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Department of Software Engineering

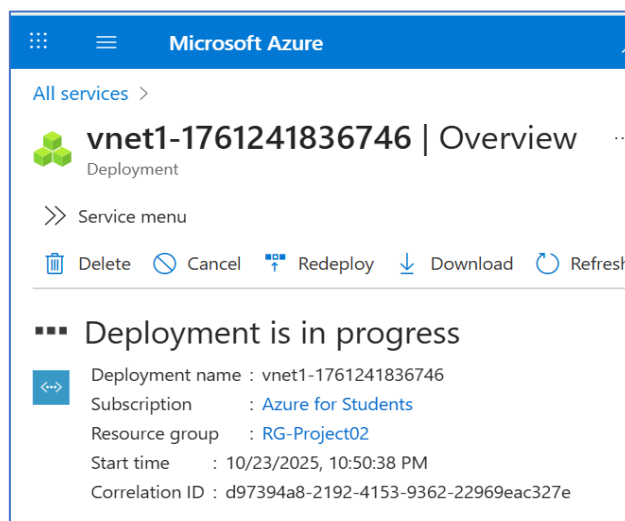
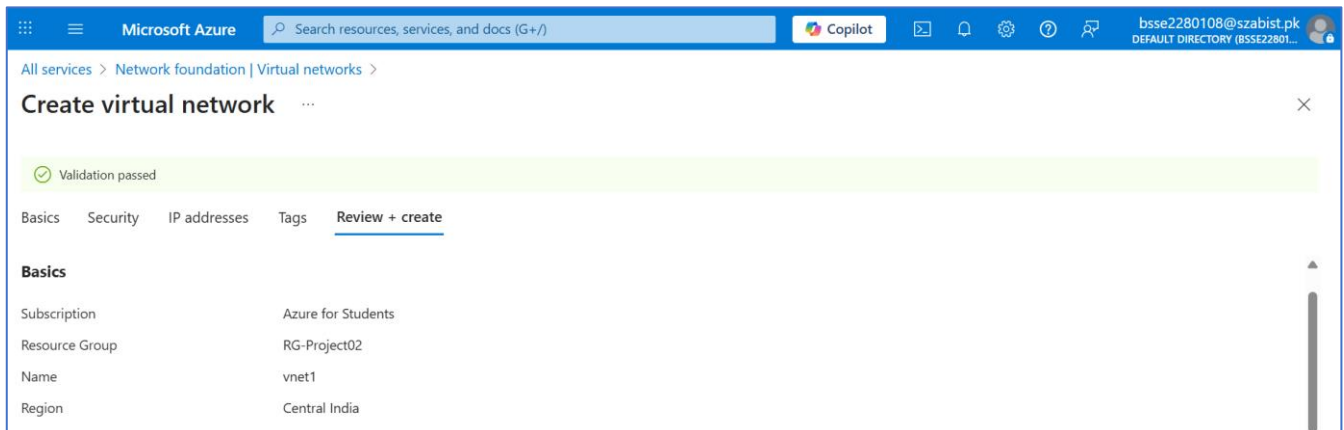
**Bisma Saeed – 2280108**

**BSSE – 7A**

**Lab: 02**

## Task 1: Create a virtual network

1. Sign in to the Azure portal at <https://portal.azure.com>
2. From the All services blade, search for and select Virtual networks, and then click + Add, + Create, + New.
3. On the Basics tab, fill in the following information (leave the defaults for everything else):
4. Click the Review + create button. Ensure the validation passes. Then hit create to deploy the resource.



## Task 2: Create two virtual machines

1. From the All services blade, search for Virtual machines and then click + Add, + Create, + New, from the drop down select Virtual Machine.
2. On the Basics tab, fill in the following information (leave the defaults for everything else):
3. Select the Networking tab. Make sure the virtual machine is placed in the vnet1 virtual network. Review the default settings, but do not make any other changes.
4. Click Review + create. After the Validation passes, click Create. Deployment times can vary but it can generally take between three to six minutes to deploy.

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All services > Compute infrastructure | Virtual machines >

### Create a virtual machine

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

Validation passed

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

**Basics**

Subscription	Azure for Students
Resource group	RG-Project02
Virtual machine name	vm1
Region	Central India
Availability options	No infrastructure redundancy required
Zone options	Self-selected zone
Security type	Trusted launch virtual machines
Enable secure boot	Yes
Enable vTPM	Yes
Integrity monitoring	No

5. Monitor your deployment, but continue on to the next step.
6. Create a second virtual machine by repeating steps 2 to 4 above. Make sure you use a different virtual machine name, that the virtual machine is in the same virtual network, and is using a new public IP address:

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### Create a virtual machine

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

Validation passed

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

**Basics**

Subscription	Azure for Students
Resource group	RG-Project02
Virtual machine name	vm2
Region	Central India
Availability options	No infrastructure redundancy required
Zone options	Self-selected zone
Security type	Trusted launch virtual machines
Enable secure boot	Yes
Enable vTPM	Yes
Integrity monitoring	No
Image	Windows Server 2019 Datacenter - Gen2

7. Wait for both virtual machines to deploy and status says running.

## Task 3: Test the connection

1. From the All resources blade, search for vm1, open its Overview blade, and make sure its Status is Running. You may need to Refresh the page.

