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BSSE 7A

Lab 2

02 - Create a virtual network (20 min)

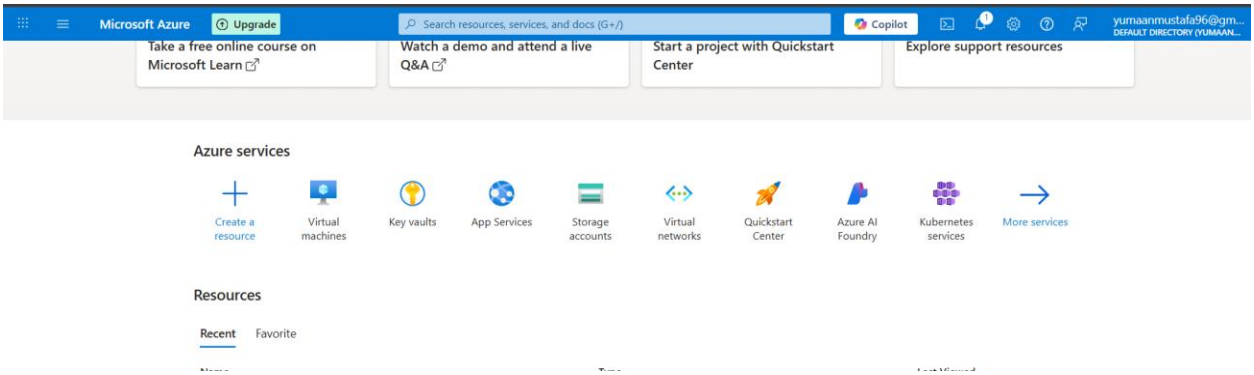
In this walkthrough, we will create a virtual network, deploy two virtual machines onto that virtual network and then configure them to allow one virtual machine to ping the other within that virtual network.

Task 1: Create a virtual network

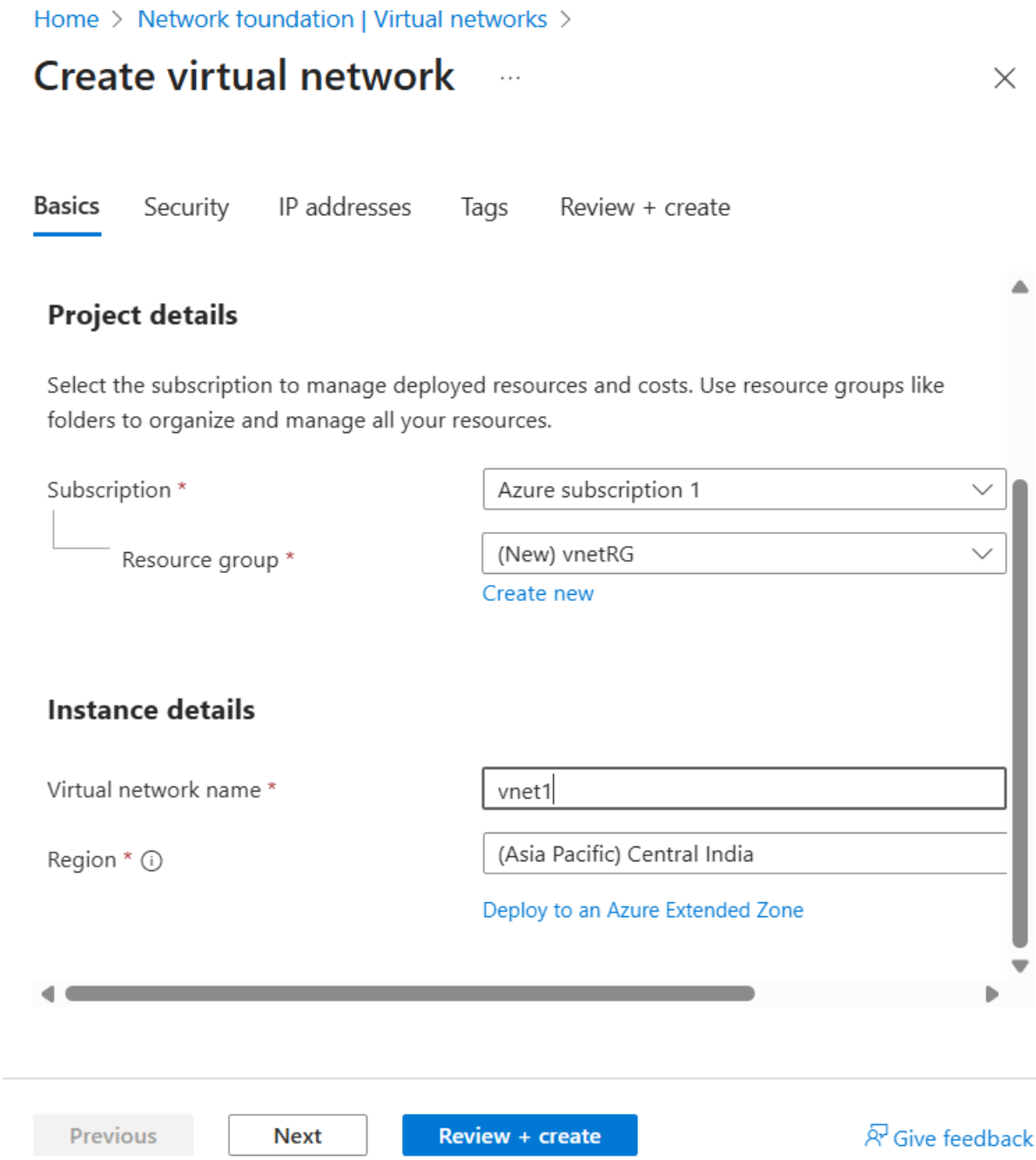
In this task, we will create a virtual network.

