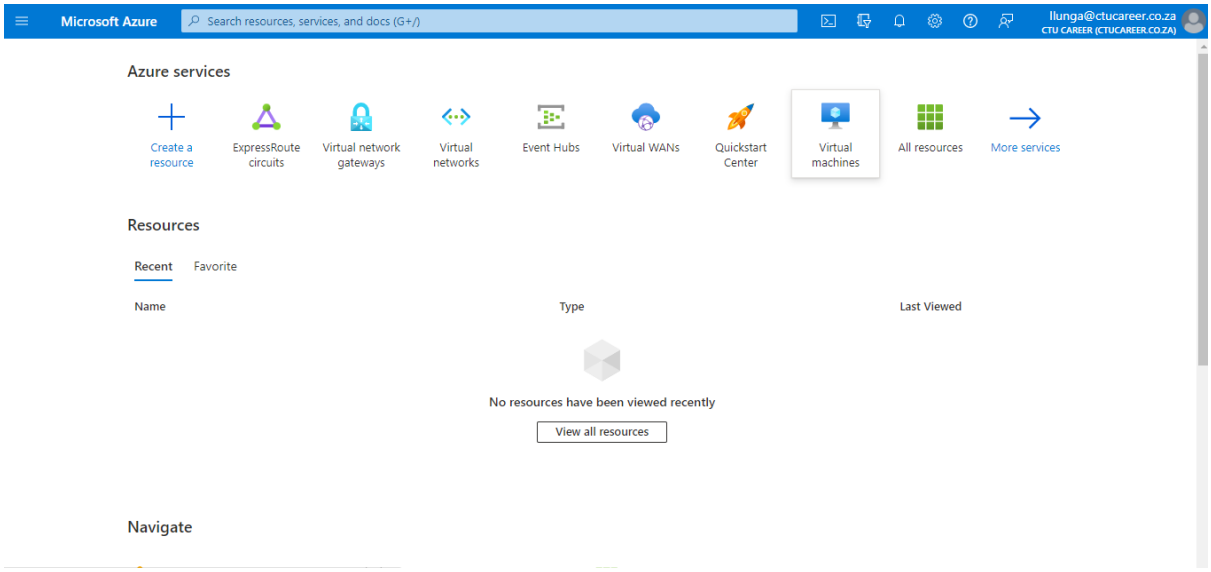
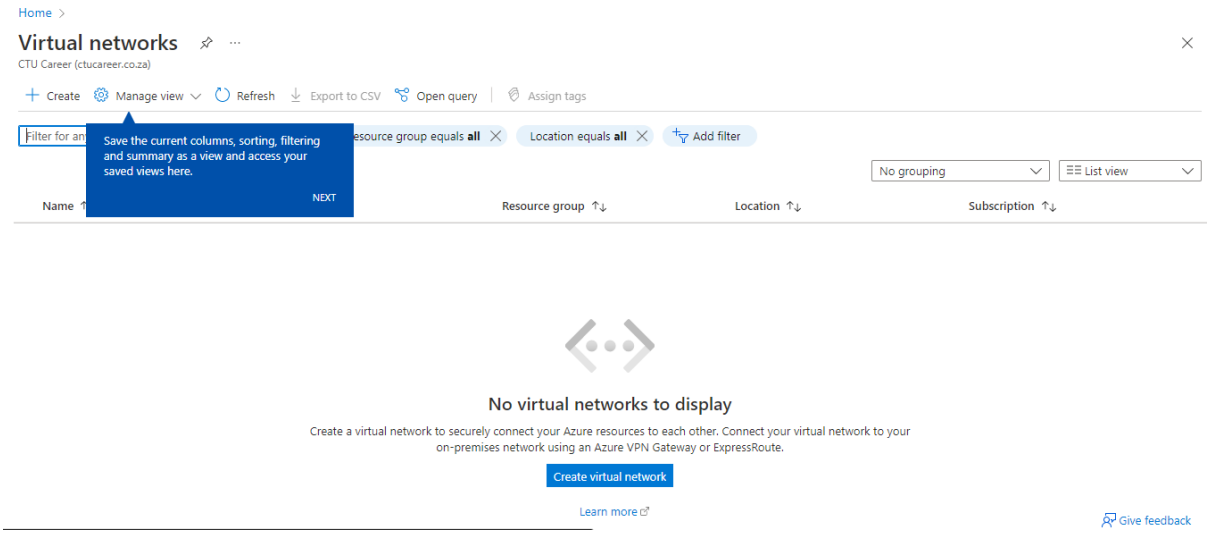
M04-Unit 4 Create and configure an Azure load balancer

