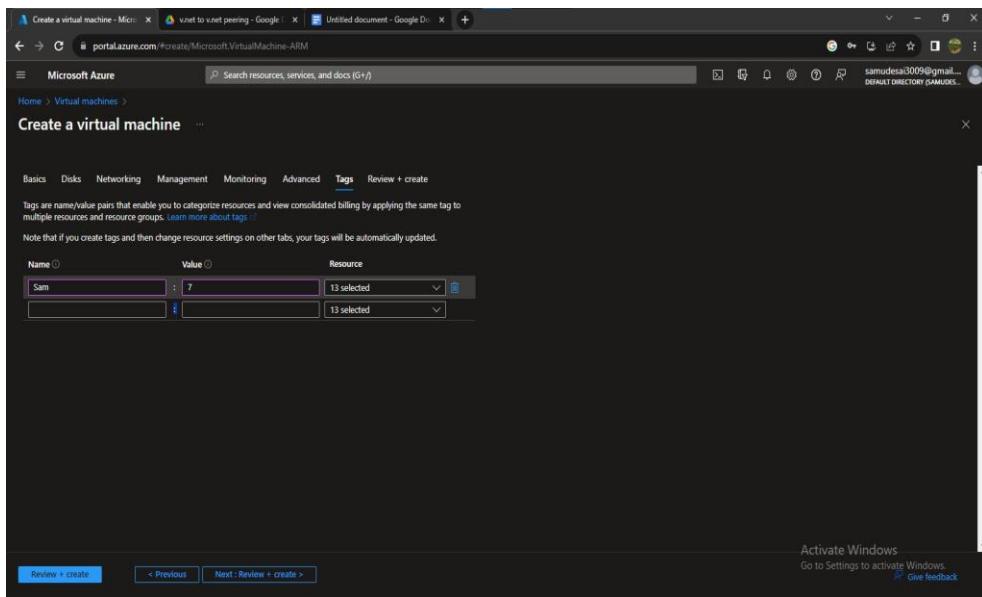
Load balancing

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.

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create a 2nd virtual Machine (B)

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Project details

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

Subscription: Resource group:

Instance details

Virtual machine name: Region: Availability options: Availability zone: You can now select multiple zones. Selecting multiple zones will create one VM per zone. [Learn more](#)

Security type: Configure security features

Image: See all images | Configure VM generation

VM architecture:

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VM architecture: Arm64 is not supported with the selected image.

Run with Azure Spot discount:

Size: See all sizes

Administrator account

Username: 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: Select inbound ports:

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Microsoft Azure

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Networking

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: Create new

Subnet: Manage subnet configuration

Public IP: Create new

NIC network security group:

Public inbound ports: Select inbound ports:

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portal.azure.com/#create/Microsoft.VirtualMachine-ARM

Microsoft Azure

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Samudesa3009@gmail.com

DEFAULT DIRECTORY (SAMUDESA)

Home > Virtual machines >

Create a virtual machine ...

Public inbound ports: None Allow selected ports
Select inbound ports: HTTPS (443), 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:

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 Application gateway
Supports all TCP/UDP network traffic, port-forwarding, and outbound flows.
Web traffic load balancer for HTTP/HTTPS with URL-based routing, SSL termination, session persistence, and web application firewall.

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Create a virtual machine ...

Basics Disks Networking Management Monitoring Advanced Tags Review + create

Tags are name/value pairs that enable you to categorize resources and view consolidated billing by applying the same tag to multiple resources and resource groups. [Learn more about tags](#)

Note that if you create tags and then change resource settings on other tabs, your tags will be automatically updated.

Name	Value	Resource
Sam	: 7	13 selected
	: []	13 selected

[Review + create](#) [< Previous](#) [Next : Review + create >](#)

Activate Windows
Go to Settings to activate Windows. [Give feedback](#)

Create a virtual machine - Microsoft Azure

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Create a virtual machine ...

Validation passed

Monitoring

Alerts: Off
Boot diagnostics: On
Enable OS guest diagnostics: Off

Advanced

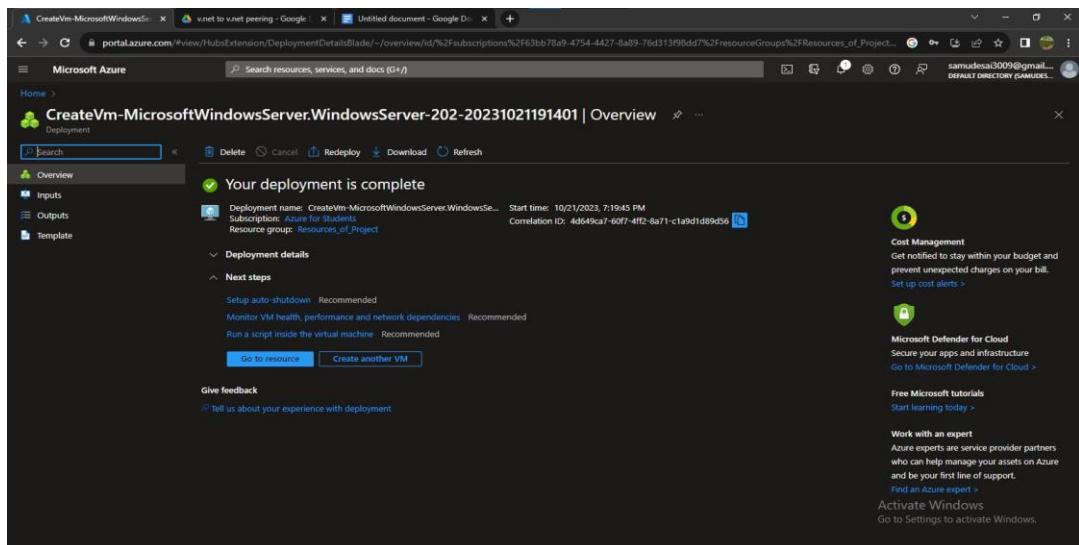
Extensions: None
VM applications: None
Cloud init: No
User data: No
Disk controller type: SCSI
Proximity placement group: None
Capacity reservation group: None

Tags

Sam	7 (Auto shutdown schedule)
Sam	7 (Availability set)

[Create](#) [< Previous](#) [Next >](#) [Download a template for automation](#)

Activate Windows
Go to Settings to activate Windows. [Give feedback](#)



create a 3nd virtual Machine (c) , Zone : Germany west central

Create virtual network

The Microsoft Azure Virtual Network service enables Azure resources to securely communicate with each other in a virtual network which is a logical isolation of the Azure cloud dedicated to your subscription. You can connect virtual networks to other virtual networks, or your on-premises network. [Learn more](#)

Name: Network_of_Web-Server-C

Address space
The virtual network's address space, specified as one or more address prefixes in CIDR notation (e.g. 192.168.1.0/24).

Address range *	Addresses	Overlap
192.168.0.0/16	192.168.0.0 - 192.168.255.255 (65536 addresses)	None
	(0 Addresses)	None

Subnets
The subnet's address range in CIDR notation. It must be contained by the address space of the virtual network.

Subnet name	Address range	Addresses
Sub-Network_of_Web-Server-C	192.168.0.0/24	192.168.0.0 - 192.168.0.255 (256 addresses)
	(0 Addresses)	

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

Virtual network: (new) Web-Server-C-vnet
Subnet: (new) default (10.0.0.0/24)
Public IP: (new) Web-Server-C-ip
NIC network security group: None
Public inbound ports: None
Select inbound ports: HTTPS (443), SSH (22)

Review + create < Previous Next : Management > OK Discard

Activate Windows
Go to Settings to activate Windows.

Create a virtual machine

Public inbound ports: Allow selected ports
Select inbound ports: HTTPS (443), SSH (22)

Warning: 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:

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
 None
 Azure load balancer
 Application gateway

Review + create < Previous Next : Management >

Activate Windows
Go to Settings to activate Windows. [Give feedback](#)

Create a virtual machine

Tags
Tags are name/value pairs that enable you to categorize resources and view consolidated billing by applying the same tag to multiple resources and resource groups. [Learn more about tags](#)

Note that if you create tags and then change resource settings on other tabs, your tags will be automatically updated.