Note: Before beginning the lab, disable both the public and private firewall in your virtual machine by opening the Start menu > Settings > Network and Internet > Locate Windows Firewall

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): Setting Subscription Value Leave default provided Resource Group Create new resource group Name vnet1 Region (US) East US

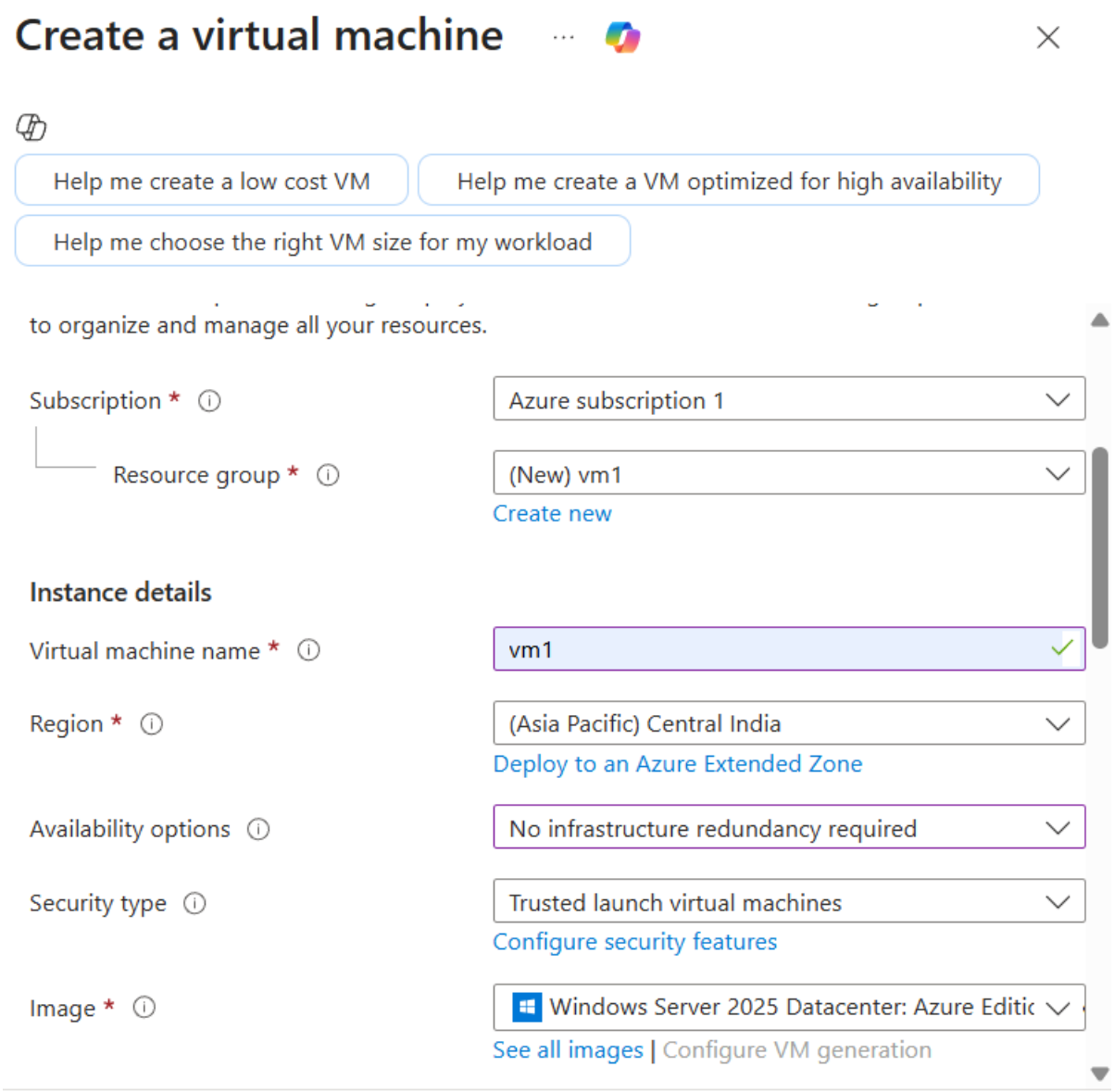
4. Click the Review + create button. Ensure the validation passes. Then hit create to deploy the resource.

