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Department of Software Engineering

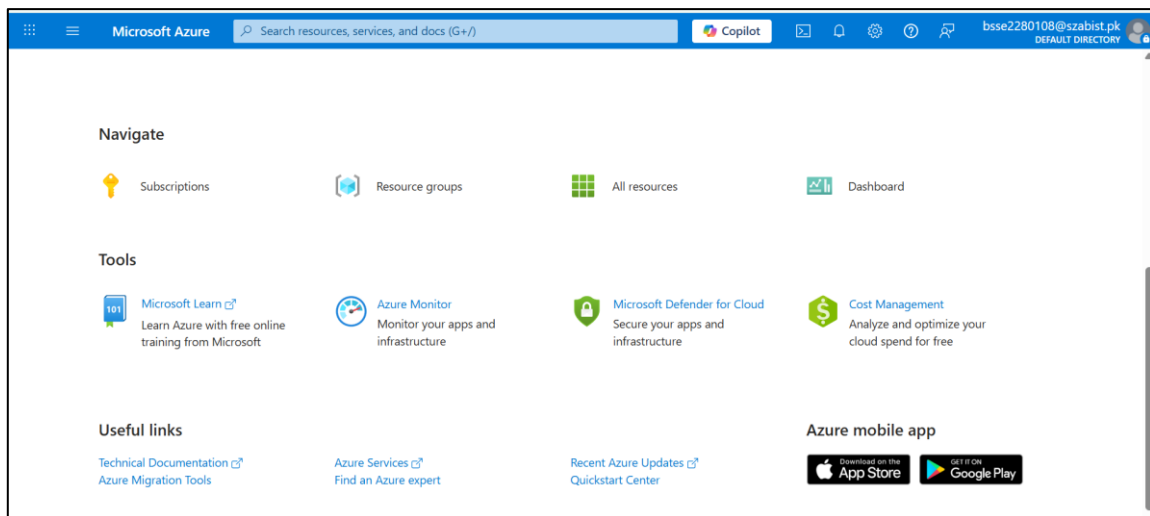
Bisma Saeed – 2280108

BSSE – 7A

Lab: 01

Task 1: Create the virtual machine

1. Sign-in to the Azure portal: <https://portal.azure.com>
2. From the All services blade in the Portal Menu, search for and select Virtual machines, and then click +Create and choose +Azure Virtual machine from the drop down.



3. On the Basics tab, fill in the following information (leave the defaults for everything else):

Create a virtual machine

Help me create a VM optimized for high availabilityHelp me create a low cost VM

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

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 *

rg-myVM-lab

Create new

Instance details

Virtual machine name *

myVM

Region *

(Asia Pacific) Central India

Deploy to an Azure Extended Zone

Availability options

No infrastructure redundancy required

Security type

Trusted launch virtual machines

Configure security features

Image *

Windows Server 2019 Datacenter - x64 Gen2

See all images | Configure VM generation

VM architecture

Arm64

☒ x64

Create a virtual machine

Help me create a VM optimized for high availabilityHelp me create a low cost VM

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

Size *

Standard_D2s_v3 - 2 vcpus, 8 GiB memory (\$143.81/month)

See all sizes

Enable Hibernation

☐

Info

Hibernate is not supported by the size that you have selected. Choose a size that is compatible with Hibernation to enable this feature. [Learn more](#)

Administrator account

Username *

azureuser

Password *

.....

Confirm password *

.....

Inbound port rules

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

Public inbound ports *

☐ None

☒ Allow selected ports


Select inbound ports *

HTTP (80), RDP (3389)

- Switch to the Networking tab to ensure HTTP (80) and RDP (3389) are selected in section Select inbound ports.

Select inbound ports *

HTTP (80), RDP (3389) ▾

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

- Switch to the Management tab, and in its Monitoring section, select the following setting:
Settings Values: Boot diagnostics Disable

Diagnostics

Boot diagnostics ⓘ

☐ Enable with managed storage account (recommended)

☐ Enable with custom storage account

☒ Disable

- Leave the remaining values on the defaults and then click the Review + create button at the bottom of the page.

Microsoft Azure

Search resources, services, and docs (G+)

Copilot

bsse2280108@szabist.pk

DEFAULT DIRECTORY (BSSE22801...

Home > Create a resource >

Create a virtual machine

Help me create a VM optimized for high availability


Help me create a low cost VM

Help me choose the right VM size for my workload

Validation passed

- Once Validation is passed click the Create button. It can take anywhere from five to seven minutes to deploy the virtual machine.