Name	Value	Resource
Sam	7	13 selected
		(0 Addresses)

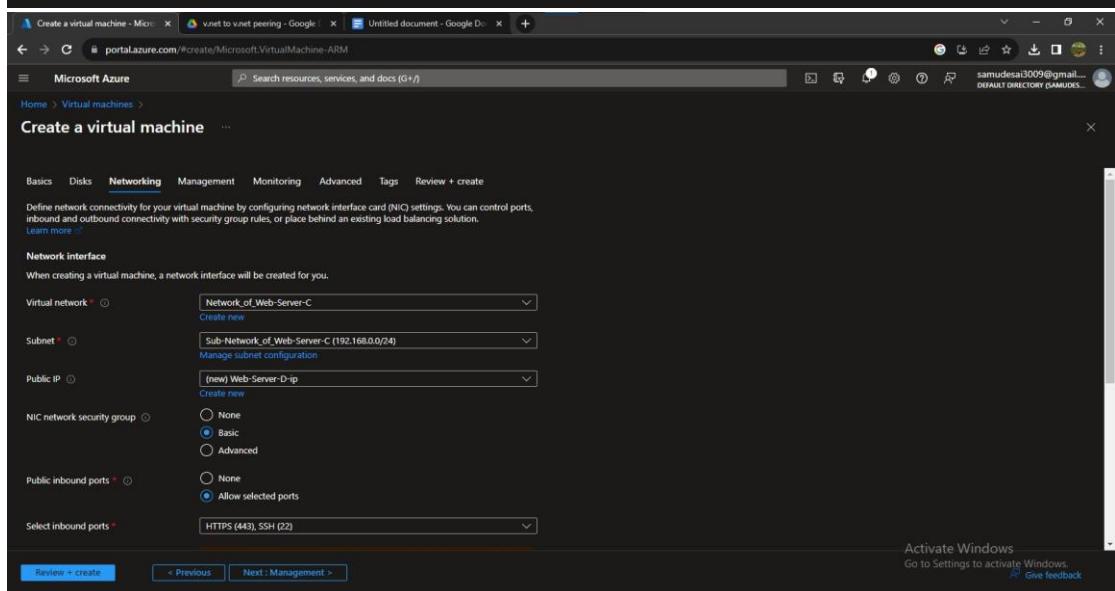
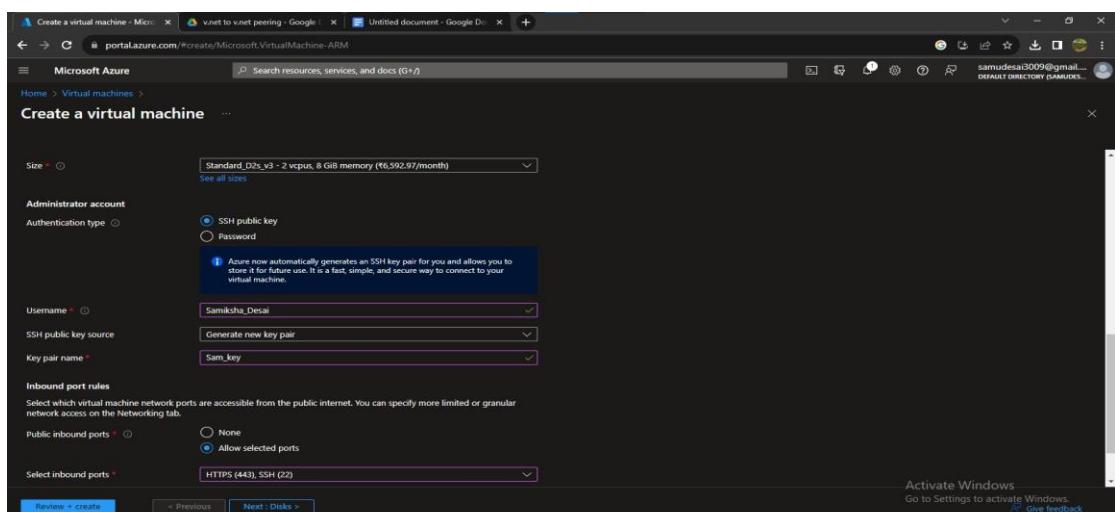
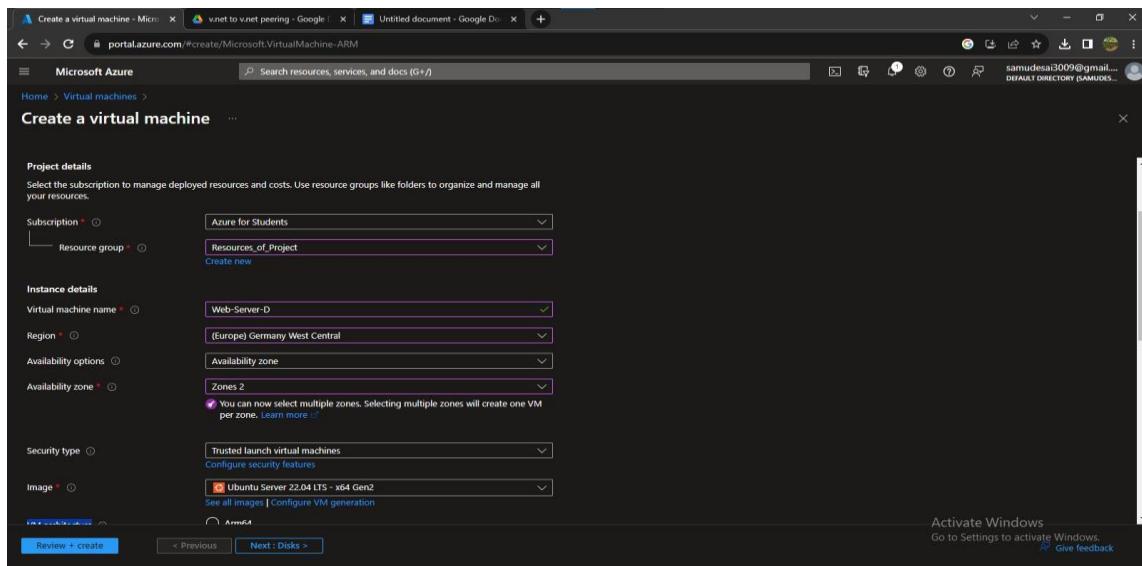
Review + create < Previous Next : Review + create >

Activate Windows
Go to Settings to activate Windows. [Give feedback](#)

The screenshots illustrate the process of creating a virtual machine in Microsoft Azure:

- Screenshot 1: Create a virtual machine - Microsoft Azure**
This screenshot shows the initial configuration page for creating a virtual machine. It includes sections for Monitoring (Alerts Off, Boot diagnostics On, Enable OS guest diagnostics Off), Advanced settings (Extensions None, VM applications None, Cloud init No, User data No, Disk controller type SCSI, Proximity placement group None, Capacity reservation group None), and Tags (Sam, 7 (Auto-shutdown schedule), 7 (Availability set)). A green bar at the top indicates "Validation passed". Buttons at the bottom include "Create", "< Previous", "Next >", and "Download a template for automation".
- Screenshot 2: Create a virtual machine - Microsoft Azure**
This screenshot shows the deployment submission progress. A message says "... Submitting deployment..." and "Submitting the deployment template for resource group 'Resources_of_Project'." The status bar at the bottom right shows "Activate Windows Go to Settings to activate Windows Give feedback".
- Screenshot 3: CreateVm-canonical.0001-com-ubuntu-server-jammy-2-20231021214119 | Overview**
This screenshot shows the completed deployment overview. It displays deployment details: Deployment name: CreateVm-canonical.0001-com-ubuntu-server-jammy-2-20231021214119, Subscription: Azure for Students, Resource group: Resources_of_Project, Start time: 10/21/2023, 9:51:26 PM, Correlation ID: 6e53cd9-40c-4f38-8815-8d7b92d05cfb. It also shows deployment status: "Your deployment is complete". Other sections include "Deployment details", "Next steps", "Go to resource", "Create another VM", "Give feedback", and "Tell us about your experience with deployment".

create a 4nd virtual Machine (d) Zone : Germany west central



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Home > Virtual machines >

Create a virtual machine

Advanced

Public inbound ports None Allow selected ports
Select inbound ports HTTPS (443), SSH (22)
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

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.

[Review + create](#) [< Previous](#) [Next : Management >](#)

Activate Windows
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Home > Virtual machines >

Create a virtual machine

Basics Disks Networking Management Monitoring Advanced [Tags](#) [Review + create](#)

Tags: are name/value pairs that enable you to categorize resources and view consolidated billing by applying the same tag to multiple resources and resource groups. [Learn more about tags](#)

Note that if you create tags and then change resource settings on other tabs, your tags will be automatically updated.

Name	Value	Resource
Sam	7	13 selected
		13 selected

[Review + create](#) [< Previous](#) [Next : Review + create >](#)

Activate Windows
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Create a virtual machine - Microsoft Azure | v.net to v.net peering - Google Chrome | Untitled document - Google Docs | +