Task 2: Create two virtual machines

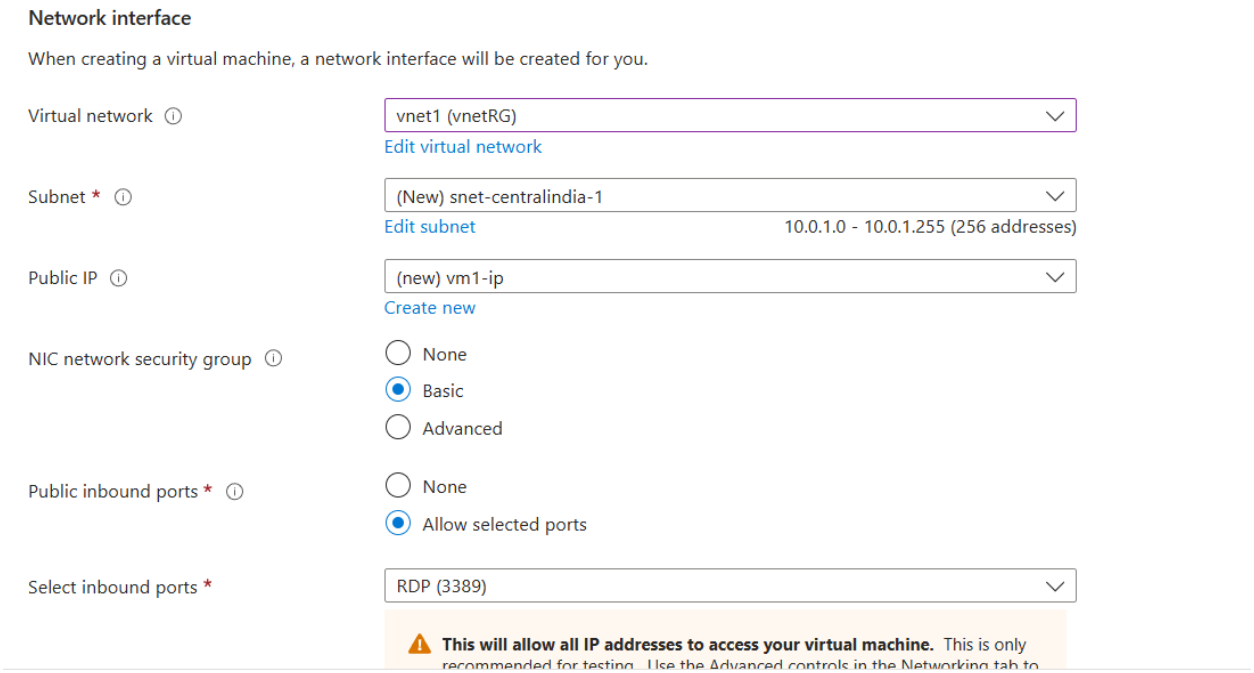
In this task, we will create two virtual machines in the virtual network.