Task 1: Create the virtual network

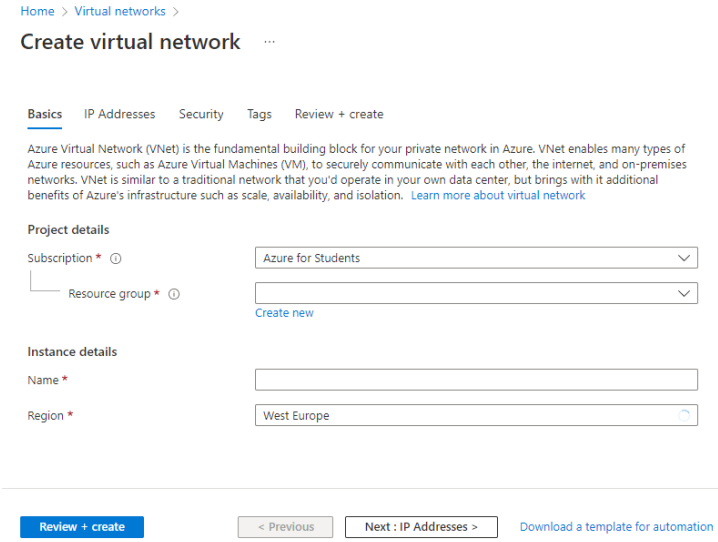
1. Log in to the Azure portal.



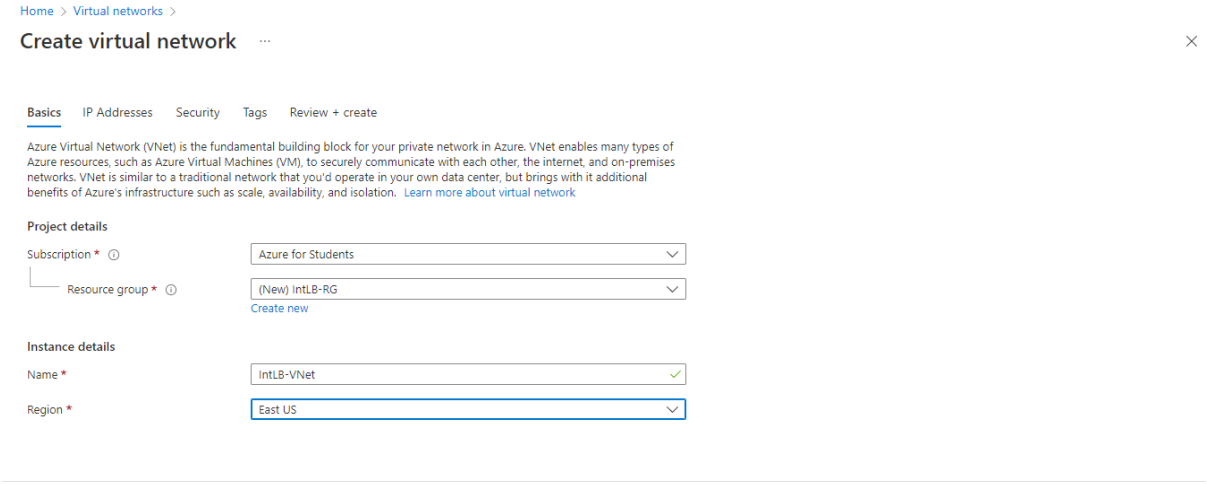
2.On the Azure portal home page, navigate to the Global Search bar and search Virtual Networks and select virtual networks under services.



