



## **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.**

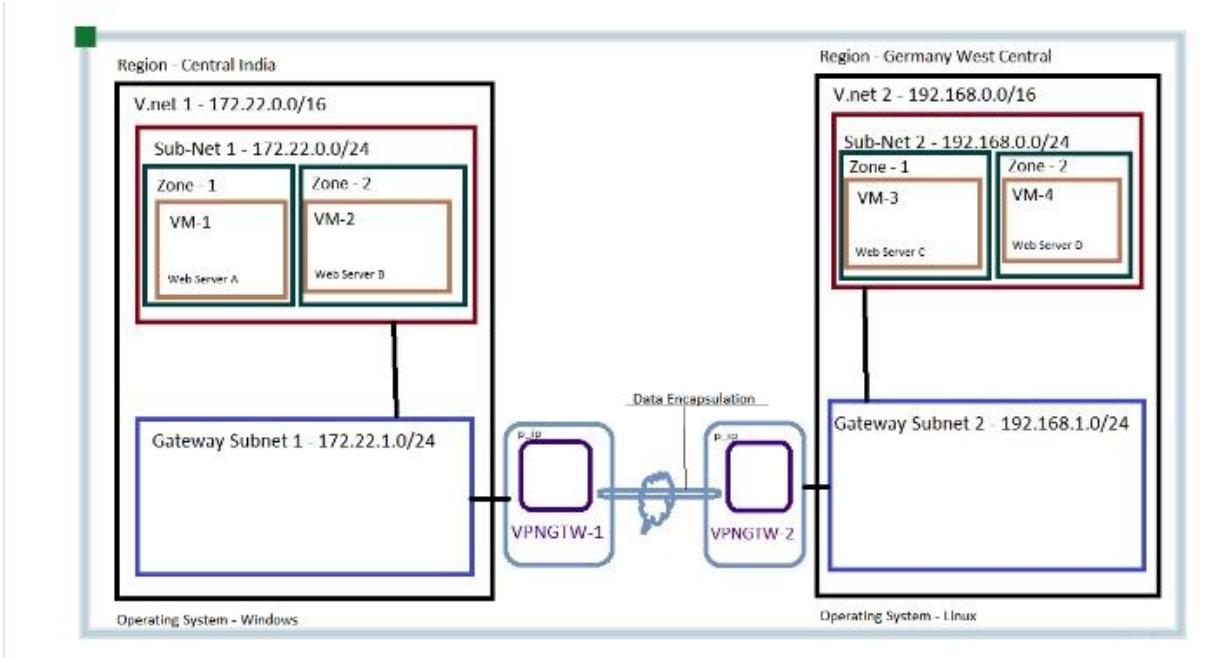
## **Project Description:**

- **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, throughVirtual Private Network Gateway andPeering between their Networks.**

## **Project Step by Step Video Created :-**

<https://drive.google.com/file/d/1El-aqEQJX60r99ZXla6cGYsfZpWj3y70/view?usp=drivesdk>

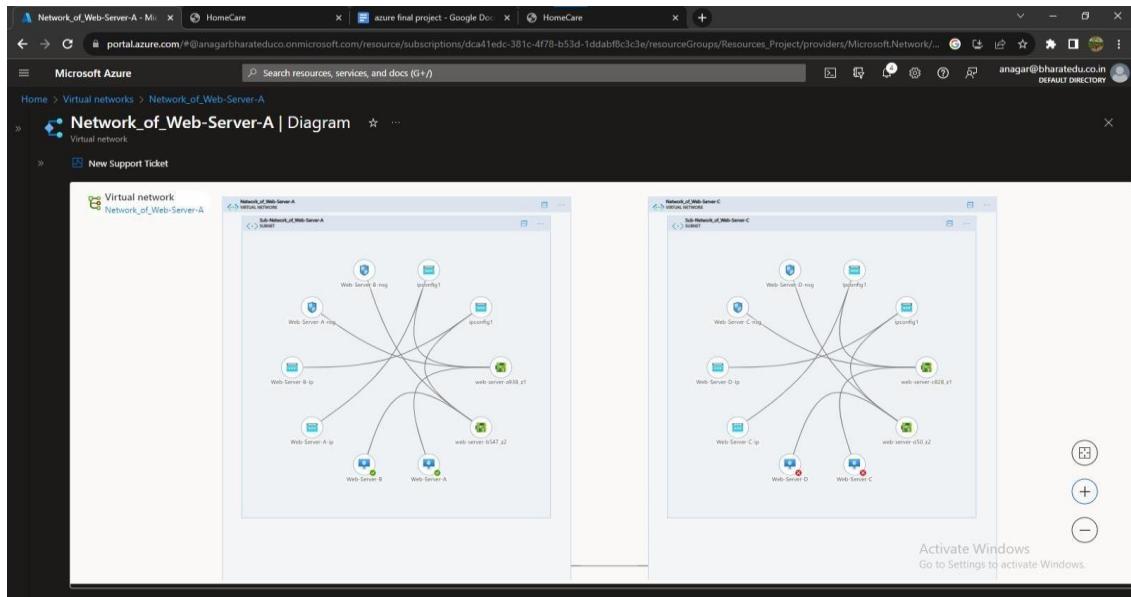
## Architecture :

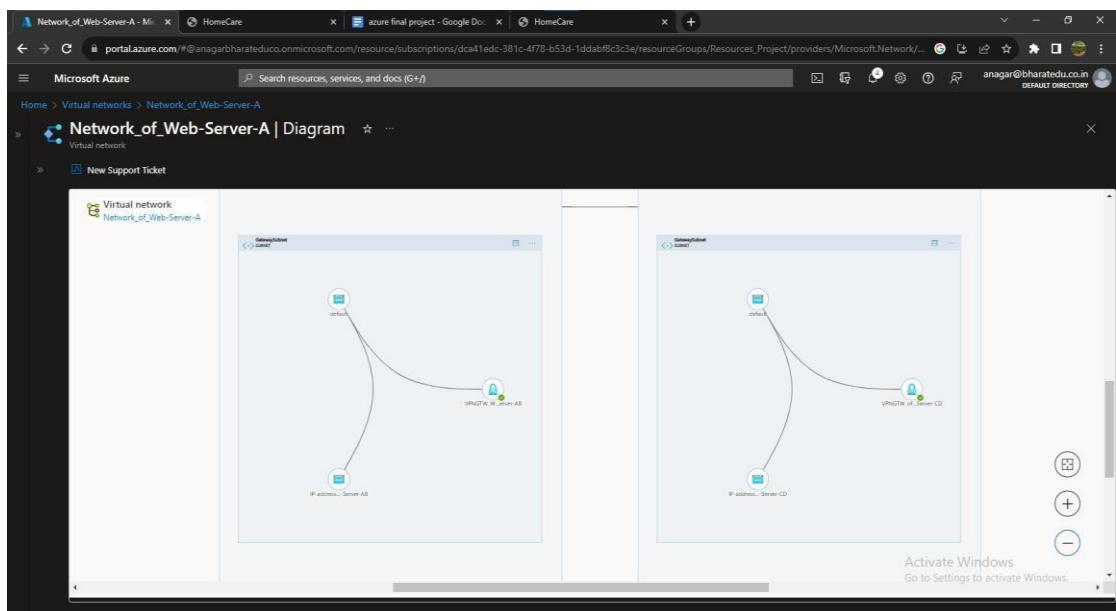


## SERVICE USE

1. **Virtual Machine** :- It's a physical computer system, with its own operating system and applications running on it. It enables users to run multiple independent instances of a computer system on a single physical machine or across multiple physical machines
2. **Virtual Networks** :-A virtual network acts as a logically isolated network within a public cloud environment, allowing you to provision and manage your own virtual network configuration.
3. **Azure Blob Storage** :-Azure Blob Storage is a cloud-based object storage service provided by Microsoft Azure. It offers a scalable and secure solution for storing vast amounts of unstructured data,such as images, videos, documents, logs, and any other type of file.
4. **vpn peering**:- VPC (Virtual Private Cloud) Peering. A VPC peering connection is a networking connection between two VPCs that enables you to route traffic between them using private IPv4 addresses or IPv6 addresses.
5. **Storage Account**:- An Azure Storage Account is a secure account, which provides you access to services in Azure Storage.