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): Setting Subscription Resource group Value Use default supplied Select default in drop down Virtual machine name vm1 Region (US) East US Image Username Password Public inbound ports Windows Server 2019 Datacenter - Gen2 azureuser Pa$$w0rd1234 Select Allow selected ports Selected inbound ports RDP (3389)

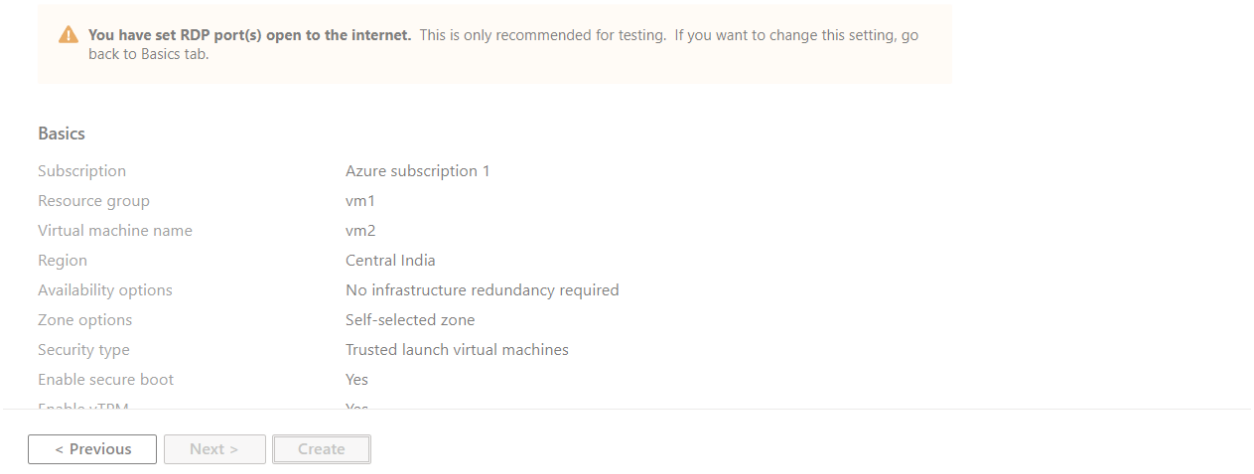


3. Select the Networking tab. Make sure the virtual machine is placed in the vnet1 virtual network. Review the default settings, but do not make any other changes.
4. Click Review + create. After the Validation passes, click Create. Deployment times can vary but it can generally take between three to six minutes to deploy.



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: Setting Resource group Value select default in dropdown (same as Task1-3 & Task2-2) Virtual machine name vm2 Virtual network vnet1 Public IP vm2-ip 7. Wait for both virtual machines to deploy and status says running.



Task 3: Test the connection

In this task, we will try to test whether the virtual machines can communicate (ping) each other. If not we will install a rule to allow an ICMP connection. Usually ICMP connections are automatically blocked.