Deployment is in progress

 Deployment name : CreateVm-MicrosoftWindowsServer.WindowsServer-201-20251023202102

Subscription : [Azure for Students](#)

Resource group : [rg-myVM-lab](#)

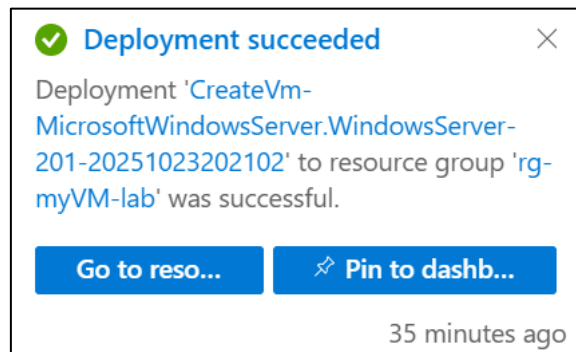
Start time : 10/23/2025, 8:27:23 PM

Correlation ID : 46d6ac19-135f-4915-8376-3032af9c61fb

Task 2: Connect to the virtual machine

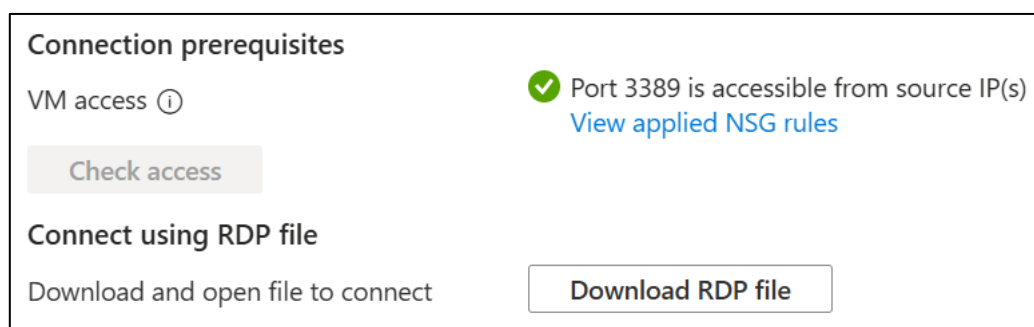
1. Click on bell icon from the upper blue toolbar, and select 'Go to resource' when your deployment has succeeded.

Note: You could also use the Go to resource link on the deployment page

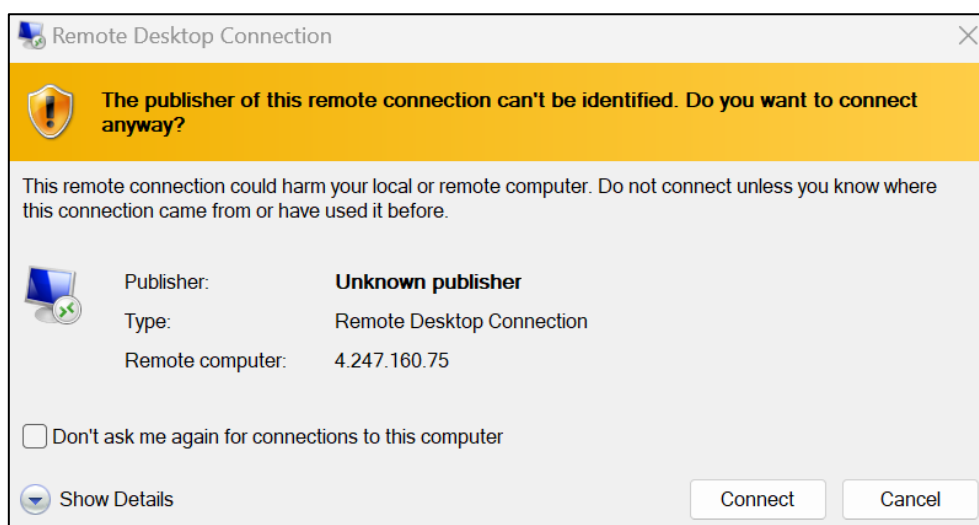


2. On the virtual machine Overview blade, click Connect button and choose RDP from the drop down.

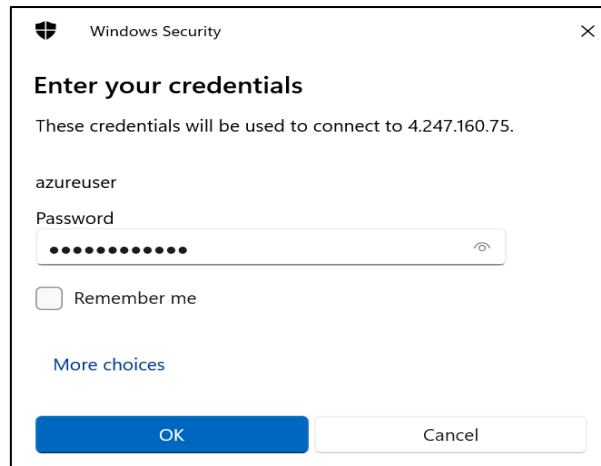
3. On the Connect to virtual machine page, keep the default options to connect with the public IP address over port 3389 and click Download RDP File. A file will download on the bottom left of your screen.