Microsoft Azure | portal.azure.com/#create/Microsoft.VirtualMachine-ARM

Home > Virtual machines >

Create a virtual machine

Validation passed

Enable hotpatch Off

Patch orchestration options Image Default

Monitoring

Alerts	Off
Boot diagnostics	On
Enable OS guest diagnostics	Off

Advanced

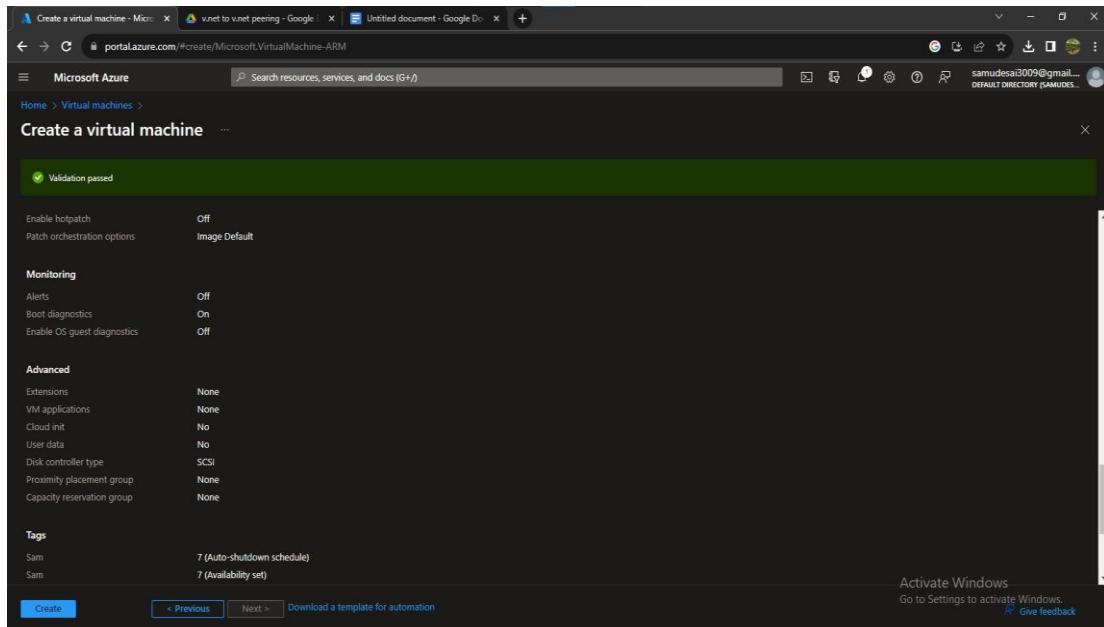
Extensions	None
VM applications	None
Cloud init	No
User data	No
Disk controller type	SCSI
Proximity placement group	None
Capacity reservation group	None

Tags

Sam	7 (Auto-shutdown schedule)
Sam	7 (Availability set)

Activate Windows
Go to Settings to activate Windows.

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Create a virtual machine

Validation passed

Enable hotpatch Off

Patch orchestration options Image Default

Monitoring

Alerts	Off
Boot diagnostics	On
Enable OS guest diagnostics	Off

Advanced

Extensions	None
VM applications	None
Cloud init	No
User data	No
Disk controller type	SCSI
Proximity placement group	None
Capacity reservation group	None

Tags

Sam	7 (Auto-shutdown schedule)
Sam	7 (Availability set)
Sam	7 (Disk)
Sam	7 (Network interface)

Generate new key pair

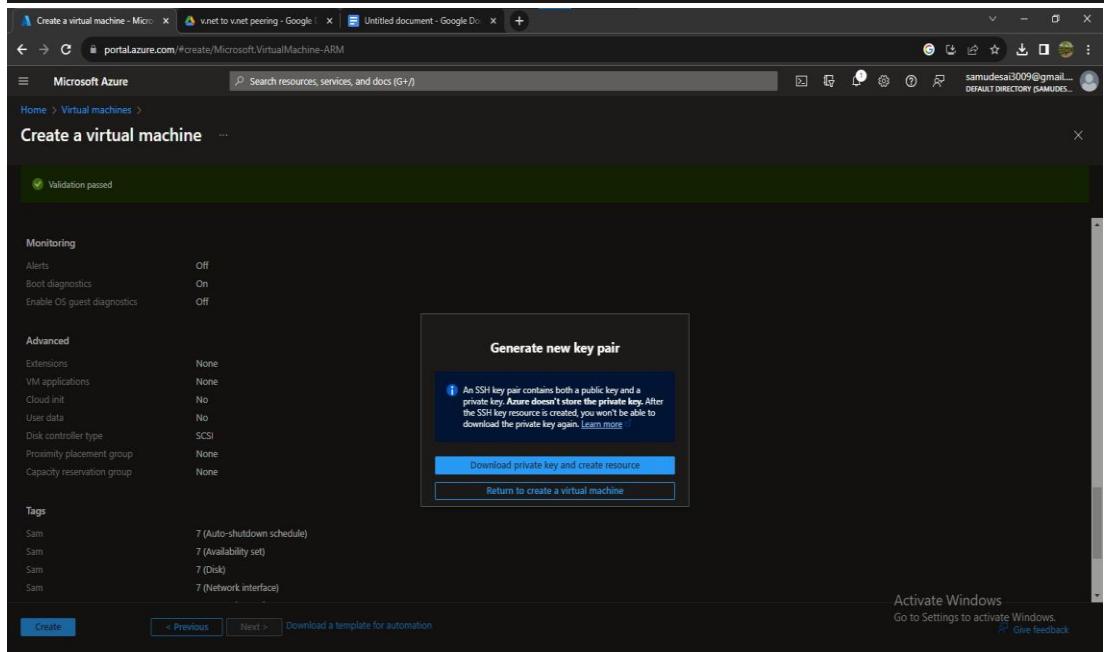
An SSH key pair contains both a public key and a private key. Azure doesn't store the private key. After the SSH key resource is created, you won't be able to download the private key again. [Learn more](#)

[Download private key and create resource](#)

[Return to create a virtual machine](#)

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Deployment

Your deployment is complete

Deployment name: CreateVm-canonical.0001-com-ubuntu-server-jammy-2-20231021215322 | **Start time:** 10/21/2023, 10:00:26 PM

Subscription: Azure for Students | **Resource group:** Resources_of_Project

Correlation ID: 3c158be-3450-48d9-8001-7669ea096c4

Deployment details

- Setup auto-shutdown: Recommended
- Monitor VM health, performance and network dependencies: Recommended
- Run a script inside the virtual machine: Recommended

Next steps

[Go to resource](#) | [Create another VM](#)

Give feedback

[Tell us about your experience with deployment](#)

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Now You can see all create virtual machine (A,B,C,D)

Name	Type	Subscription	Resource group	Location	Status	Operating system	Size	Public IP address	Disks
Web-Server-A	Virtual machine	Azure for Students	Resources_of_Project	Italy North	Running	Windows	Standard_D2s_v3	4.232.64.201	1
Web-Server-B	Virtual machine	Azure for Students	Resources_of_Project	Italy North	Running	Windows	Standard_D2s_v3	4.232.128.30	1
Web-Server-C	Virtual machine	Azure for Students	Resources_of_Project	Germany West Central	Running	Linux	Standard_D2s_v3	20.52.185.81	1
Web-Server-D	Virtual machine	Azure for Students	Resources_of_Project	Germany West Central	Running	Linux	Standard_D2s_v3	98.67.161.251	1

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Add Peering

Add peering

This virtual network
Peering link name: Network_of_Web-Server-AB-Peering

Allow Network_of_Web-Server-A' to access 'Network_of_Web-Server-C'

Allow Network_of_Web-Server-A' to receive forwarded traffic from 'Network_of_Web-Server-C'

Allow gateway in 'Network_of_Web-Server-A' to forward traffic to 'Network_of_Web-Server-C'

Enable 'Network_of_Web-Server-A' to use 'Network_of_Web-Server-C's remote gateway

Remote virtual network
Peering link name: Network_of_Web-Server-CD-Peering

Virtual network deployment model
 Resource manager
 Classic

I know my resource ID

Subscription: samudesa3009@gmail.com

Activate Windows
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Add peering ...

Allow Network_of_Web-Server-A to receive forwarded traffic from 'Network_of_Web-Server-C'

Allow gateway in 'Network_of_Web-Server-A' to forward traffic to 'Network_of_Web-Server-C'

Enable 'Network_of_Web-Server-A' to use 'Network_of_Web-Server-C's remote gateway

Remote virtual network
Peering link name: Network_of_Web-Server-CD-Peering

Virtual network deployment model: Resource manager Classic

I know my resource ID

Subscription: Azure for Students

Virtual network: Network_of_Web-Server-C

Allow 'Network_of_Web-Server-C' to access 'Network_of_Web-Server-A'

Allow 'Network_of_Web-Server-C' to receive forwarded traffic from 'Network_of_Web-Server-A'

Allow gateway in 'Network_of_Web-Server-C' to forward traffic to 'Network_of_Web-Server-A'

Enable 'Network_of_Web-Server-C' to use 'Network_of_Web-Server-A's remote gateway

Add

Network_of_Web-Server-A | Peering

Name	Peer	Peering status	Gateway transit
Network_of_Web-Server-AB-Peering	Network_of_Web-Server-C	Connected	Enabled

Network_of_Web-Server-C | Peering

Name	Peer	Peering status	Gateway transit
Network_of_Web-Server-CD-Peering	Network_of_Web-Server-A	Connected	Enabled

Add Subnet

The screenshots illustrate the process of adding subnets to three separate virtual networks (Network_of_Web-Server-A, Network_of_Web-Server-B, and Network_of_Web-Server-C) in the Microsoft Azure portal.

Screenshot 1: Network_of_Web-Server-A

In the 'Add subnet' dialog for Network_of_Web-Server-A:

- Name:** GatewaySubnet
- Subnet address range:** 172.22.1.0/24 (172.22.1.0 - 172.22.1.255 (251 + 5 Azure reserved addresses))
- NAT gateway:** None
- Network security group:** None
- Route table:** None
- Service endpoints:** 0 selected
- Subnet delegation:** Delegate subnet to a service: availability dependent

Screenshot 2: Network_of_Web-Server-B

In the 'Add subnet' dialog for Network_of_Web-Server-B:

- Name:** GatewaySubnet
- Subnet address range:** 172.22.1.0/24 (172.22.1.0 - 172.22.1.255 (251 + 5 Azure reserved addresses))
- NAT gateway:** None
- Network security group:** None
- Route table:** None
- Service endpoints:** 0 selected
- Subnet delegation:** Delegate subnet to a service: availability dependent

Screenshot 3: Network_of_Web-Server-C

In the 'Add subnet' dialog for Network_of_Web-Server-C:

- Name:** GatewaySubnet
- Subnet address range:** 192.168.1.0/24 (192.168.1.0 - 192.168.1.255 (251 + 5 Azure reserved addresses))
- NAT gateway:** None
- Network security group:** None
- Route table:** None
- Service endpoints:** 0 selected
- Subnet delegation:** Delegate subnet to a service: availability dependent

Then create virtual network gateway

The image displays three sequential screenshots of the Microsoft Azure 'Create virtual network gateway' wizard, showing the 'Basics', 'Tags', and 'Review + create' steps.