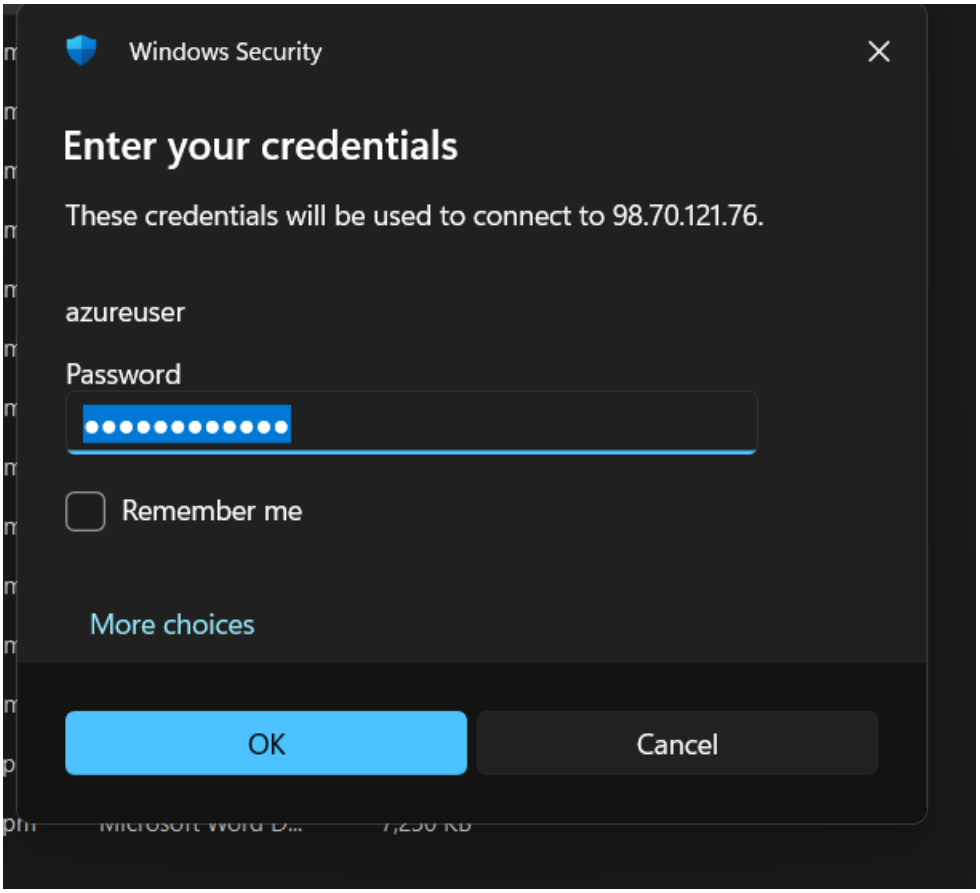
1. From the All resources blade, search for vm1, open its Overview blade, and make sure its Status is Running. You may need to Refresh the page.

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.

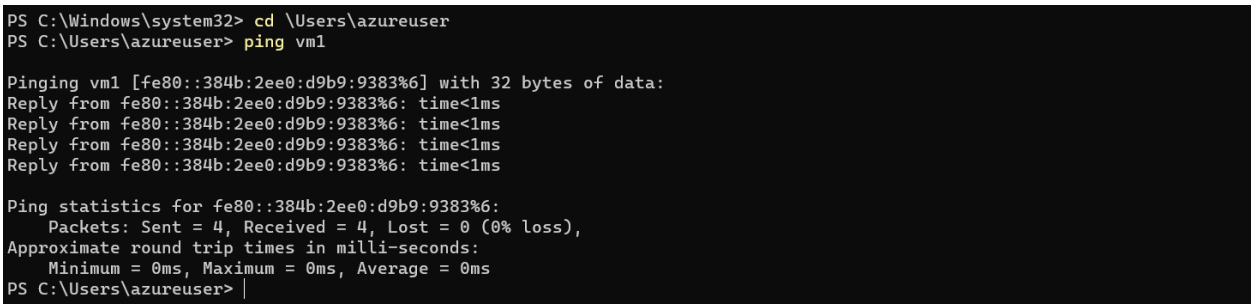


6. You may receive a certificate warning during the sign-in process. Click Yes to create the connection and connect to your deployed VM. You should connect successfully. Close the Windows Server and Dashboard windows that pop up. You should see a Blue Windows background. You are now in your virtual machine.

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



10. You should be successful. You have pinged VM2 from VM1. Congratulations! You have configured and deployed two virtual machines in a virtual network, and then you were able to connect them. Note: To avoid additional costs, you can optionally remove this resource group. Search for resource groups, click