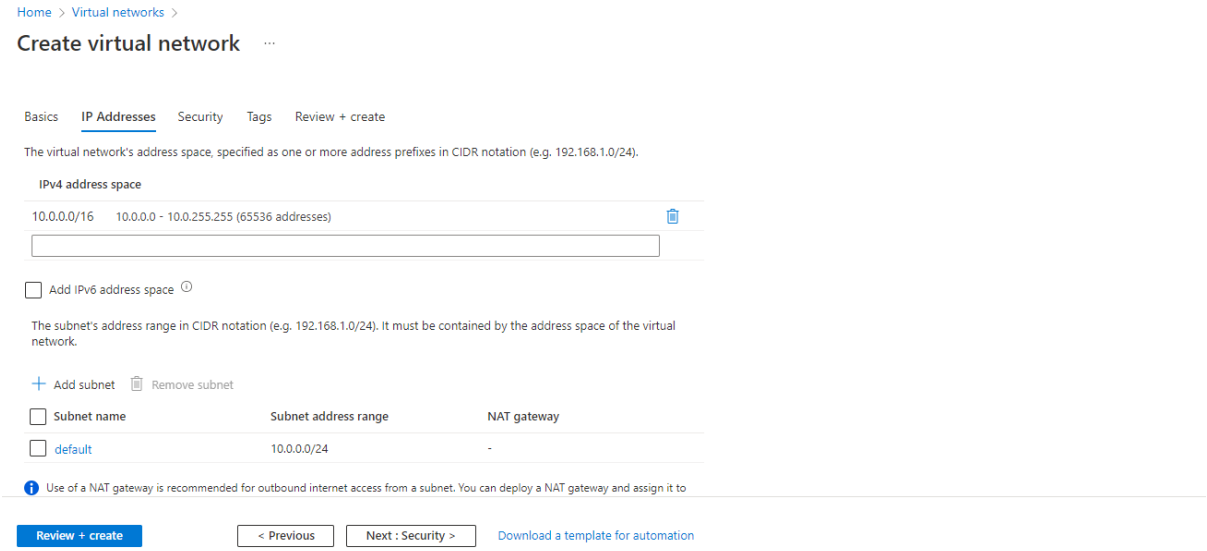
3. Select Create on the Virtual networks page.



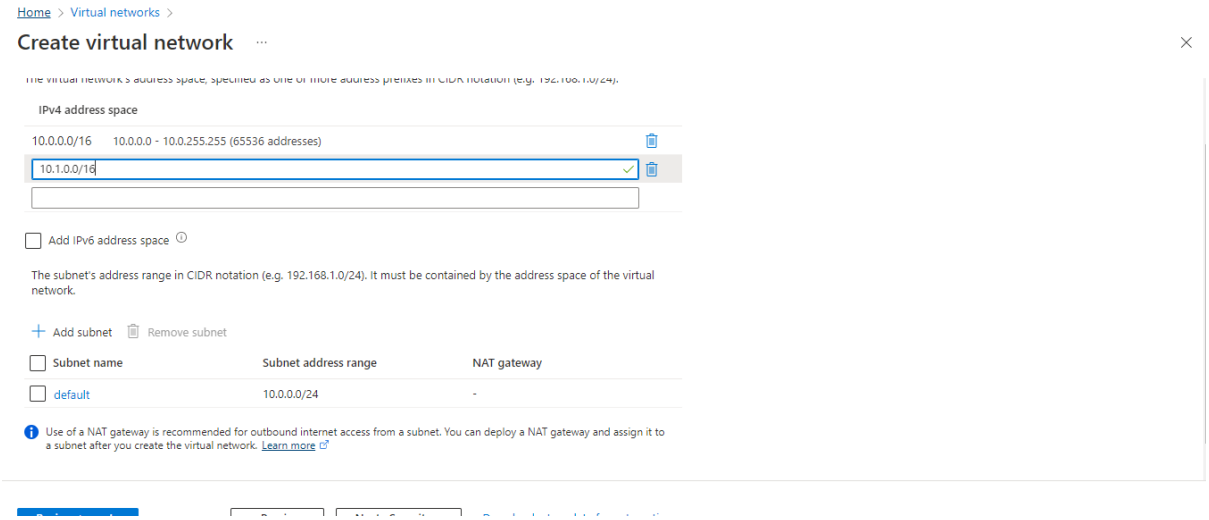
4. On the Basics tab, use the information in the table below to create the virtual network.