Step 1: Basics

Project details:
Subscription: Azure for Students
Resource group: Resources_of_Project (derived from virtual network's resource group)

Instance details:
Name: VPNGTW_of_Web-Server-AB
Region: Italy North
Gateway type: VPN (selected)
SKU: VpnGw1
Generation: Generation1
Virtual network: Network_of_Web-Server-A (Create virtual network)
Subnet: GatewaySubnet (172.22.1.0/24)

Step 2: Tags

Tags are name/value pairs that enable you to categorize resources and view consolidated billing by applying the same tag to multiple resources and resource groups. Learn more.

Note that if you create tags and then change resource settings on other tabs, your tags will be automatically updated.

Name	Value
Sam	7

Step 3: Review + create

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

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portal.azure.com/#create/Microsoft.VirtualNetworkGateway-ARM

Microsoft Azure

Home > Virtual network gateways >

Create virtual network gateway ...

Validation passed

Basics Tags Review + create

Basics

Subscription	Azure for Students
Resource group	Resources_of_Project
Name	VPNGTW_of_Web-Server-CD
Region	Germany West Central
SKU	VpnGw1
Generation	Generation1
Virtual network	Network_of_Web-Server-C
Subnet	GatewaySubnet (192.168.1.0/24)
Gateway type	Vpn
VPN type	RouteBased
Enable active-active mode	Disabled
Configure BGP	Disabled
Public IP address	IP-address_of_VPNTGW_of_Web-Server-CD

Tags

Sam 7

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portal.azure.com/#create/Microsoft.VirtualNetworkGateway-ARM

Microsoft Azure

Home > Virtual network gateways >

Create virtual network gateway ...

Basics Tags Review + create

Azure has provided a planning and design guide to help you configure the various VPN gateway options. [Learn more](#)

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

Resource group: Resources_of_Project (derived from virtual network's resource group)

Instance details

Name *	VPNGTW_of_Web-Server-CD
Region *	Germany West Central
Gateway type *	<input checked="" type="radio"/> VPN <input type="radio"/> ExpressRoute
SKU *	VpnGw1
Generation	Generation1
Virtual network *	Network_of_Web-Server-C
Subnet	GatewaySubnet (192.168.1.0/24)

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

Activate Windows
Go to Settings to activate Windows.

[Create virtual network gateway](#) [Untitled document - Google Docs](#) +

portal.azure.com/#create/Microsoft.VirtualNetworkGateway-ARM

Microsoft Azure

Home > Virtual network gateways >

Create virtual network gateway ...

Gateway type: VPN ExpressRoute

SKU: VpnGw1

Generation: Generation1

Virtual network: Network_of_Web-Server-C

Subnet: GatewaySubnet (192.168.1.0/24)

Only virtual networks in the currently selected subscription and region are listed.

Public IP address

Public IP address: Create new Use existing

Public IP address name: IP-address_of_VPNTGW_of_Web-Server-CD

Public IP address SKU: Standard

Assignment: Dynamic Static

Enable active-active mode: Enabled Disabled

Configure BGP: Enabled Disabled

Azure recommends using a validated VPN device with your virtual network gateway. To view a list of validated devices and instructions for configuration, refer to Azure's [documentation](#) regarding validated VPN devices.

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Activate Windows
Go to Settings to activate Windows.

Create virtual network gateway

Untitled document - Google Docs

portal.azure.com/#create/Microsoft.VirtualNetworkGateway-ARM

Microsoft Azure

Search resources, services, and docs (G+)

Home > Virtual network gateways >

Create virtual network gateway

Basics Tags Review + create

Tags are name/value pairs that enable you to categorize resources and view consolidated billing by applying the same tag to multiple resources and resource groups. [Learn more](#)

Note that if you create tags and then change resource settings on other tabs, your tags will be automatically updated.

Name	Value
Sam	7

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

Activate Windows Go to Settings to activate Windows.

Create virtual network gateway

Validation passed

Basics Tags Review + create

Basics

Subscription	Azure for Students
Resource group	Resources_of_Project
Name	VPNGTW_of_Web-Server-CD
Region	Germany West Central
SKU	VpnGw1
Generation	Generation1
Virtual network	Network_of_Web-Server-C
Subnet	GatewaySubnet (192.168.1.0/24)
Gateway type	Vpn
VPN type	RouteBased
Enable active-active mode	Disabled
Configure BGP	Disabled
Public IP address	IP-address_of_VPNTGW_of_Web-Server-CD

Tags

Sam	7
-----	---

Create Previous Next Download a template for automation

Activate Windows Go to Settings to activate Windows.

Virtual network gateways

Default Directory (samudeas1309@gmail.onmicrosoft.com)

+ Create Manage view Refresh Export to CSV Open query Assign tags

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

No grouping List view

Showing 1 to 2 of 2 records.

Name	Virtual ...	Gatew...	Resource group	Location	Subscription
VPNGTW_of_Web-Server-AB	Network_of_	Vpn	Resources_of_Project	Italy North	Azure for Students
VPNGTW_of_Web-Server-CD	Network_of_	Vpn	Resources_of_Project	Germany West Central	Azure for Students

Activate Windows Go to Settings to activate Windows.

[Create connection - Microsoft](#) [Untitled document - Google Docs](#) +

Microsoft Azure Search resources, services, and docs (G+) samudesa3009@gmail... DEFAULT DIRECTORY (SAMUDE...)

Home > Virtual network gateways > VPNGTW_of_Web-Server-CD | Connections >

Create connection

Basics Settings Tags Review + create

Create a secure connection to your virtual network by using VPN Gateway or ExpressRoute.
[Learn more about VPN Gateways](#) [Learn more about ExpressRoutes](#)

Project details

Subscription * Azure for Students
Resource group * Resources_of_Project [Create new](#)

Instance details

Connection type * VNet-to-VNet
Establish bidirectional connectivity

First connection name * VPNGTW_of_Web-Server-CD-Connection
Second connection name * To-VPNGTW_of_Web-Server-AB
Region * Germany West Central

Activate Windows Go to Settings to activate Windows.

[Review + create](#) [Previous](#) [Next : Settings >](#) [Download a template for automation](#)

[Create connection - Microsoft](#) [Untitled document - Google Docs](#) +

Microsoft Azure Search resources, services, and docs (G+) samudesa3009@gmail... DEFAULT DIRECTORY (SAMUDE...)

Home > Virtual network gateways > VPNGTW_of_Web-Server-CD | Connections >

Create connection

Basics Settings Tags Review + create

Virtual network gateway To use a virtual network with a connection, it must be associated to a virtual network gateway.

First virtual network gateway * VPNGTW_of_Web-Server-CD
Second virtual network gateway * VPNGTW_of_Web-Server-AB
Shared key (PSK) * [View](#)

IKE Protocol IKEV1 IKEV2
Use Azure Private IP Address
Enable BGP
FastPath
IPSec / IKE policy [Default](#) [Custom](#)
Use policy based traffic selector [Enable](#) [Disable](#)
DPD timeout in seconds * 45
Connection Mode Default InitiatorOnly ResponderOnly

Activate Windows Go to Settings to activate Windows.

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[Create connection - Microsoft](#) [Untitled document - Google Docs](#) +

Microsoft Azure Search resources, services, and docs (G+) samudesa3009@gmail... DEFAULT DIRECTORY (SAMUDE...)

Home > Virtual network gateways > VPNGTW_of_Web-Server-CD | Connections >

Create connection

Basics Settings Tags Review + create

Tags are name/value pairs that enable you to categorize resources and view consolidated billing by applying the same tag to multiple resources and resource groups. [Learn more](#)

Note that if you create tags and then change resource settings on other tabs, your tags will be automatically updated.

Name	Value	Resource
Sam	: 7	Connection
	:	Connection

Activate Windows Go to Settings to activate Windows.

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Create connection - Microsoft A Untitled document - Google Docs

Microsoft Azure Search resources, services, and docs (G+) samudesa3009@gmail... DEFAULT DIRECTORY (SAMUDESA)

Home > Virtual network gateways > VPNGTW_of_Web-Server-CD | Connections > Create connection

Validation passed

Basics Settings Tags Review + create

Basics

Description: Azure for Students
 Resource group: Resources_of_Project
 Region: Germany West Central
 Connection type: VNet-to-VNet
 Establish bidirectional connectivity: Yes
 First connection name: VPNGTW_of_Web-Server-CD-Connection
 Second connection name: To-VPNGTW_of_Web-Server-AB

Settings

First virtual network gateway: VPNGTW_of_Web-Server-CD
 Second virtual network gateway: VPNGTW_of_Web-Server-AB
 IKE Protocol: IKEv2
 IPsec / IKE policy: Default
 Use policy based traffic selector: Disable
 DPD timeout in seconds: 45
 Connection Mode: Default
 Shared key (PSK): Sam-psk

Activate Windows Go to Settings to activate Windows.