# Digram





## . First create a virtual Machine(A)

VM architecture:  x64  
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: Samudha\_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:  None  Allow selected ports

Select inbound ports: HTTPS (443), RDP (3389)

**Review + create >** **< Previous** **Next : Disks >**

Name: Network\_of\_Web-Server-A

Address space:

Address range	Addresses	Overlap
172.22.0.0/16	172.22.0.0 - 172.22.255.255 (65536 addresses)	None
	(0 Addresses)	None

Subnets:

Subnet name	Address range	Addresses
Sub-Network_of_Web-Server-A	172.22.0.0/24	172.22.0.0 - 172.22.0.255 (256 addresses)
		(0 Addresses)

**Review + create >** **< Previous** **Next : Management >** **OK** **Discard**

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:

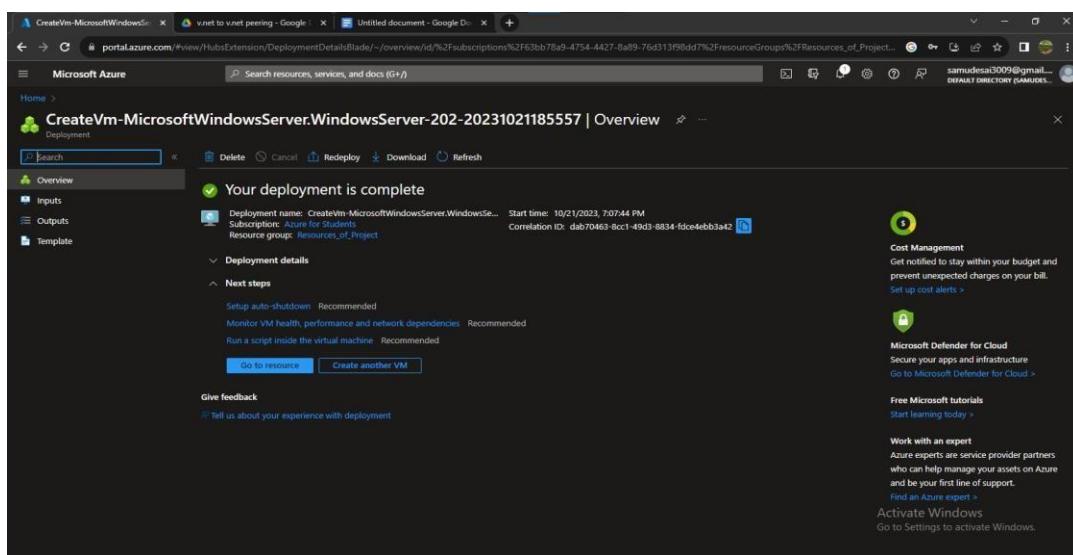
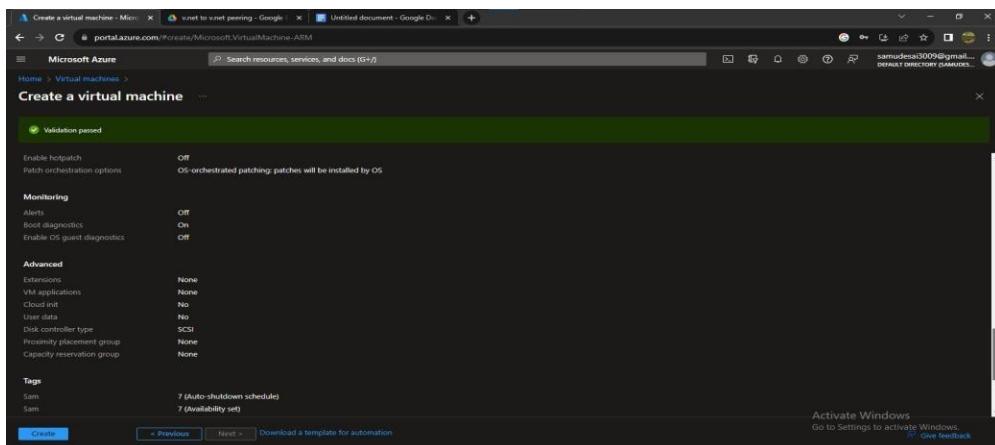
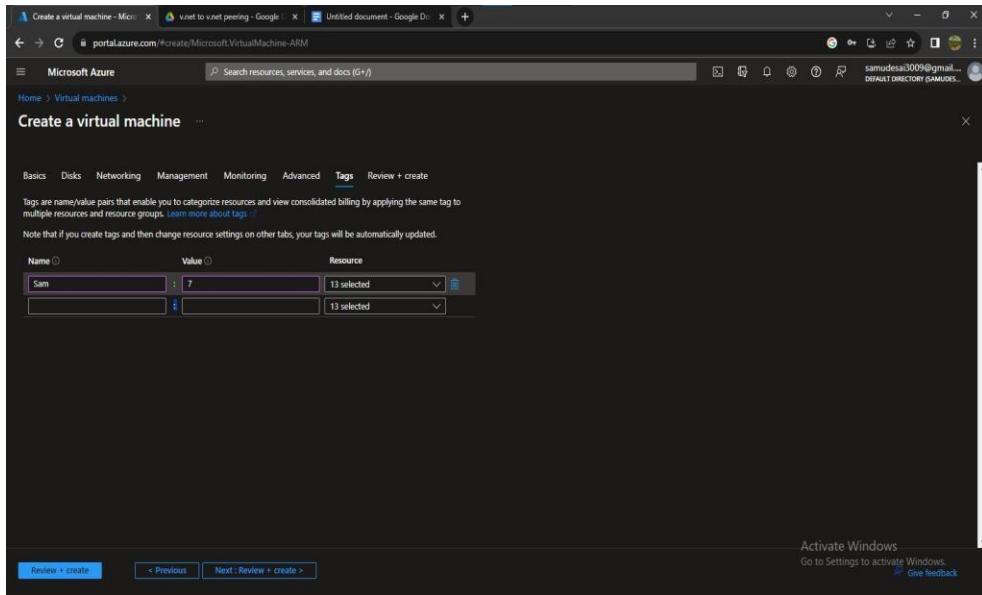
You can place this virtual machine in the backend pool of an existing Azure load balancing solution. [Learn more](#)

Load balancing options:  None  Azure load balancer  Application gateway

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 2<sup>nd</sup> 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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**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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Microsoft Azure | Search resources, services, and docs (G+) | samudesa3009@gmail.com | DEFAULT DIRECTORY (SAMUDESA)

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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.

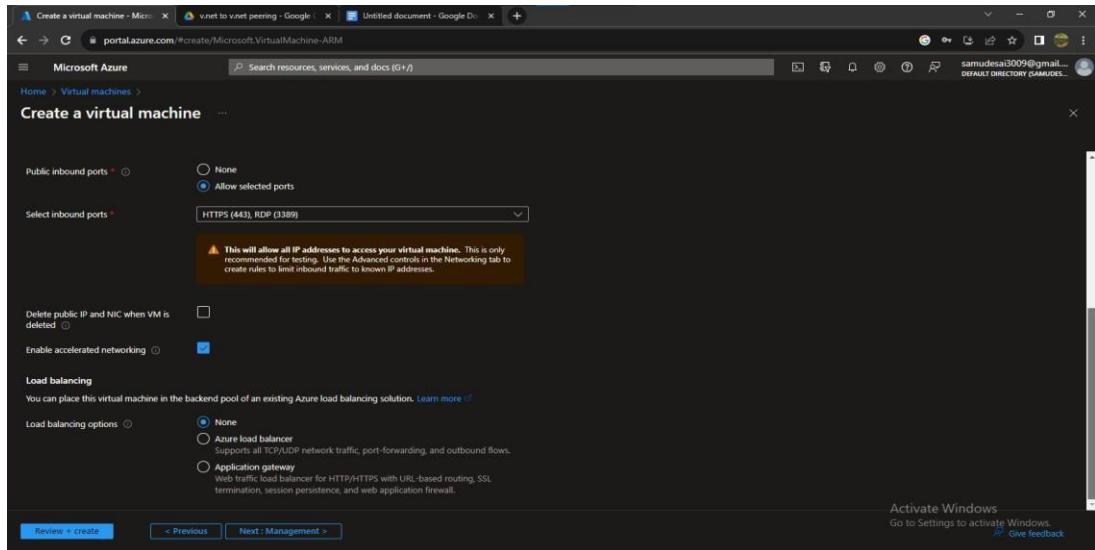
Delete public IP and NIC when VM is deleted:

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 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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Basics Disks Networking Management Monitoring Advanced Tags Review + create

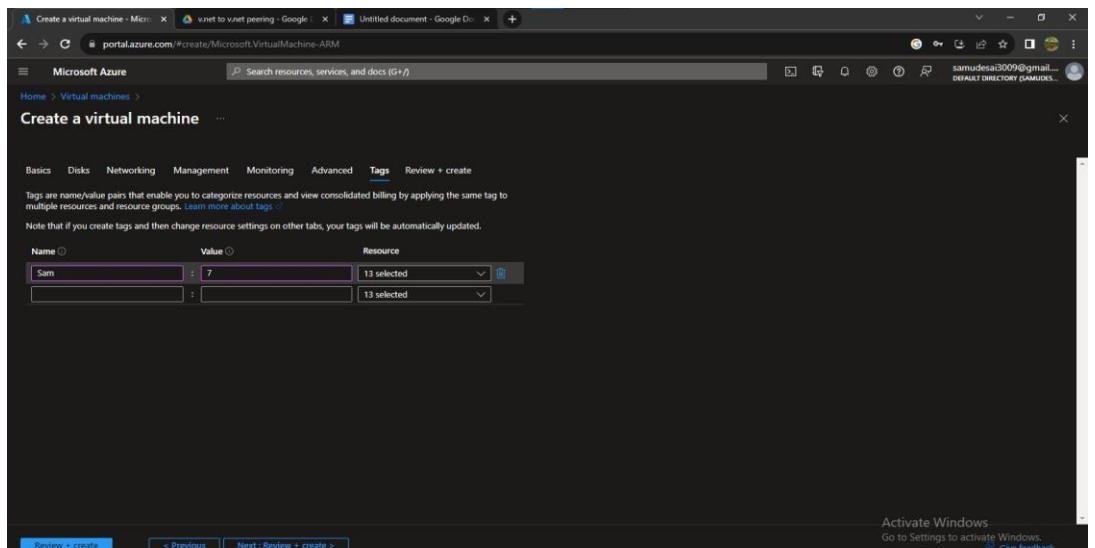
Tags are name/value pairs that enable you to categorize resources and view consolidated billing by applying the same tag to multiple resources and resource groups. [Learn more about tags](#).

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

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Validation passed

Enable hotpatch: Off  
Patch orchestration options: OS-orchestrated patching: patches will be installed by OS

Monitoring

Alerts	Off
Boot diagnostics	On
Enable OS guest diagnostics	Off

Advanced

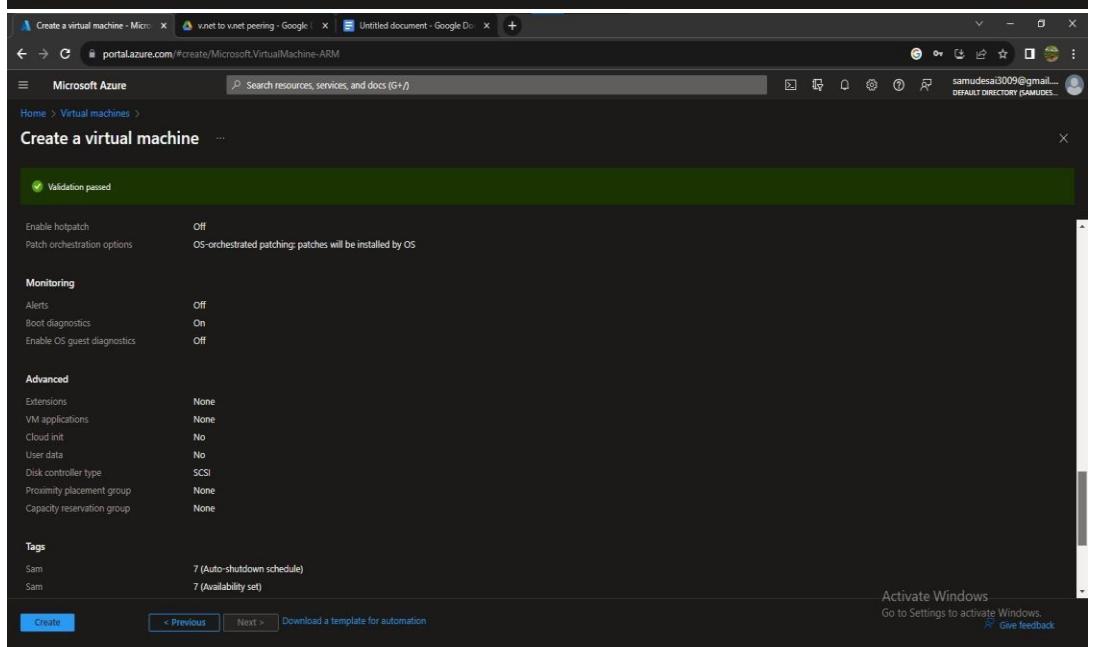
Extensions	None
VM applications	None
Cloud init	No
User data	No
Disk controller type	SCSI
Proximity placement group	None
Capacity reservation group	None

Tags

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

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**CreateVm-MicrosoftWindowsServer.WindowsServer-202-20231021191401 | Overview**

Your deployment is complete

Deployment name: CreateVm-MicrosoftWindowsServer.WindowsServer-202-20231021191401  
Subscription: Azure for Students  
Resource group: Resources\_of\_Project

Start time: 10/21/2023, 7:19:45 PM  
Correlation ID: 4d649ca7-60f7-4ff2-8a71-ct9d1db89d6

**Deployment details**

- 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](#)

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## create a 3<sup>nd</sup> virtual Machine (c) , Zone : Germany west central

**Create a virtual machine**

**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

**Instance details**

Virtual machine name: Web-Server-C  
Region: (Europe) Germany West Central  
Availability options: Availability zone  
Availability zone: Zones 1

You can now select multiple zones. Selecting multiple zones will create one VM per zone. [Learn more >](#)

Security type: Trusted launch virtual machines  
Image: Ubuntu Server 22.04 LTS - x64 Gen2

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**Create a virtual machine**

**Size**: Standard\_D2s\_v3 - 2 vcpus, 8 GiB memory (\$6,592.97/month)

**Administrator account**

Authentication type: SSH public key  
SSH public key source: Generate new key pair  
Key pair name: Sam-Key

**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  
Select inbound ports: HTTPS (443), SSH (22)

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[Create virtual network - Microsoft Azure](#) [vnet to v.net peering - Google Chrome](#) [Untitled document - Google Docs](#)

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**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 own-premises network. [Learn more](#)

Name:

**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
<input type="checkbox"/> 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
<input type="checkbox"/> 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  Create new

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

Public IP:  (new) Web-Server-C-ip  Create new

NIC network security group:  None  Basic  Advanced

Public inbound ports:  None  Allow selected ports

Select inbound ports:  HTTPS (443), SSH (22)

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**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  Azure load balancer  Application gateway

Advanced controls:  Advanced

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**Create a virtual machine**

Tags: Name:  Value:  Resource:

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.

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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)

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**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

**Submitting deployment...** Submitting the deployment template for resource group 'Resources\_of\_Project'.

**CreateVm-canonical.0001-com** | [v.net to v.net peering - Google](#) | [Untitled document - Google Docs](#) | +

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Home >

### CreateVm-canonical.0001-com-ubuntu-server-jammy-2-20231021214119 | Overview

Deployment

Search Delete Cancel Redeploy Download Refresh

**Your deployment is complete**

Deployment name: CreateVm-canonical.0001-com-ubuntu-server-j... Start time: 10/21/2023, 9:51:26 PM

Subscription: Azure for Students Correlation ID: 6e53cd9-406c-4f38-8815-8d7b92d05cfb

**Deployment details**

- 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

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**create a 4<sup>nd</sup> virtual Machine (d) Zone : Germany west central**

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Microsoft Azure

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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.