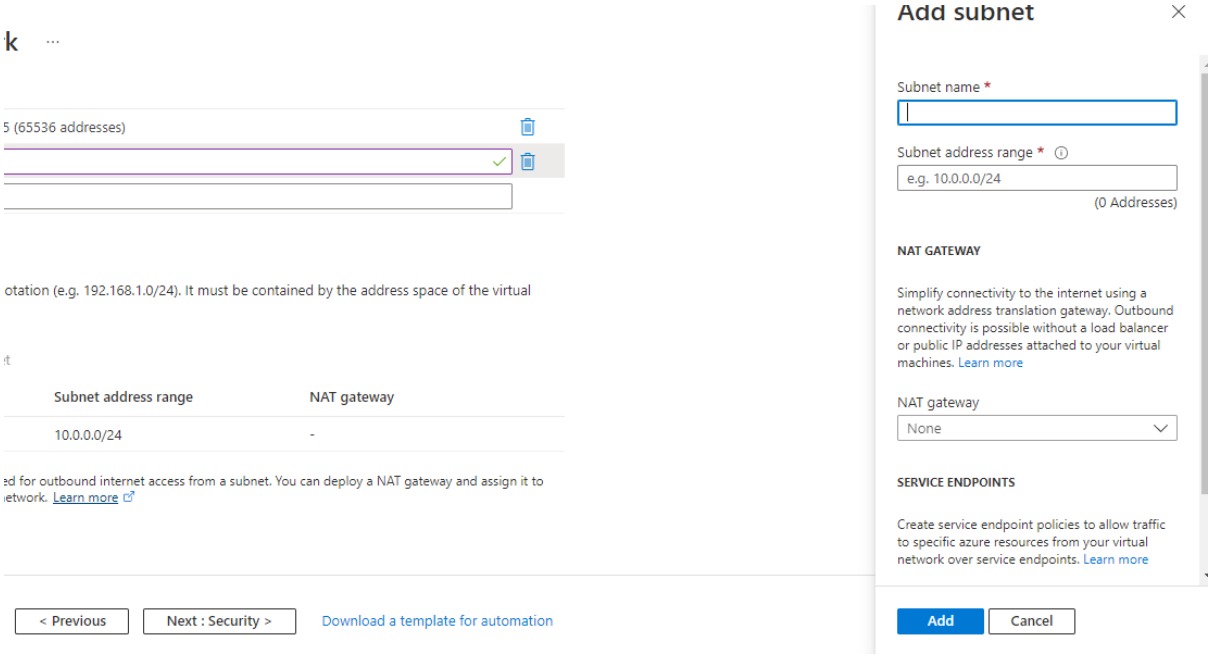
5. Click Next : IP Addresses.



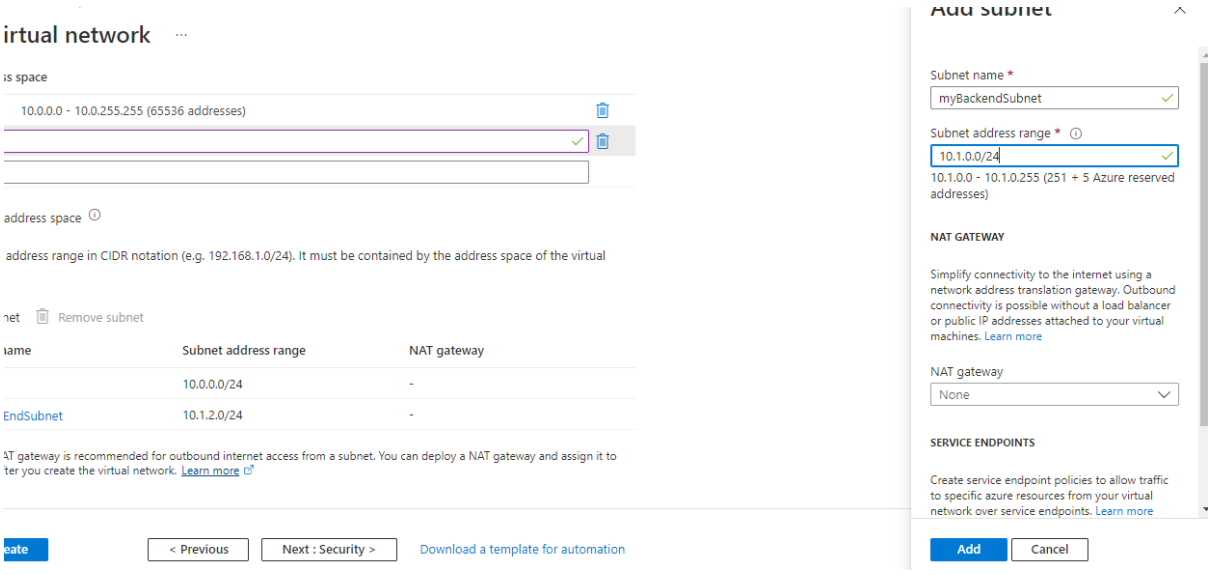
6. On the IP Addresses tab, in the IPv4 address space box, remove the default and type 10.1.0.0/16.