Create **Previous** **Next** Download a template for automation

NoMarketplace-20231021233001 | Overview Untitled document - Google Docs

Microsoft Azure Search resources, services, and docs (G+) samudesa3009@gmail... DEFAULT DIRECTORY (SAMUDESA)

Home > NoMarketplace-20231021233001 | Overview

Your deployment is complete

Deployment name : NoMarketplace-20231021233001 Deployment ID : e50a1b9-5ce4-b4a6-de580573cd2

Subscription : Azure for Students Start time : 10/21/2023, 11:33:27 PM

Resource group : Resources_of_Project Correlation ID : f50a1b9-5ce4-b4a6-de580573cd2

Deployment details

Next steps

Go to resource group

Cost management Get notified to stay within your budget and prevent unexpected charges on your bill. Set up cost alerts >

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Activate Windows Go to Settings to activate Windows.

VPNGTW_of_Web-Server-CD | Connections Untitled document - Google Docs

Microsoft Azure Search resources, services, and docs (G+) samudesa3009@gmail... DEFAULT DIRECTORY (SAMUDESA)

Home > Virtual network gateways > VPNGTW_of_Web-Server-CD

Virtual network gateway Default Directory (samudesa3009@gmail.com) samudesa3009@gmail... DEFAULT DIRECTORY (SAMUDESA)

VPNGTW_of_Web-Server-CD | Connections Virtual network gateway

Add **Refresh**

Search connections

Name	Status	Connection type	Peer
VPNGTW_of_Web-Server-CD-Conn...	Connected	VNet-to-VNet	VPNGTW_of_Web-Server-AB
To-VPNGTW_of_Web-Server-AB	Connected	VNet-to-VNet	VPNGTW_of_Web-Server-AB

Activate Windows Go to Settings to activate Windows.

The screenshot shows the Microsoft Azure portal interface for managing a Virtual Network Gateway. The left sidebar lists 'Virtual network gateways' and 'VPNGTW_of_Web-Server-AB'. The main content area is titled 'VPNGTW_of_Web-Server-AB | Connections' and displays a table of connections:

Name	Status	Connection type	Peer
VPNGTW_of_Web-Server-CD-Conn...	Connected	VNet-to-VNet	VPNGTW_of_Web-Server-CD
To-VPNGTW_of_Web-Server-AB	Connected	VNet-to-VNet	VPNGTW_of_Web-Server-CD

Connect vm (A) using Rdp

The screenshot shows the Microsoft Azure portal interface for managing virtual machines. The left sidebar lists 'Virtual machines' and 'Web-Server-A'. The main content area is titled 'Web-Server-A | Connect' and provides connection options:

Native RDP

Connect from your local machine (Windows)

- ✓ Port 3389 access: Port 3389 on this virtual machine is accessible from the local machine IP (49.36.109.152). Learn more.
- ⓘ Change the port for connecting to this virtual machine on the Connect page of the virtual machine.
- ✓ Public IP address: 4.232.72.191 A public IP address is required to connect via this connection method.

2 Open Remote Desktop Connection (on Windows)
Open Remote Desktop Connection. Or change your local machine operating system to view more instructions. Learn more.

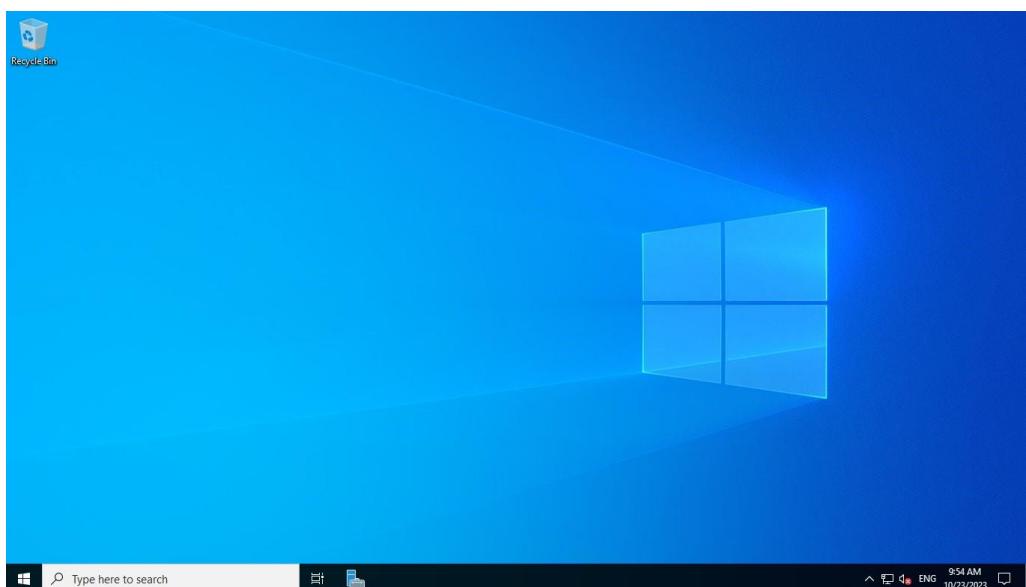
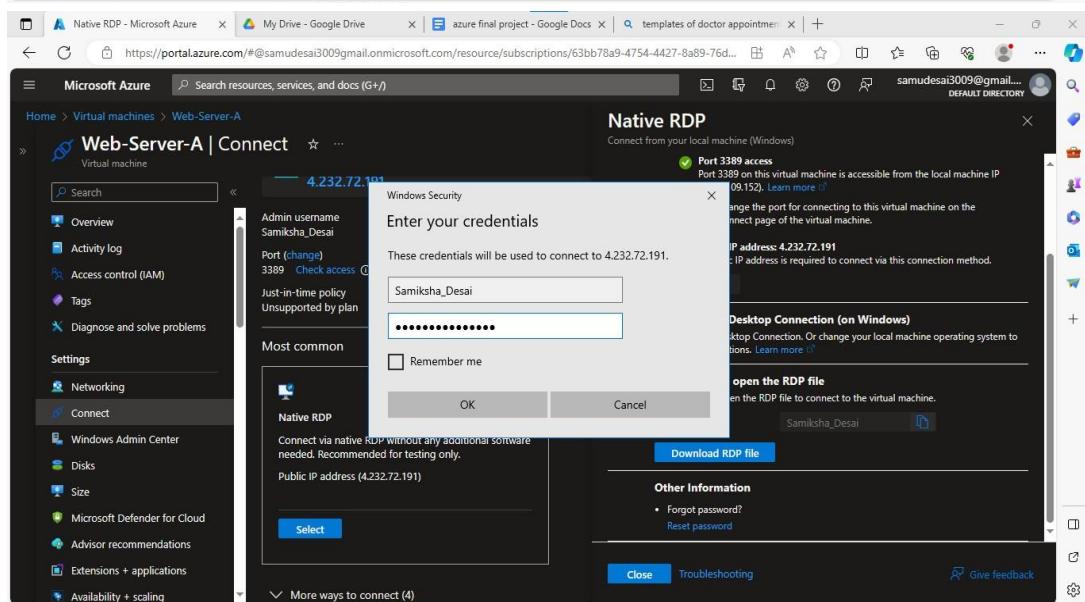
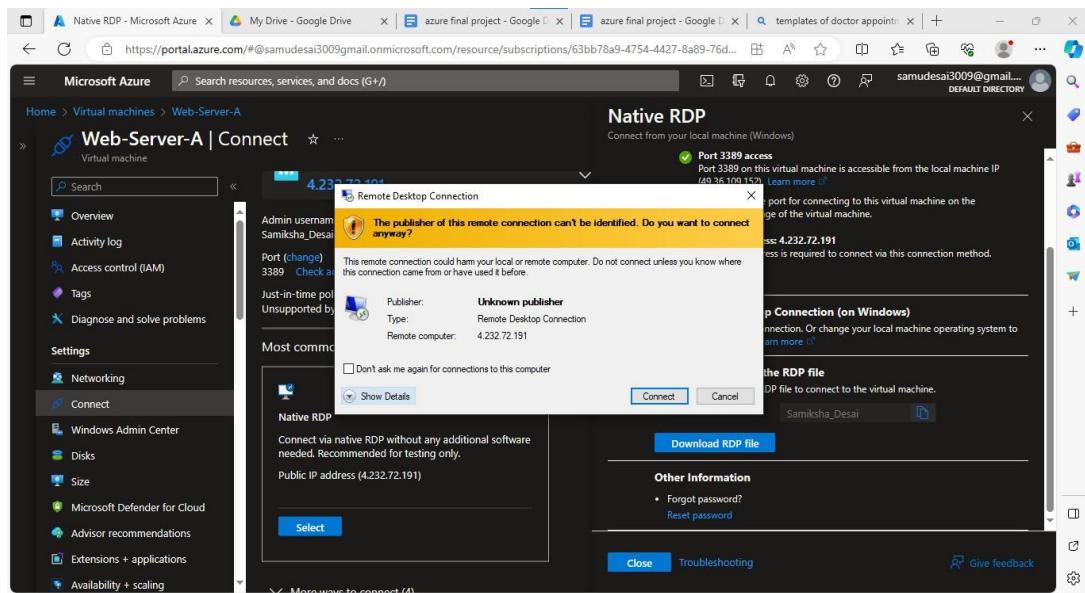
3 Download and open the RDP file
Download and open the RDP file to connect to the virtual machine.
Username: Samiksha_Desai