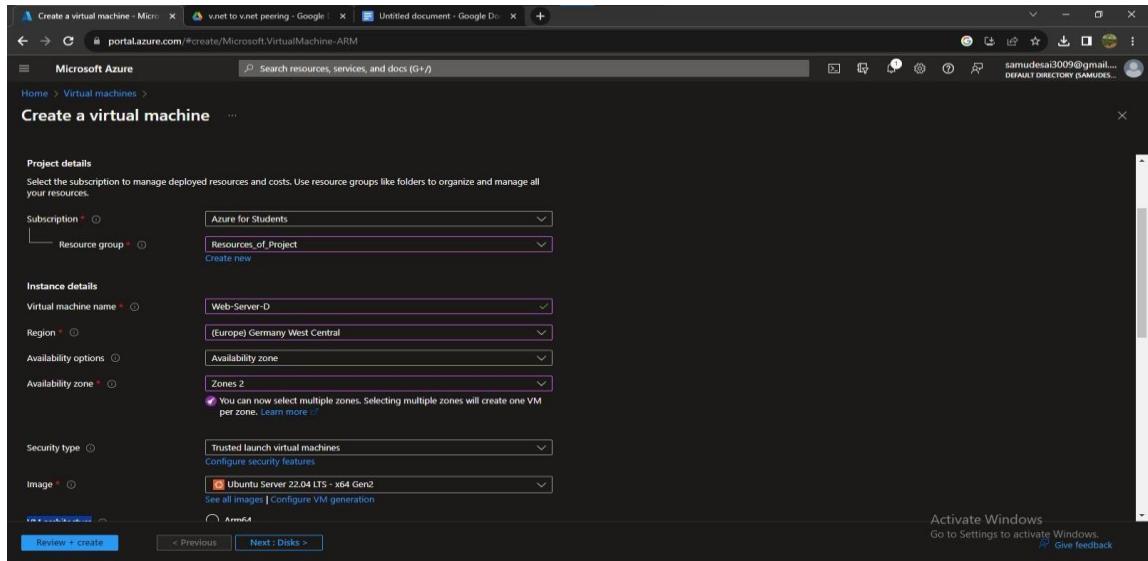
Subscription \*  Resource group \*

**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

Image \*  See all images | Configure VM generation

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Microsoft Azure

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**Administrator account**  
Size \*  See all sizes

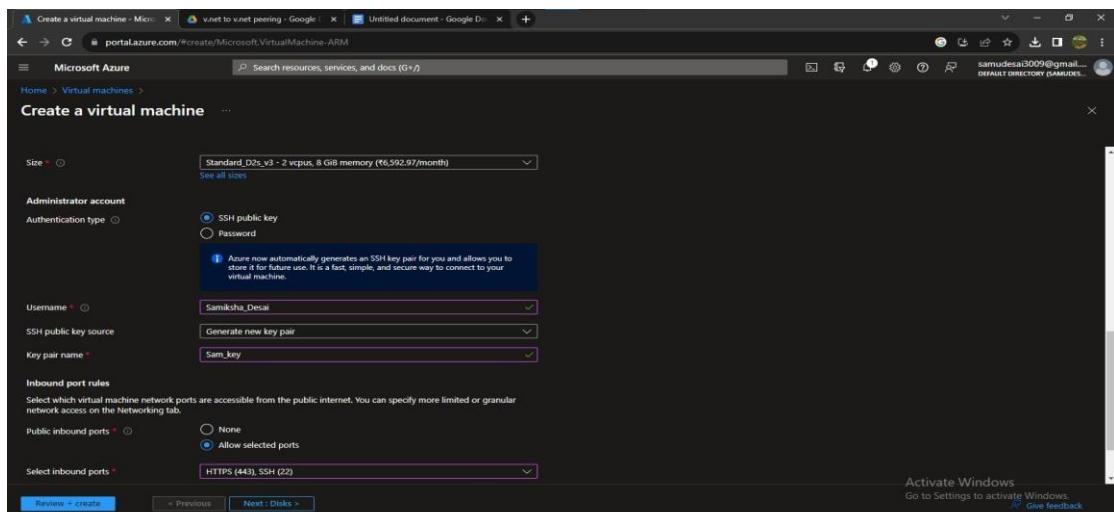
Authentication type    
Azure now automatically generates an SSH key pair for you and allows you to store it for future use. It is a fast, simple, and secure way to connect to your virtual machine.

Username \*  SSH public key source  Key pair name \*

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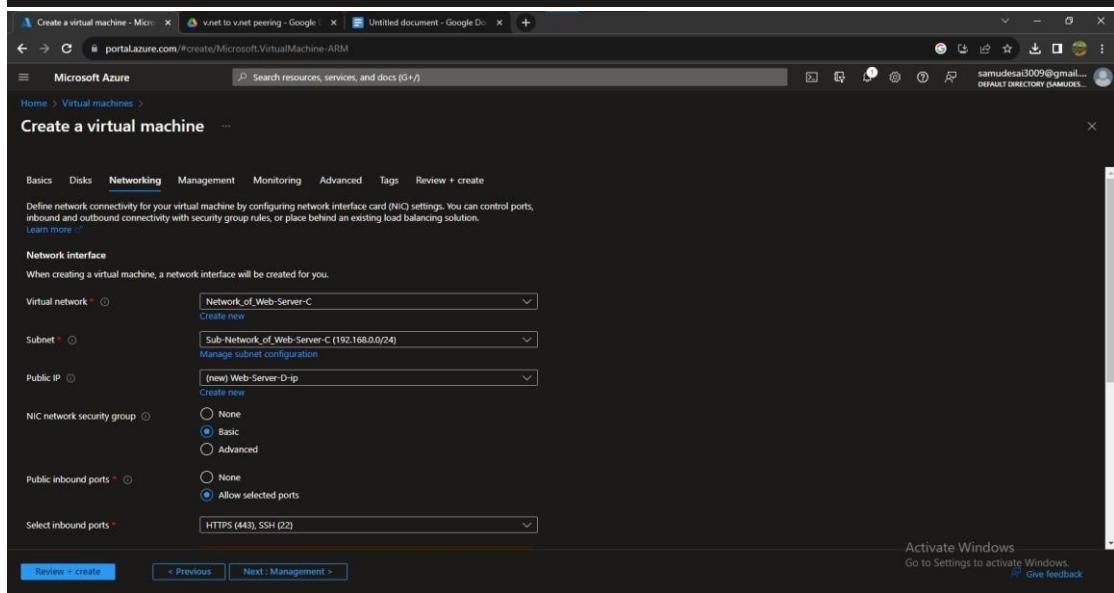
**Networking** Basics Disks Management Monitoring Advanced Tags Review + create

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 \*  Create new  
Subnet \*  Manage subnet configuration  
Public IP \*  Create new  
NIC network security group \*     
Public inbound ports \*   Select inbound ports

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Advanced

Public inbound ports \*  Allow selected ports  None

Select inbound ports \*

**⚠ 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

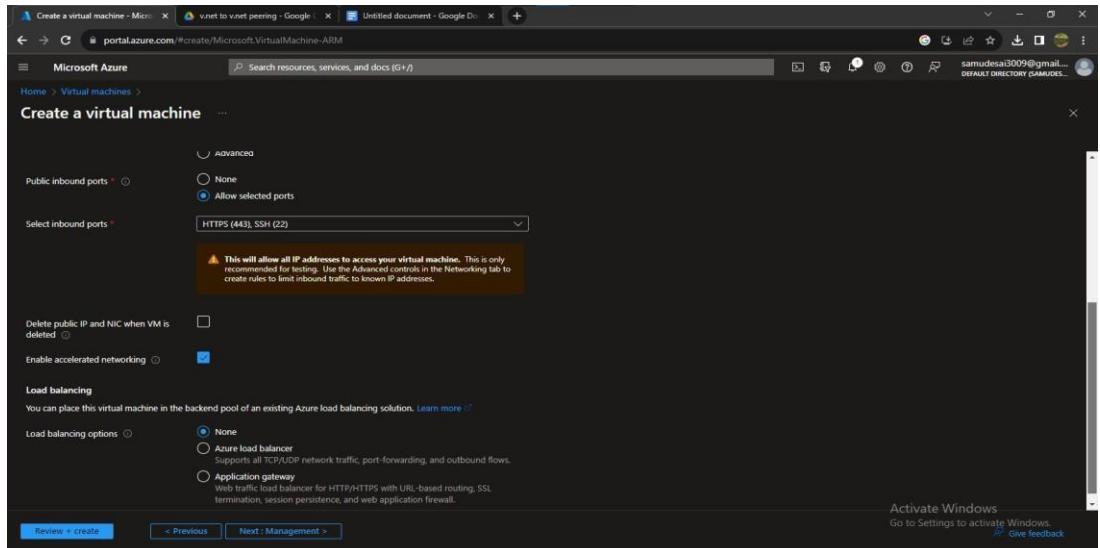
Enable accelerated networking

Load balancing  None  Azure load balancer  Application gateway

You can place this virtual machine in the backend pool of an existing Azure load balancing solution. [Learn more ↗](#)