7. On the IP Addresses tab, select + Add subnet.

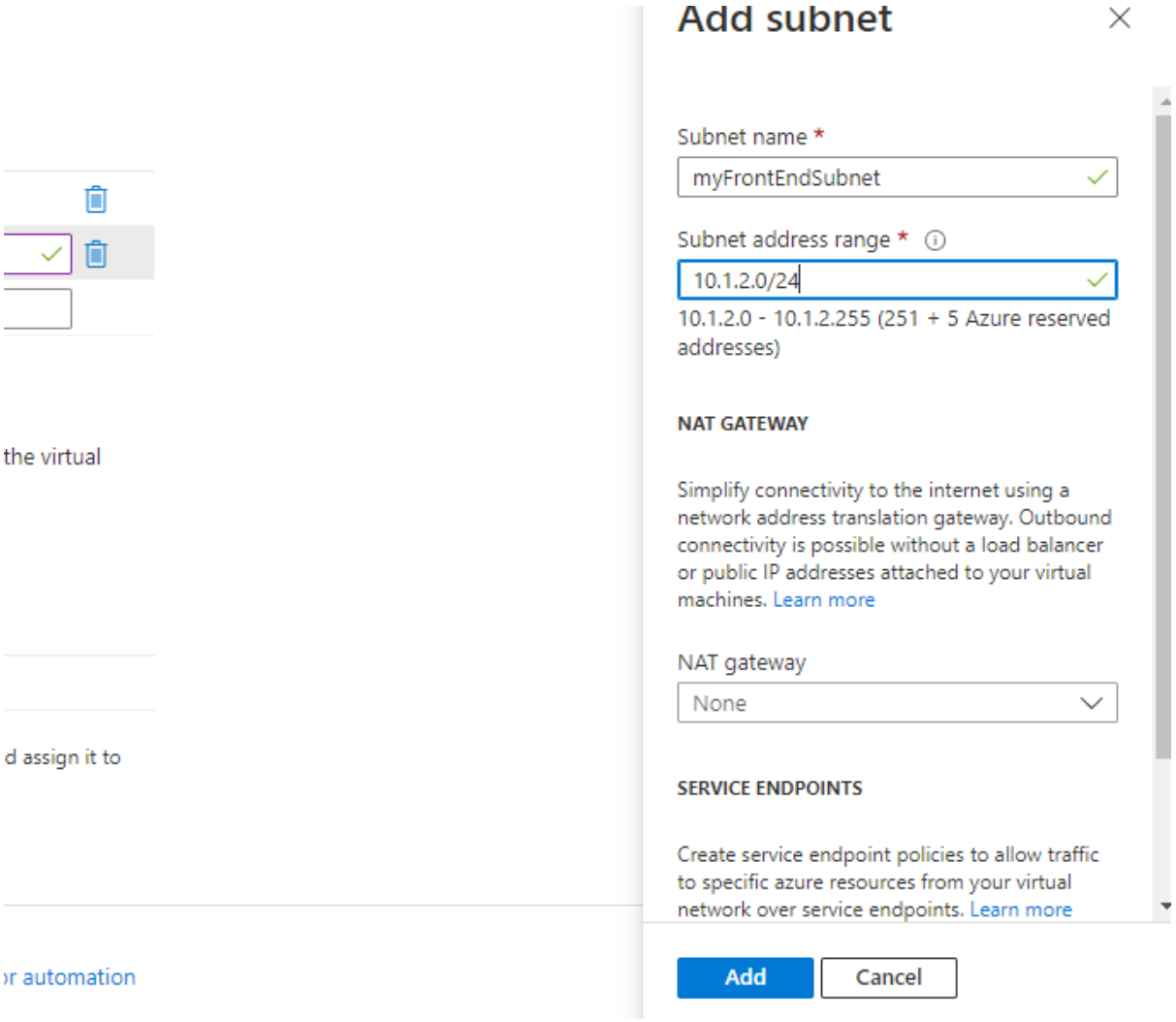


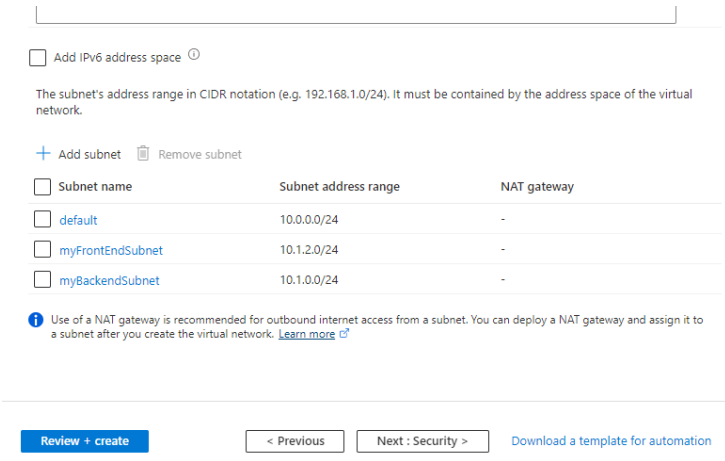
8. In the Add subnet pane, provide a subnet name of myBackendSubnet, and a subnet address range of 10.1.0.0/24.



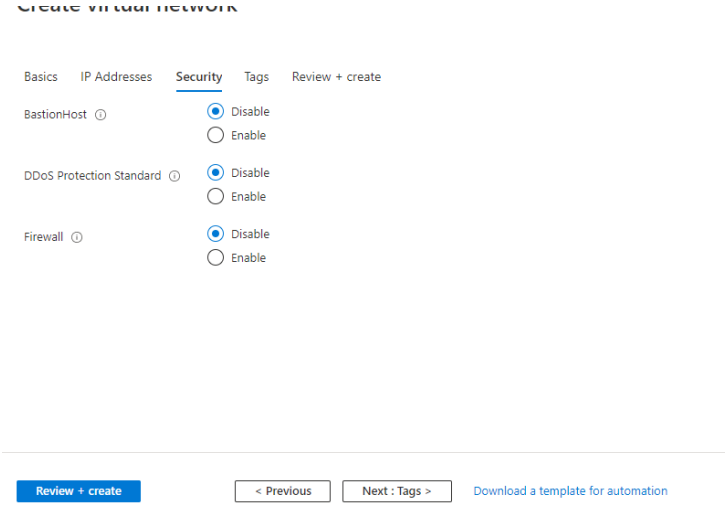
9. Click Add.