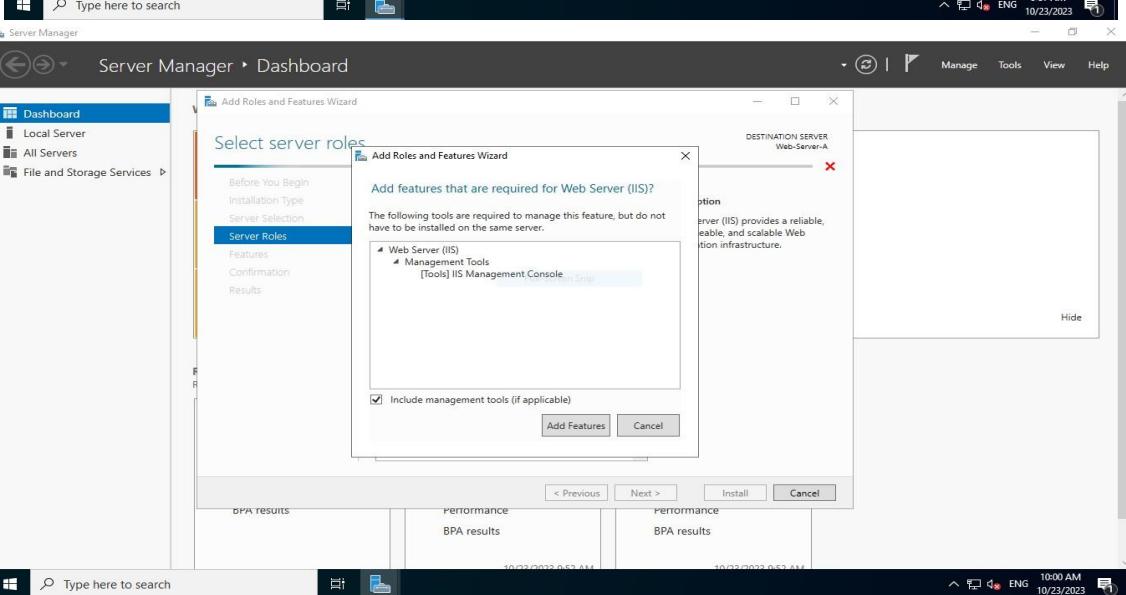
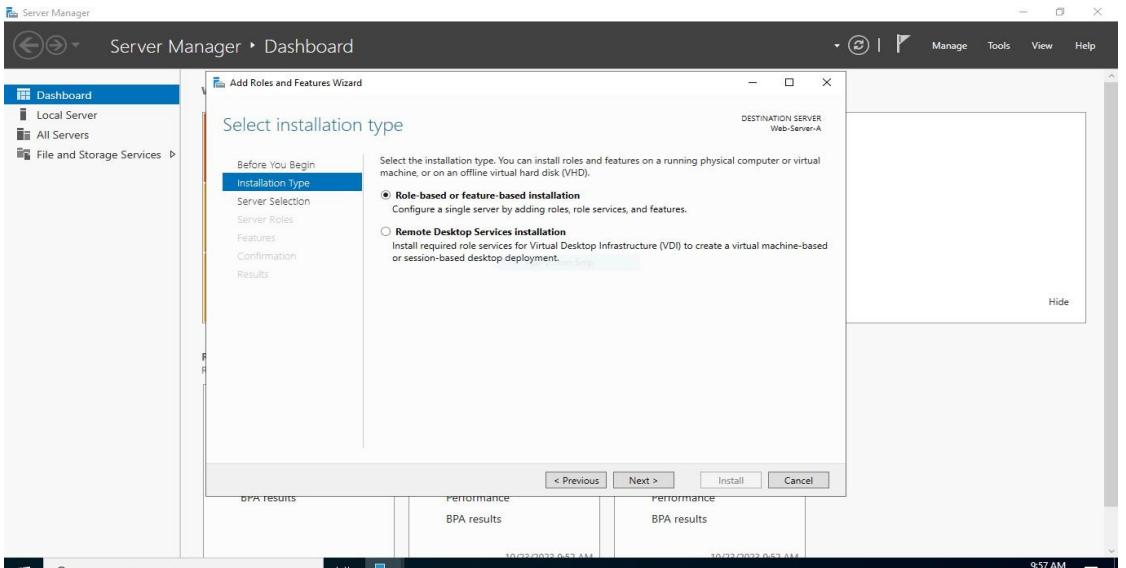
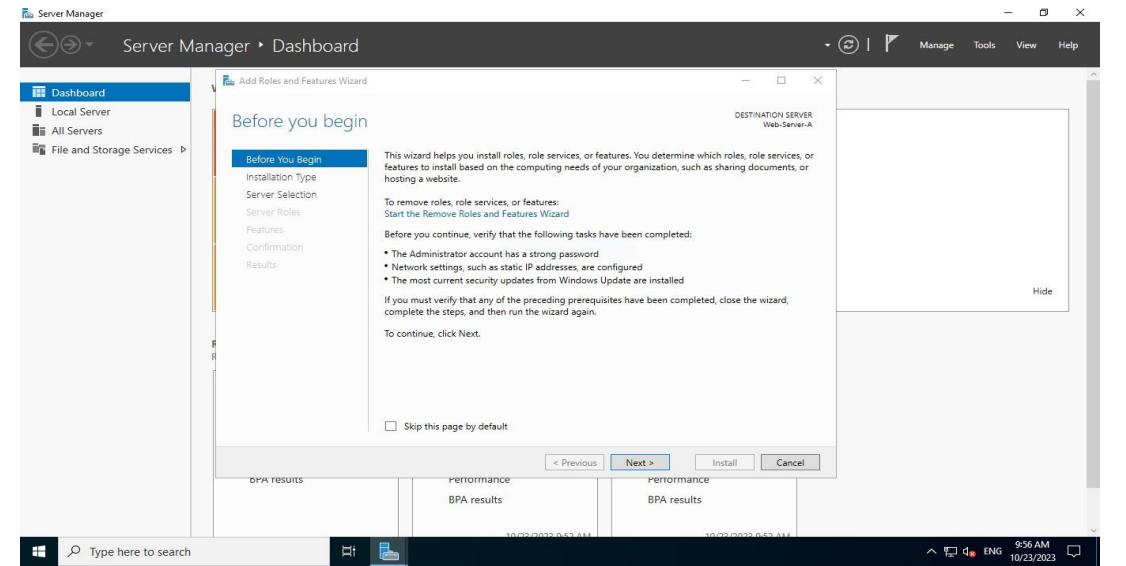
Native RDP
Connect via native if needed. Recommender
Public IP address (4)