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

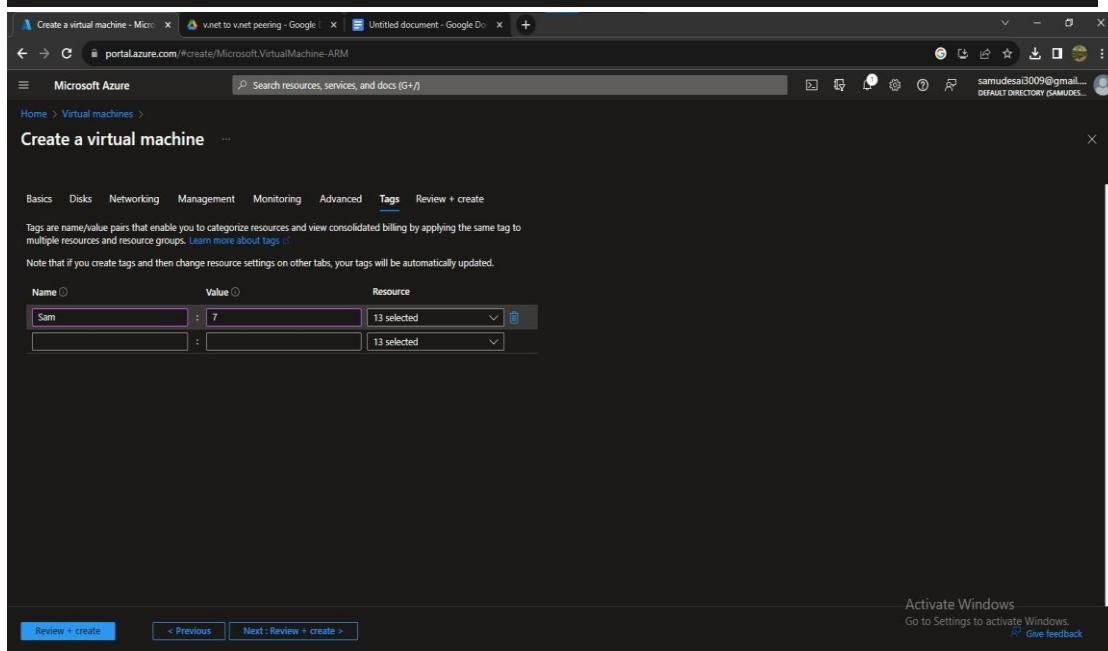
Tags: are name/value pairs that enable you to categorize resources and view consolidated billing by applying the same tag to multiple resources and resource groups. [Learn more about tags ↗](#)

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] <input type="button" value="Delete"/>
		[13 selected] <input type="button" value="Delete"/>

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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)

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Validation passed

Monitoring

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

**Advanced**

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- Capacity reservation group None

**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**

**Tags**

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

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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	Disk
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	29.52.183.81	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

## Add Peering

**Add peering**

Network\_of\_Web-Server-A

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**

Virtual networks

Name	Peer	Gateway transit
Network_of_Web-Server-A	Network_of_Web-Server-C	Enabled

**Network\_of\_Web-Server-C | Peering**

Virtual networks

Name	Peer	Gateway transit
Network_of_Web-Server-C	Network_of_Web-Server-A	Enabled

## Add Subnet

The image consists of three vertically stacked screenshots of the Microsoft Azure portal, illustrating the steps to add a subnet to a virtual network.

**Screenshot 1: Adding a Subnet to Network\_of\_Web-Server-A**

In this screenshot, the user is in the "Subnets" section of the "Network\_of\_Web-Server-A" virtual network. A new subnet named "GatewaySubnet" is being created with the address range 172.22.1.0/24. The "Add IPv6 address space" checkbox is unchecked. Other settings like NAT gateway, Network security group, and Route table are set to "None". The "Save" button is visible at the bottom right.

**Screenshot 2: View of Network\_of\_Web-Server-A Subnets**

This screenshot shows the list of subnets for "Network\_of\_Web-Server-A". It lists two subnets: "Sub\_Network\_of\_Web..." (172.22.0.0/24) and "GatewaySubnet" (172.22.1.0/24). The "Available IPs" column shows 249 for the first and "availability dependent" for the second. The "Delegated to" and "Security group" columns are empty. The "Route table" column shows "None". An "Activate Windows" message is present at the bottom right.

**Screenshot 3: Adding a Subnet to Network\_of\_Web-Server-C**

In this screenshot, the user is in the "Subnets" section of the "Network\_of\_Web-Server-C" virtual network. A new subnet named "GatewaySubnet" is being created with the address range 192.168.1.0/24. Similar to the first screenshot, it includes options for IPv6, NAT gateway, Network security group, and Route table, all set to "None". The "Save" button is visible at the bottom right.

## Then create virtual network gateway

The image consists of three vertically stacked 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 (selected)  
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.  
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**

Activate Windows: Go to Settings to activate Windows.

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

Create virtual network gateway

Validation passed

Basics Tags Review + create

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

Activate Windows  
Go to Settings to activate Windows.

Create Previous Next Download a template for automation

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:  VPN  ExpressRoute  
SKU: VpnGw1  
Generation: Generation1  
Virtual network: Network\_of\_Web-Server-C  
Subnet: GatewaySubnet (192.168.1.0/24)

Activate Windows  
Go to Settings to activate Windows.

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

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.

Activate Windows  
Go to Settings to activate Windows.

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

**Create virtual network gateway**

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

Activate Windows  
Go to Settings to activate Windows.

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

**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**

Tag	Value
Sam	7

Activate Windows  
Go to Settings to activate Windows.

Create Previous Next Download a template for automation

**Virtual network gateways - Microsoft Azure**

portal.azure.com/#view/HubsExtension/BrowseResource/resourceType/Microsoft.Network%2fVirtualNetworkGateways

Microsoft Azure

Search resources, services, and docs (G+)

Home > Virtual network gateways >

### Virtual network gateways

Default Directory (samudesa3009@gmail.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

Show 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.

< Previous Page 1 of 1 Next >

[Create connection - Microsoft A.](#) [Untitled document - Google Doc](#) +

portal.azure.com/#view/Microsoft\_Azure\_HybridNetworking/CreateConnectionBladeV2

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

Basics Settings Tags Review + create

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

**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 A.](#) [Untitled document - Google Doc](#) +

portal.azure.com/#view/Microsoft\_Azure\_HybridNetworking/CreateConnectionBladeV2

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

Basics Settings Tags Review + create

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

Virtual network gateway

First virtual network gateway: VPNGTW\_of\_Web-Server-CD  
Second virtual network gateway: VPNGTW\_of\_Web-Server-AB  
Shared key (PSK):  [Change](#)  
IKE Protocol: 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.

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

[Create connection - Microsoft A.](#) [Untitled document - Google Doc](#) +

portal.azure.com/#view/Microsoft\_Azure\_HybridNetworking/CreateConnectionBladeV2

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

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 <a href="#">Edit</a>
	:	Connection <a href="#">Edit</a>

Activate Windows  
Go to Settings to activate Windows.