10. Click Add subnet, provide a subnet name of myFrontEndSubnet, and a subnet address range of 10.1.2.0/24. Click Add

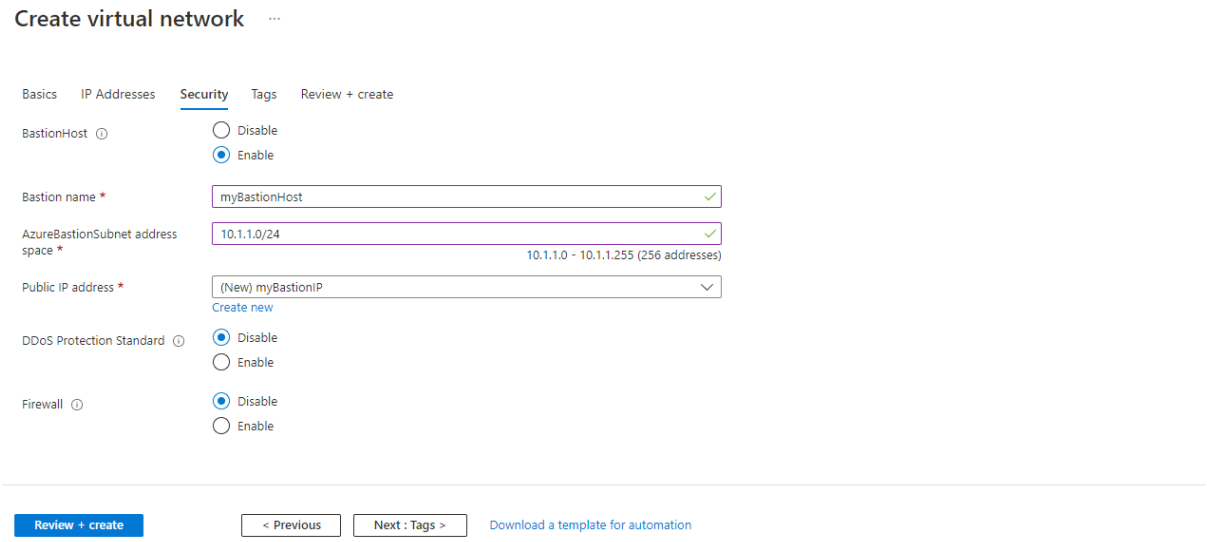