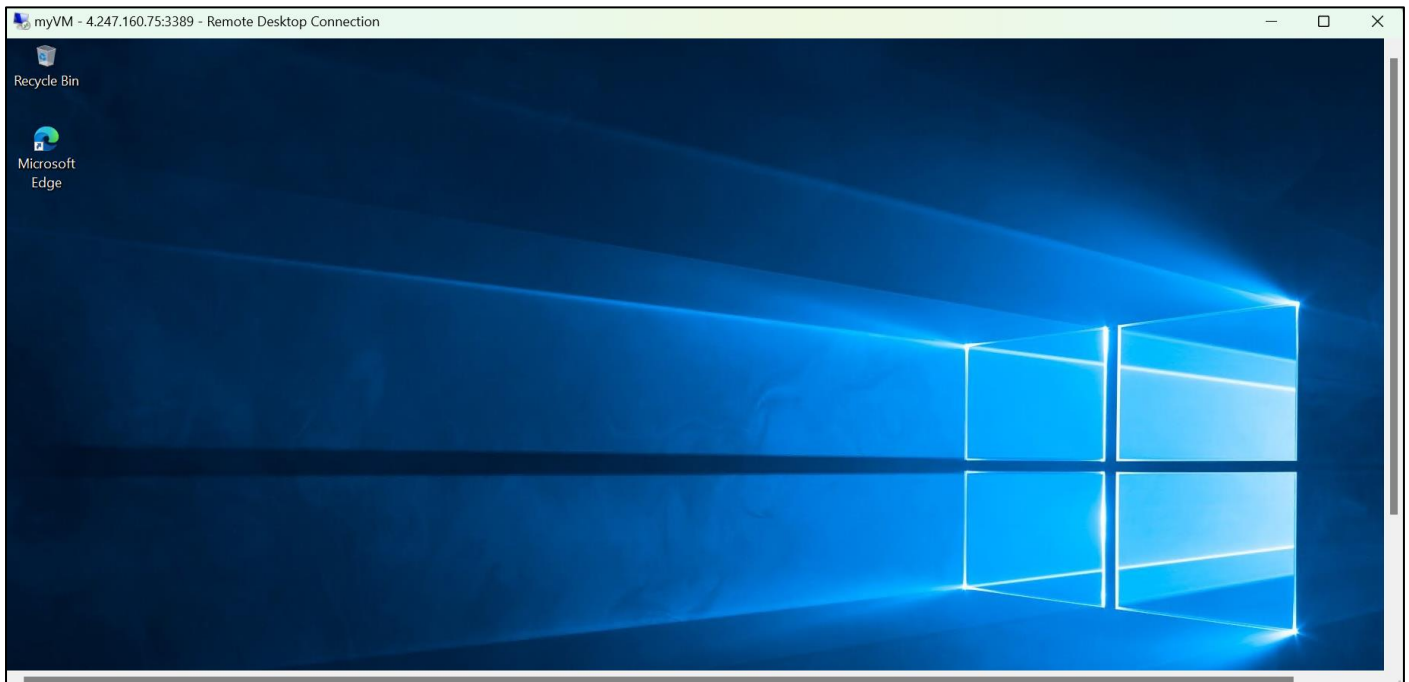
4. Open the downloaded RDP file (located on the bottom left of your lab machine) and click Connect when prompted.



5. In the Windows Security window, sign in using the Admin Credentials you used when creating your VM azureuser and the password Pa\$\$w0rd1234.



6. You may receive a warning certificate during the sign-in process. Click Yes or to create the connection and connect to your deployed VM. You should connect successfully.



Task 3: Install the web server role and test

In this task, install the Web Server role on the server on the Virtual Machine you just created and ensure the default IIS

welcome page will be displayed.

1. In the newly opened virtual machine, launch PowerShell by searching PowerShell in the search bar, when found right click Windows PowerShell to Run as administrator.

2. In PowerShell, install the Web-Server feature on the virtual machine by running the following command. (Paste in the command and hit ENTER for the installment to begin).

Code: `Install-WindowsFeature -name Web-Server -IncludeManagementTools`

3. When completed, a prompt will state Success with a value True. You do not need to restart the virtual machine to complete the installation. Close the RDP connection to the VM by clicking the x on the blue bar at the top center of your virtual machine. You can also minimize it by clicking the - on the blue bar at the top center.

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

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

PS C:\Users\azureuser>
```

3. Back in the portal, navigate back to the Overview blade of myVM and, use the Click to clipboard button to copy the public IP address of myVM, then open a new browser tab, paste the public IP address into the URL text box, and press the Enter key to browse to it.

^ Essentials

Resource group (move)
[rg-myVM-lab](#)

Status
Running

Location
Central India

Subscription (move)
[Azure for Students](#)

Subscription ID
56e803bd-09a5-4d9d-8f86-770890614786

Operating system
Windows (Windows Server 2019 Datacenter)

Size
Standard D4s v2 (4 vCPUs, 8 GiB memory)

Primary NIC
[4.247.160.75](#)

Virtual network/subnet
[myVM-vnet/default](#)

DNS name

JSON View

4. The default IIS Web Server welcome page will be displayed.