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

**Create connection - Microsoft** Untitled document - Google Docs portal.azure.com/#view/Microsoft\_Azure\_HybridNetworking/CreateConnectionBladeV2

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

Home > Virtual network gateways > VPNGTW\_of\_Web-Server-CD | Connections > Create connection

Validation passed

Basics Settings Tags Review + create

**Basics**

Subscription	Azure for Students
Resource group	Resources_of_Project
Region	Germany West Central
Connection type	VNet-to-VNet
Establish bi-directional 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**

Deployment

Overview

Your deployment is complete

Deployment name : NoMarketplace-20231021233001  
Subscription : Azure for Students  
Resource group : Resources\_of\_Project

Start time : 10/21/2023, 11:33:27 PM  
Correlation ID : ef50a1b9-5ce4-4b6c-b4a6-de580573cd2

Delete Cancel Redeploy Download Refresh

**Cost management**  
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**Activate Windows**  
Go to Settings to activate Windows.

**VPNGTW\_of\_Web-Server-CD | Connections**

Virtual network gateway

Create Manage view ...

Search

Overview Activity log Access control (IAM) Tags Diagnose and solve problems

Filter for any field...

Name

- VPNGTW\_of\_Web-Server-AB
- VPNGTW\_of\_Web-Server-CD

Settings Configuration Connections Point-to-site configuration Properties Locks Monitoring Logs Alerts Metrics BGP peers Automation Tasks (preview)

Page 1 of 1

**Activate Windows**  
Go to Settings to activate Windows.

Microsoft Azure | Virtual network gateways > VPNGTW\_of\_Web-Server-AB

### VPNGTW\_of\_Web-Server-AB | 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

Microsoft Azure | Virtual machines > Web-Server-A

### Web-Server-A | Connect

**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.

**Open Remote Desktop Connection (on Windows)**

Open Remote Desktop Connection. Or change your local machine operating system to view more instructions. Learn more

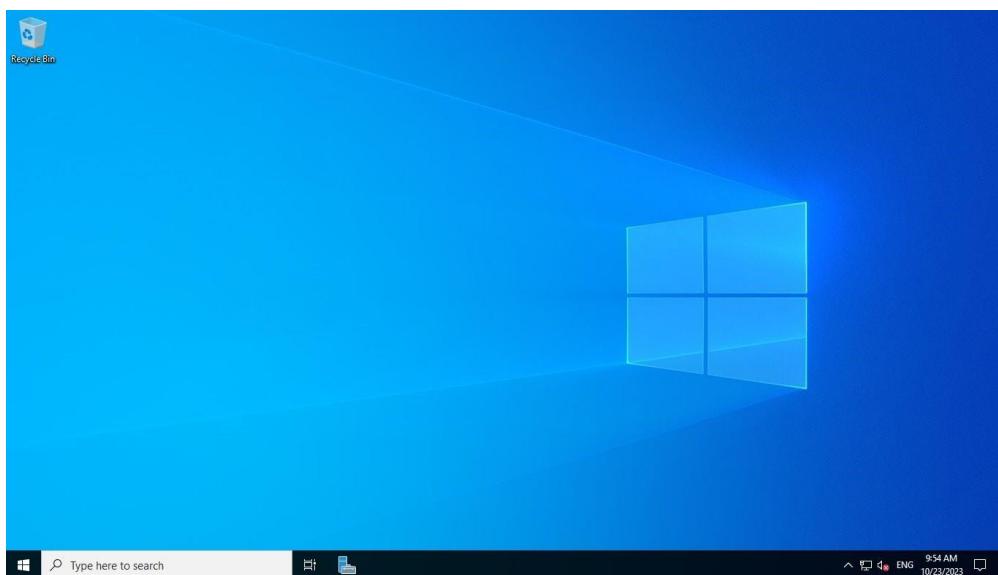
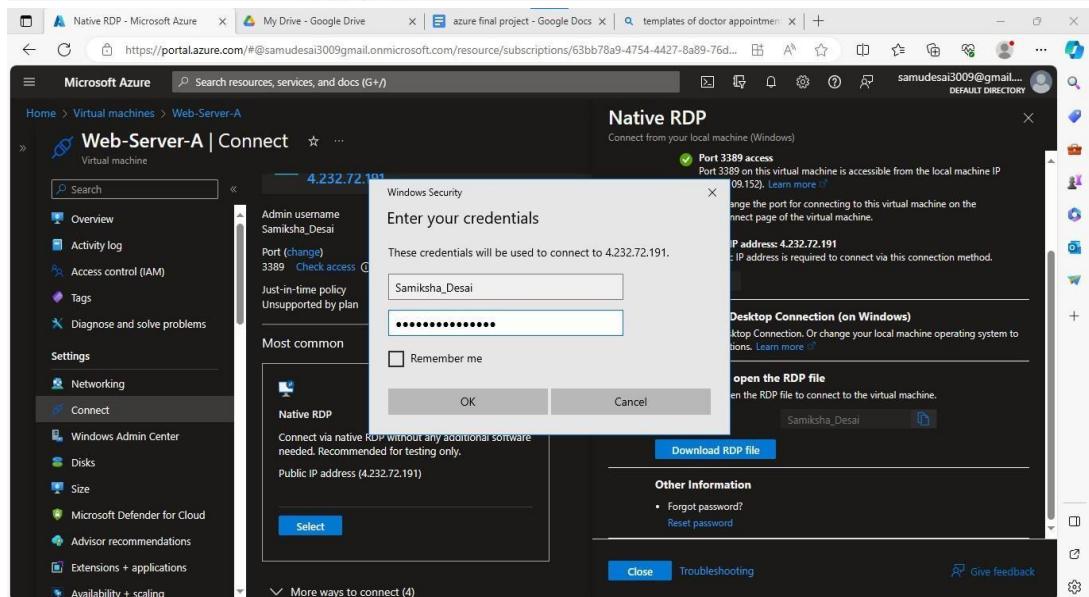
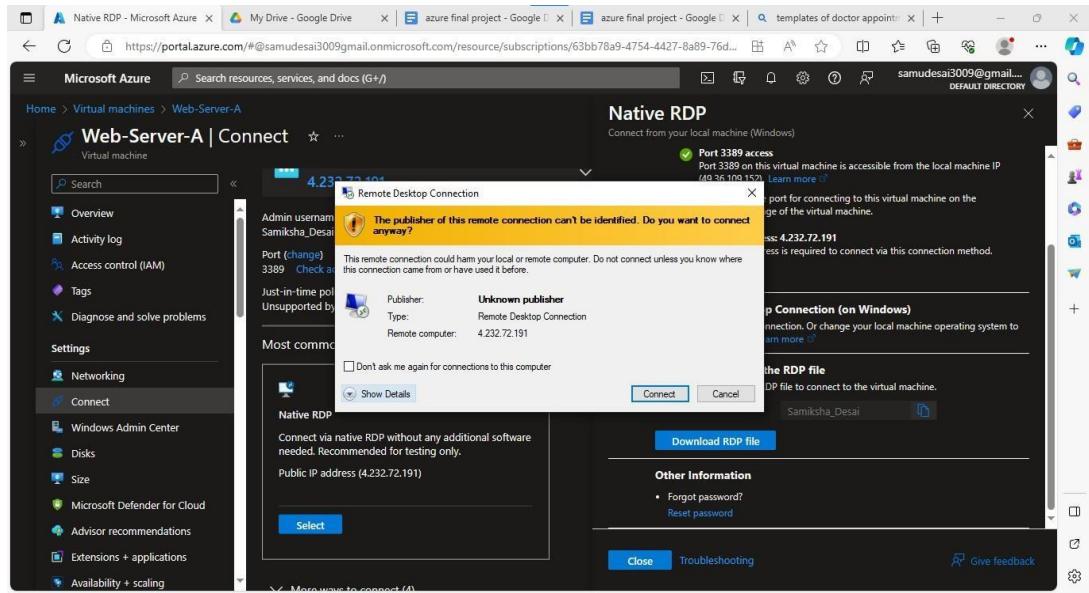
**Download and open the RDP file**

Download and open the RDP file to connect to the virtual machine.