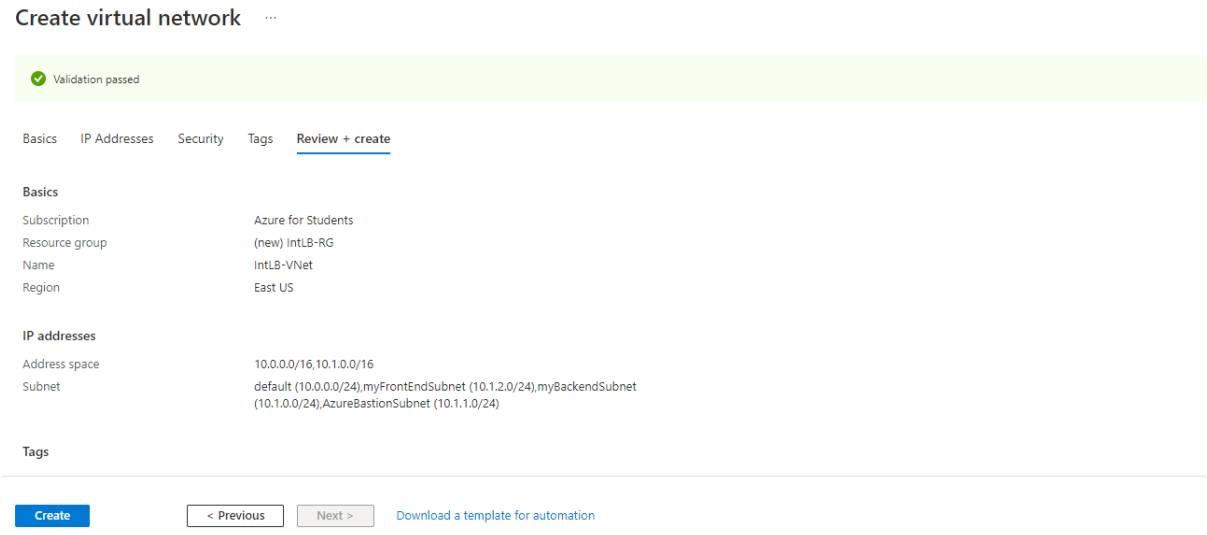
11. Click Next : Security.



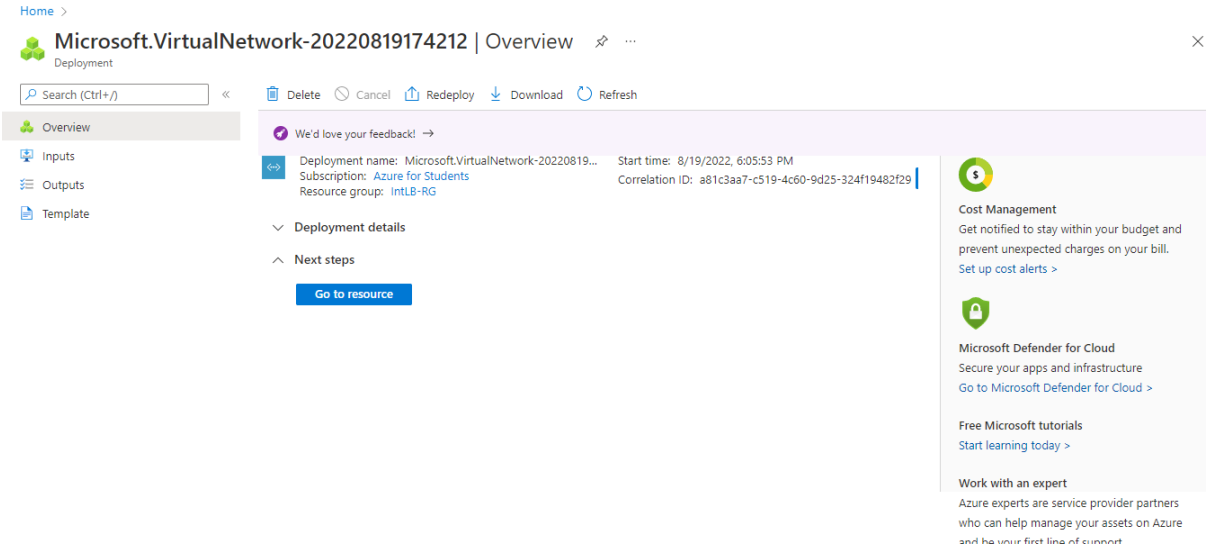
12. Under BastionHost select Enable, then enter the information from the table below.