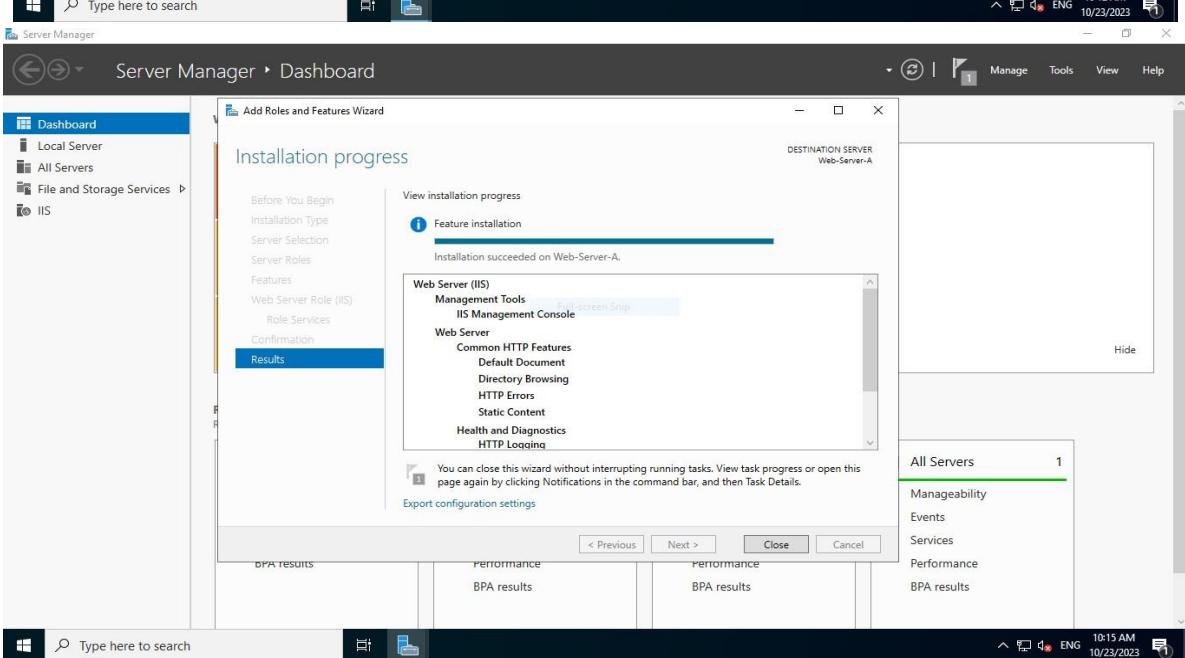
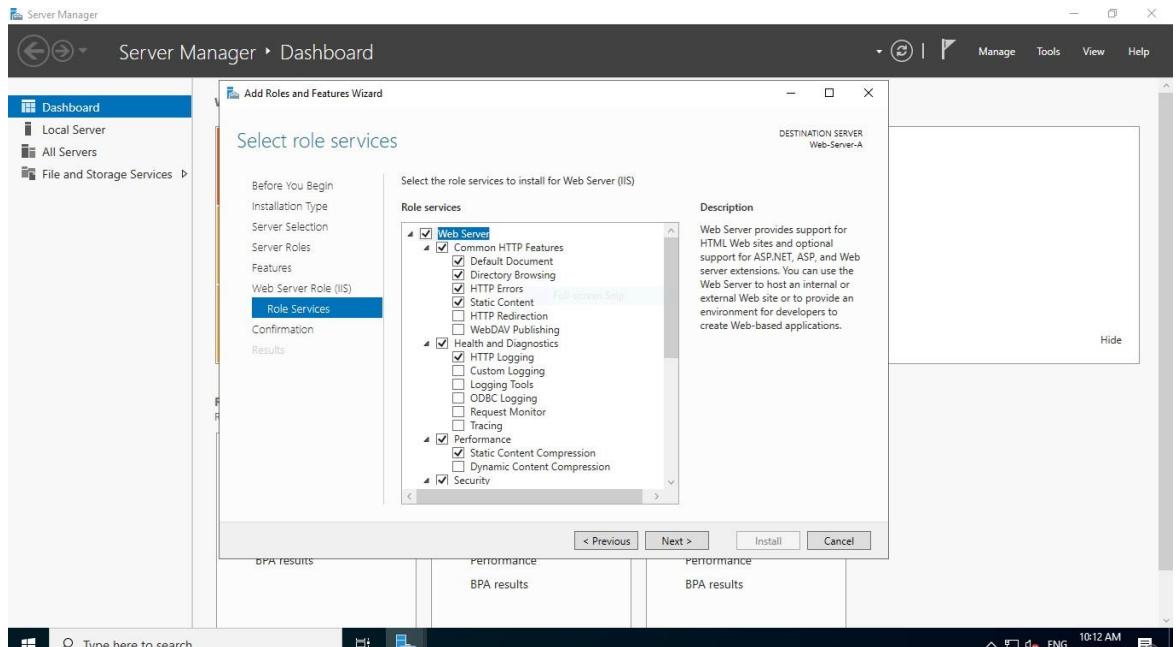
Other Information

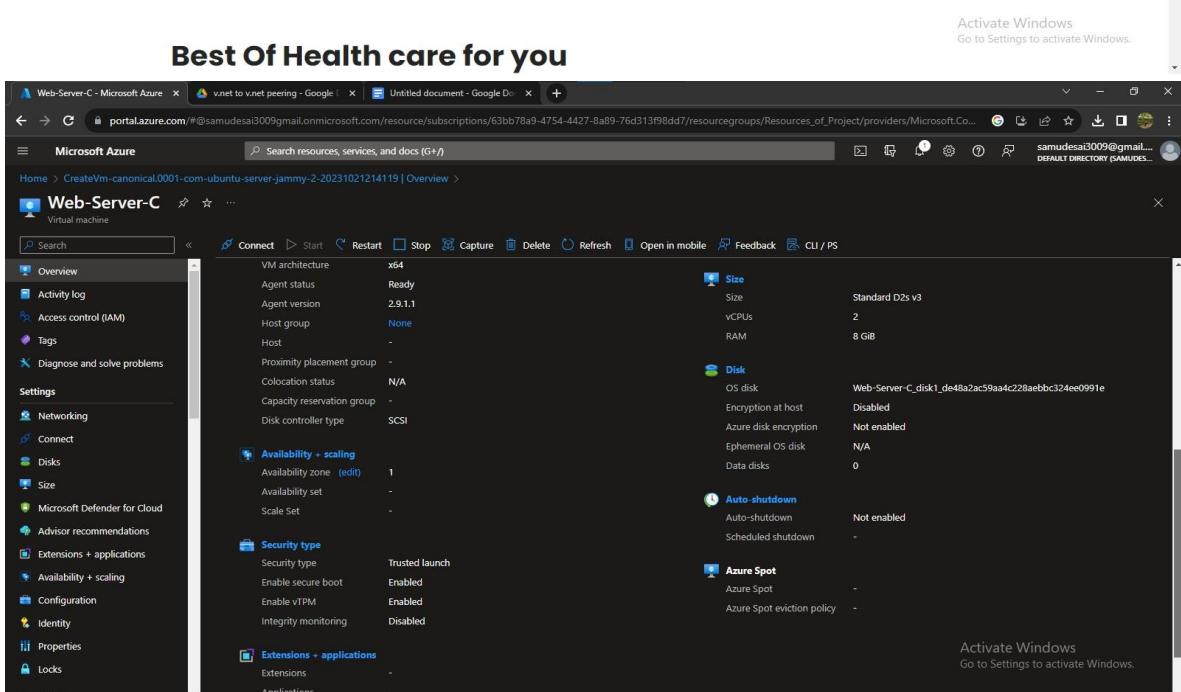
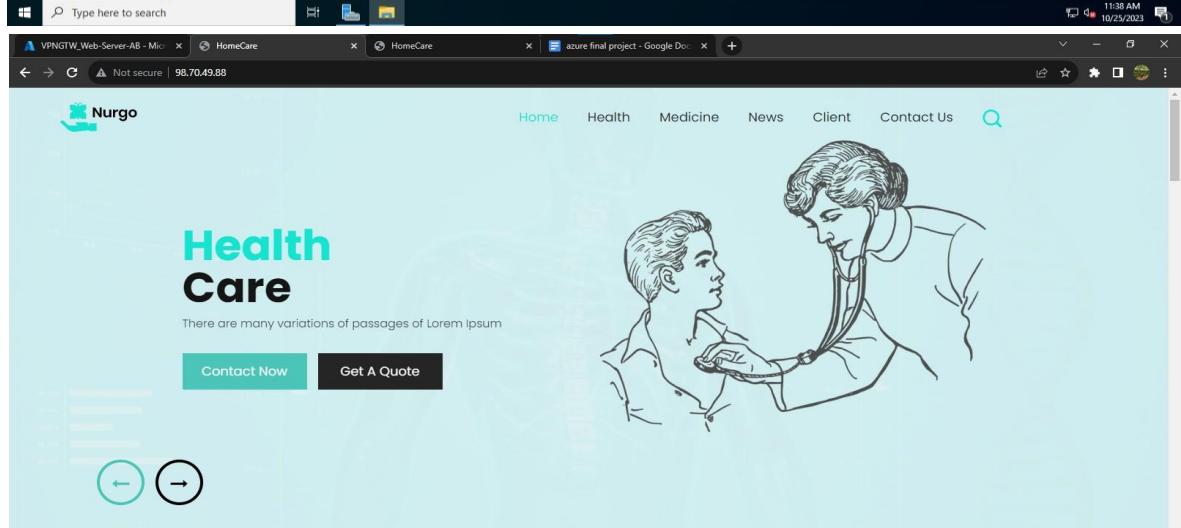
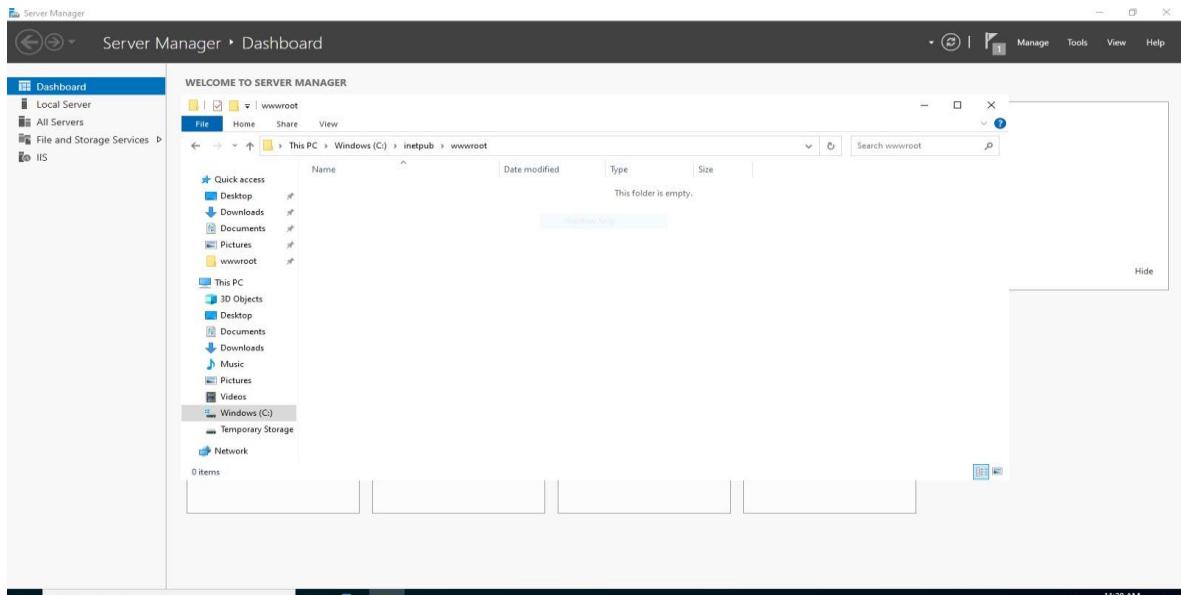
- Forgot password?
- Reset password