Username: Samiksha\_Desai

**Other Information**

- Forgot password? Reset password



**Server Manager** Server Manager • Dashboard

**Add Roles and Features Wizard**

**Before you begin**

This wizard helps you install roles, role services, or features. You determine which roles, role services, or features to install based on the computing needs of your organization, such as sharing documents, or hosting a website.

To remove roles, role services, or features:  
Start the Remove Roles and Features Wizard

Before you continue, verify that the following tasks have been completed:

- The Administrator account has a strong password
- Network settings, such as static IP addresses, are configured
- The most current security updates from Windows Update are installed

If you must verify that any of the preceding prerequisites have been completed, close the wizard, complete the steps, and then run the wizard again.

To continue, click Next.

Skip this page by default

< Previous | Next > | Install | Cancel

DPA results | Performance | BPA results

10/23/2023 9:57 AM | 10/23/2023 9:57 AM

**Server Manager** Server Manager • Dashboard

**Add Roles and Features Wizard**

**Select installation type**

Select the installation type. You can install roles and features on a running physical computer or virtual machine, or on an offline virtual hard disk (VHD).

**Role-based or feature-based installation**  
Configure a single server by adding roles, role services, and features.

**Remote Desktop Services installation**  
Install required role services for Virtual Desktop Infrastructure (VDI) to create a virtual machine-based or session-based desktop deployment.

< Previous | Next > | Install | Cancel

DPA results | Performance | BPA results

10/23/2023 9:57 AM | 10/23/2023 9:57 AM

**Server Manager** Server Manager • Dashboard

**Add Roles and Features Wizard**

**Select server roles**

Add features that are required for Web Server (IIS)?

The following tools are required to manage this feature, but do not have to be installed on the same server.

**Web Server (IIS)**  
 Management Tools  
[Tools] IIS Management Console

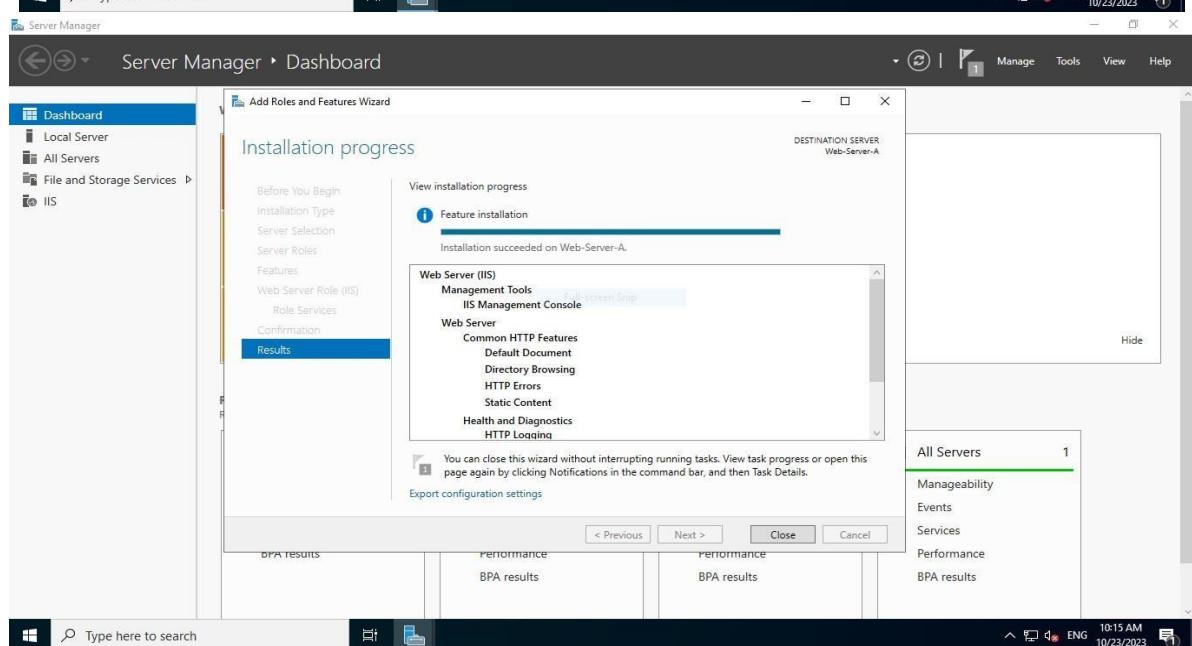
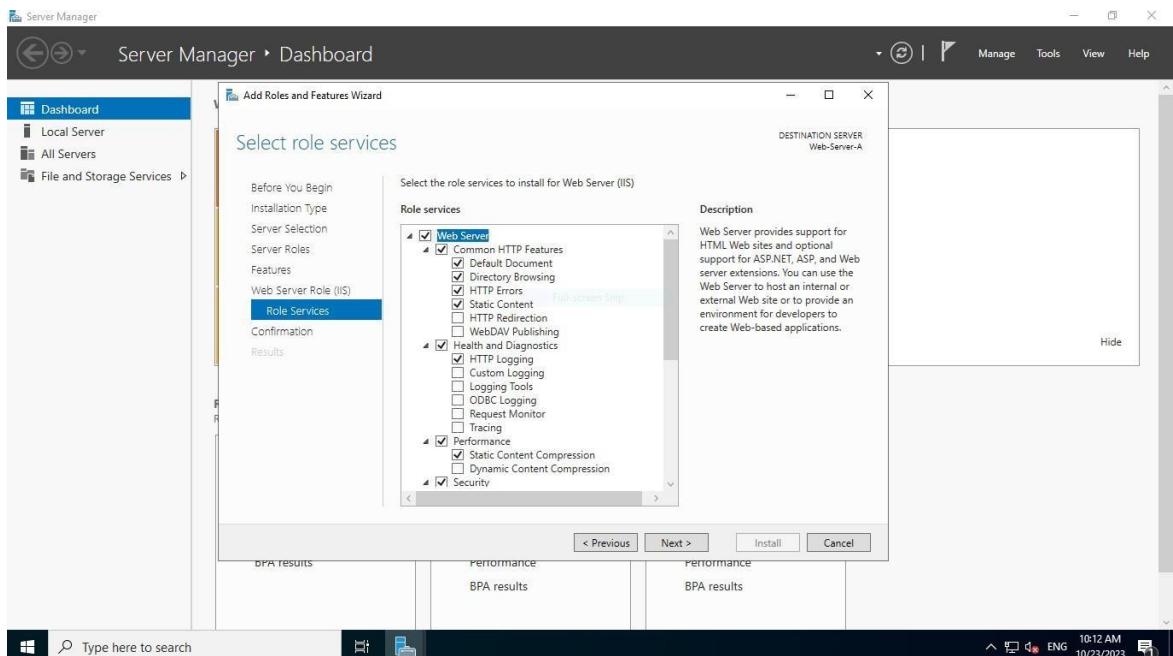
Include management tools (if applicable)