2. On the Overview blade, select Connect and then select RDP from the drop down.

Note: The following directions tell you how to connect to your VM from a Windows computer.

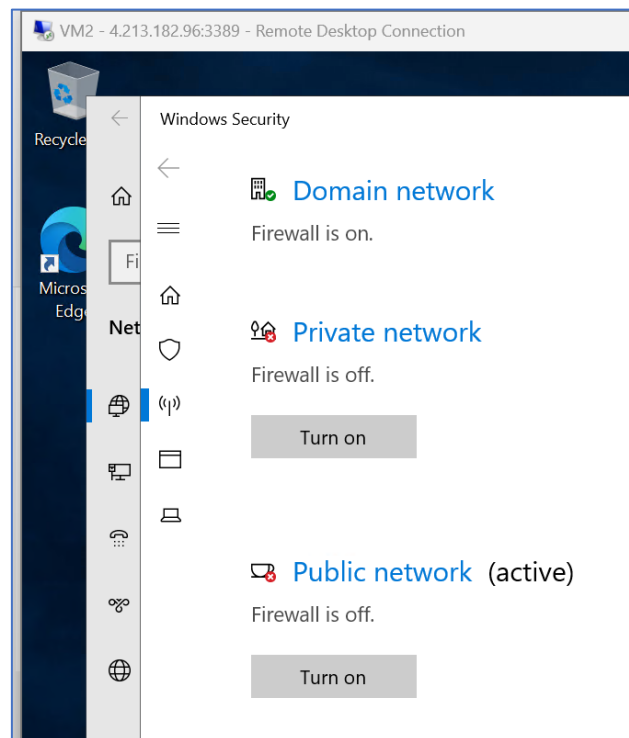
3. On the Connect with RDP blade, keep the default options to connect by IP address over port 3389 and click Download RDP File.

4. Open the downloaded RDP file (located at the bottom left of you VM) and click Connect when prompted.

5. In the Windows Security window, type the username azureuser and password Pa\$\$w0rd1234 and then click OK.

6. You may receive a certificate warning during the sign-in process. Click Yes to create the connection and connect to your deployed VM. You should connect successfully. Close the Windows Server and Dashboard windows that pop up. You should see a Blue Windows background. You are now in your virtual machine.

7. In both newly created virtual machines, connect via RDP and disable both the public and private firewall by opening the Start menu > Settings > Network and Internet > Locate Windows Firewall.



8. Open up PowerShell on the virtual machine by clicking the Start button, and in Search type PowerShell, right click on Windows PowerShell to Run as administrator

9. In Powershell, try to ping vm2 by typing:

Code: ping vm2

9. You should be successful. You have pinged VM2 from VM1.

```
vm1 - 4.213.56.178:3389 - Remote Desktop Connection
Administrator: Windows PowerShell
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

PS C:\Users\azureuser>
PS C:\Users\azureuser> ping vm2

Pinging vm2.44i43oxmw5epgvbyvxs3gu2e.rx.internal.cloudapp.net [10.0.0.5] with 32 bytes of data:
Reply from 10.0.0.5: bytes=32 time=1ms TTL=128
Reply from 10.0.0.5: bytes=32 time=1ms TTL=128
Reply from 10.0.0.5: bytes=32 time=1ms TTL=128
Reply from 10.0.0.5: bytes=32 time=1ms TTL=128

Ping statistics for 10.0.0.5:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 1ms, Average = 1ms
PS C:\Users\azureuser>
```

```
VM2 - 4.213.182.96:3389 - Remote Desktop Connection
Administrator: Windows PowerShell
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

PS C:\Users\azureuser> ping vm1

Pinging vm1.44i43oxmw5epgvbyvxs3gu2e.rx.internal.cloudapp.net [10.0.0.4] with 32 bytes of data:
Reply from 10.0.0.4: bytes=32 time<1ms TTL=128
Reply from 10.0.0.4: bytes=32 time<1ms TTL=128
Reply from 10.0.0.4: bytes=32 time<1ms TTL=128
Reply from 10.0.0.4: bytes=32 time=1ms TTL=128

Ping statistics for 10.0.0.4:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms
PS C:\Users\azureuser>
```

**Congratulations! You have configured and deployed two virtual machines in a virtual network, and then you were able to connect them.**