Buttons: Select, Close, Troubleshooting, Give feedback









Connect virtual machine C

The screenshot shows the Microsoft Azure portal interface. On the left, there's a sidebar with 'Virtual machines' listed under 'Microsoft Azure'. Below it, a list of servers includes 'Web-Server-A', 'Web-Server-B', 'Web-Server-C' (which is selected), and 'Web-Server-D'. In the main content area, a window titled 'Web-Server-C' is open, showing a 'Command Prompt' session. The prompt shows the user has connected via SSH using a private key ('Sam-Key.pem') and is logged in as 'Samiksha_Desai@51.116.128.154'. The command entered was 'ssh -i C:\Users\user\Sam-Key.pem Samiksha_Desai@51.116.128.154'. The session output is partially visible, showing some system logs and memory information. At the bottom of the Command Prompt window, network details are shown: 'Public IP address (IPv4) - 51.116.128.154', 'Private IP address - 192.168.0.4', and 'Private IP address (IPv6) - ::1'. A note says 'Activate Windows' with a link to 'Settings to activate Windows'. On the right side of the portal, there are tabs for 'HomeCare', 'My Drive - Google Drive', and 'azure final project - Google Doc...'. The status bar at the bottom right shows the email 'anagar@bharatedu.co.in' and the directory 'DEFAULT DIRECTORY'.

The screenshot shows a web browser window with the URL 'Not secure | 98.70.49.88'. The page is titled 'Nurgo' and features a large illustration of a doctor examining a patient. The doctor is holding a stethoscope and looking at the patient's chest. The patient is seated and facing the doctor. Below the illustration, the word 'Health Care' is written in large, bold, black letters. There are two buttons: 'Contact Now' (in a teal box) and 'Get A Quote' (in a dark grey box). To the left of the main content, there are two circular arrows: one pointing left and one pointing right. The top navigation bar includes links for 'Home', 'Health', 'Medicine', 'News', 'Client', and 'Contact Us'. A search icon is also present. At the bottom right of the page, there is a note about activating Windows: 'Activate Windows' and 'Go to Settings to activate Windows.'

Best Of Health care for you

- **Now create storage account**

Create a storage account

Project details

Select the subscription in which to create the new storage account. Choose a new or existing resource group to organize and manage your storage account together with other resources.

Subscription: Azure for Students
Resource group: Resources_Project

Instance details

Storage account name: project7storage
Region: (Asia Pacific) Central India
Deploy to an edge zone

Review < Previous Next : Advanced >

Activate Windows Go to Settings to activate Windows. Give feedback

Create a storage account

Networking

Network connectivity

You can connect to your storage account either publicly, via public IP addresses or service endpoints, or privately, using a private endpoint.

Network access: Enable public access from selected virtual networks and IP addresses

Virtual networks

Only the selected network will be able to access this storage account. Learn more

Virtual network subscription: Azure for Students
Virtual network: Network_of_Web-Server-A
Subnets: Sub-Network_of_Web-Server-A (172.22.0.0/24) ('Microsoft.Storage' endpoint)

Review < Previous Next : Data protection >

Activate Windows Go to Settings to activate Windows. Give feedback

Create a storage account

Data protection

Recovery

Protect your data from accidental or erroneous deletion or modification.

Enable point-in-time restore for containers
Use point-in-time restore to restore one or more containers to an earlier state. If point-in-time restore is enabled, then versioning, change feed, and blob soft delete must also be enabled. [Learn more](#)

Enable soft delete for blobs
Soft delete enables you to recover blobs that were previously marked for deletion, including blobs that were overwritten. [Learn more](#)

Days to retain deleted blobs: 7

Enable soft delete for containers
Soft delete enables you to recover containers that were previously marked for deletion. [Learn more](#)

Days to retain deleted containers: 7

Enable soft delete for file shares
Soft delete enables you to recover file shares that were previously marked for deletion. [Learn more](#)

Days to retain deleted file shares: 7

Review < Previous Next : Encryption >

Activate Windows Go to Settings to activate Windows. Give feedback

Create a storage account - Microsoft Azure

Create a storage account

Project details

Select the subscription in which to create the new storage account. Choose a new or existing resource group to organize and manage your storage account together with other resources.

Subscription: Azure for Students
Resource group: Resources_Project
Create new

Instance details

Storage account name: project8storage
Region: (Europe) Germany West Central
Deploy to an edge zone

Performance: Standard: Recommended for most scenarios (general-purpose v2 account)
Premium: Recommended for scenarios that require low latency.

Review < Previous Next : Advanced >

Activate Windows
Go to Settings to activate Windows.
Give feedback

Create a storage account - Microsoft Azure

Create a storage account

Networking

You can connect to your storage account either publicly, via public IP addresses or service endpoints, or privately, using a private endpoint.

Network access: Enable public access from selected virtual networks and IP addresses

Virtual networks

Only the selected network will be able to access this storage account. Learn more

Virtual network subscription: Azure for Students
Virtual network: Network_of_Web-Server-C
Subnets: Sub-Network_of_Web-Server-C (192.168.0.0/24) ('Microsoft.Storage' endpoint)

Review < Previous Next : Data protection >

Activate Windows
Go to Settings to activate Windows.
Give feedback

Upload blob - Microsoft Azure

Upload blob

1 file(s) selected: .DS_Store
Drag and drop files here or Browse for files

Select an existing container: container0/project
Create new
Overwrite if files already exist

Upload

Activate Windows
Go to Settings to activate Windows.

project8storage | Overview

Storage account

Search

Overview

- Activity log
- Tags
- Diagnose and solve problems
- Access Control (IAM)
- Data migration
- Events
- Storage browser
- Storage Mover

Data storage

- Containers
- File shares
- Queues
- Tables

Security + networking

- Networking
- Front Door and CDN
- Access keys
- Change access signature

Essentials

Resource group (move)	: Resources_Project
Location	: Germany West Central
Primary/Secondary Location	: Primary: Germany West Central, Secondary: Germany North
Subscription (move)	: Azure for Students
Subscription ID	: dca41edc-381c-4f78-b53d-1ddabf8c3c3e
Disk state	: Primary: Available, Secondary: Available
Tags (edit)	: Sam : 7

Properties **Monitoring** **Capabilities (7)** **Recommendations (0)** **Tutorials** **Tools + SDKs**

Blob service

Hierarchical namespace	Disabled
Default access tier	Hot
Blob anonymous access	Disabled
Blob soft delete	Enabled (7 days)
Container soft delete	Enabled (7 days)
Versioning	Disabled
NFS v3	Disabled
Allow cross-tenant replication	Disabled

Security

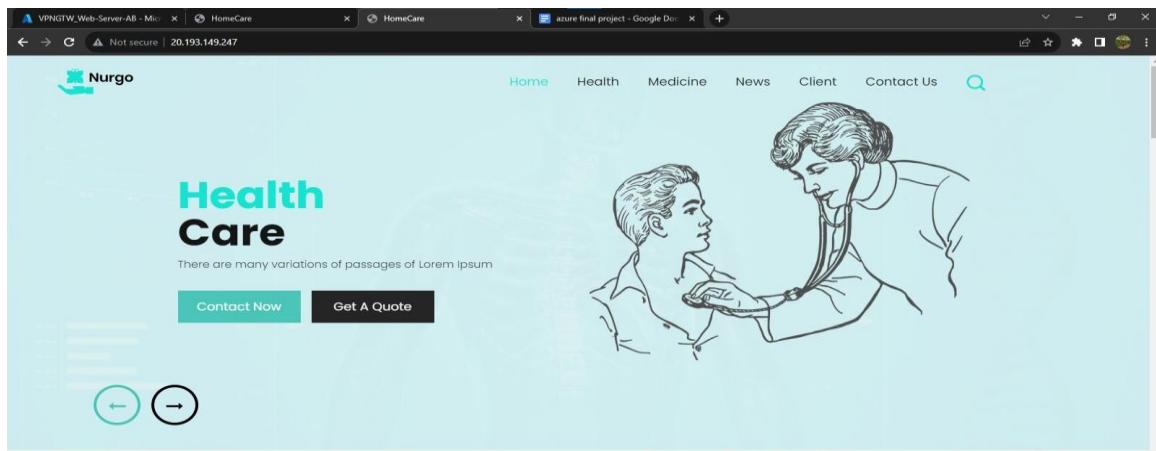
Require se operations	Storage ac
Storage ac	Minimum
Minimum	Infrastructure

Network

Allow acc	Number o
Number o	Network r

Upload

Activate Windows
Go to Settings to activate Windows.



Best Of Health care for you

Activate Windows
Go to Settings to activate Windows.