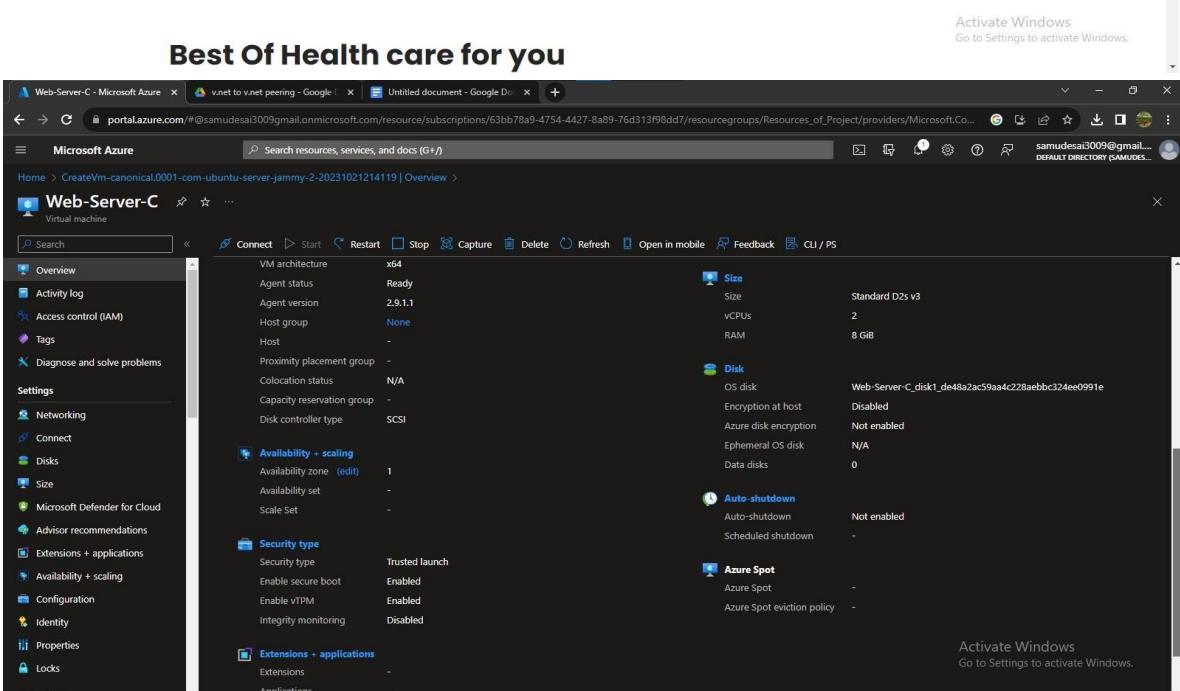
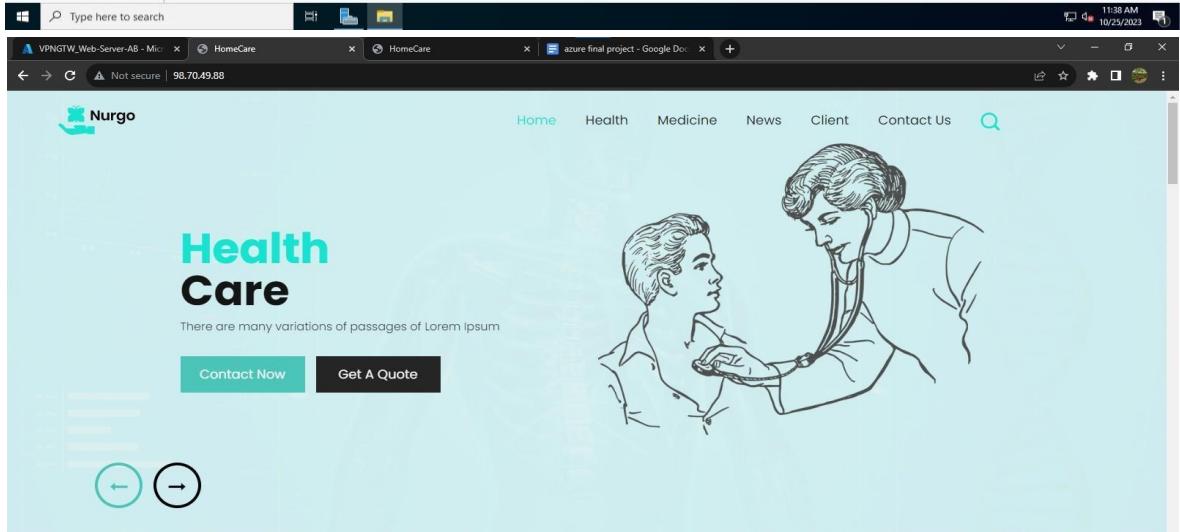
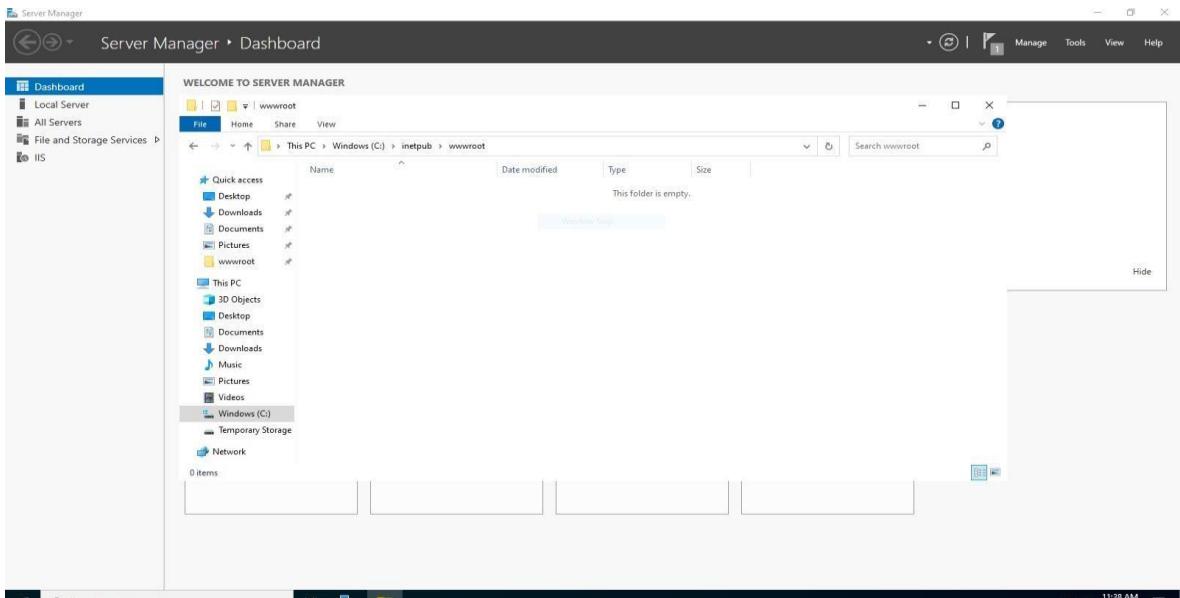
Add Features | Cancel

< Previous | Next > | Install | Cancel

DPA results | Performance | BPA results

10/23/2023 9:57 AM | 10/23/2023 9:57 AM





## Connect virtual machine C

The screenshot shows the Microsoft Azure portal interface. On the left, there's a sidebar with 'Virtual machines' and a list of four servers: Web-Server-A, Web-Server-B, Web-Server-C, and Web-Server-D. The 'Web-Server-C' item is selected. On the right, a detailed view of 'Web-Server-C' is shown, including its properties like operating system (Linux (ubuntu 22.04)), publisher (canonical), offer (0001-com-ubuntu-server-jammy), and plan (22\_04-lts-gen2). A 'Command Prompt' window is open, showing an SSH session connected to the server. The command entered is 'ssh -i C:/Users/user/Sam-Key.pem Samiksha\_Desai@51.116.128.154'. The response indicates a Microsoft Windows version (10.0.19842.1415) and copyright information. The portal also shows network settings for the server.

The screenshot shows a web browser displaying a website for 'Nurgo'. The page has a light blue background with a central illustration of a doctor examining a patient. The doctor is wearing a stethoscope and holding a clipboard. The patient is seated, facing the doctor. Below the illustration, there's a section with the text 'Health Care' and a placeholder text 'There are many variations of passages of Lorem Ipsum'. There are two buttons: 'Contact Now' (in green) and 'Get A Quote' (in black). At the bottom of the page, there are navigation arrows for a slide show. The browser's address bar shows the URL '98.70.49.88'.

**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**

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**

Protect your data from accidental or erroneous deletion or modification.

Enable point-in-time restore for containers  
Point-in-time restore allows you 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**

**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: project8storage  
Region: (Europe) Germany West Central  
Performance: Standard: Recommended for most scenarios (general-purpose v2 account)

**Networking**

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)

**Upload blob**

1 file(s) selected: .DS\_Store  
Drag and drop files here or [Browse for files](#)

Select an existing container: containerofproject  
Create new

Overwrite if files already exist

**Upload**

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

A VPNGTW\_Web-Server-AB - Microsoft Edge

Not secure | 20.193.149.247

HomeCare

HomeCare

azure final project - Google Doc

Nurgo

Home Health Medicine News Client Contact Us

Health Care

There are many variations of passages of Lorem Ipsum

Contact Now Get A Quote

Activate Windows  
Go to Settings to activate Windows.

Best Of Health care for you