13. Click Review + create.



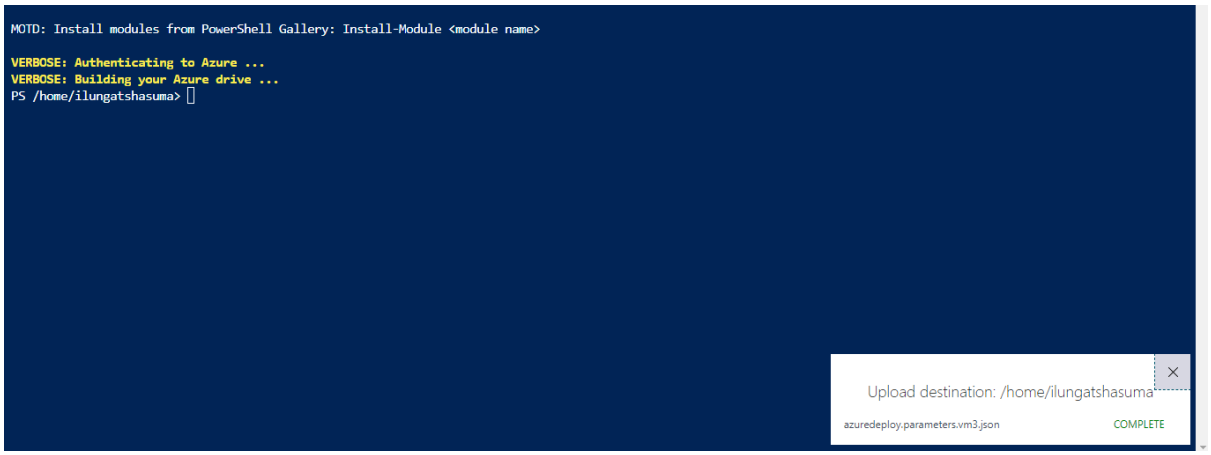
14. Click Create.



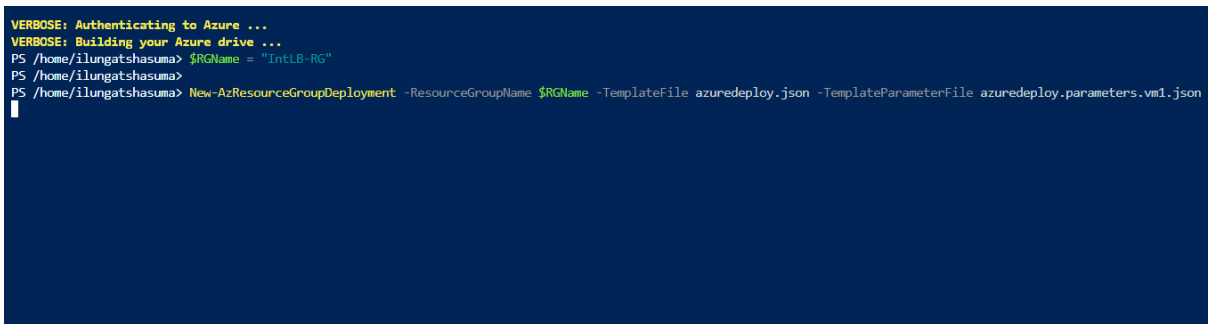
Task 2: Create backend servers

1. In the Azure portal, open the PowerShell session within the Cloud Shell pane.

2. In the toolbar of the Cloud Shell pane, click the Upload/Download files icon, in the drop-down menu, click Upload and upload the following files azuredeploy.json, azuredeploy.parameters.vm1.json, azuredeploy.parameters.vm2.json and azuredeploy.parameters.vm3.json into the Cloud Shell home directory one by one.

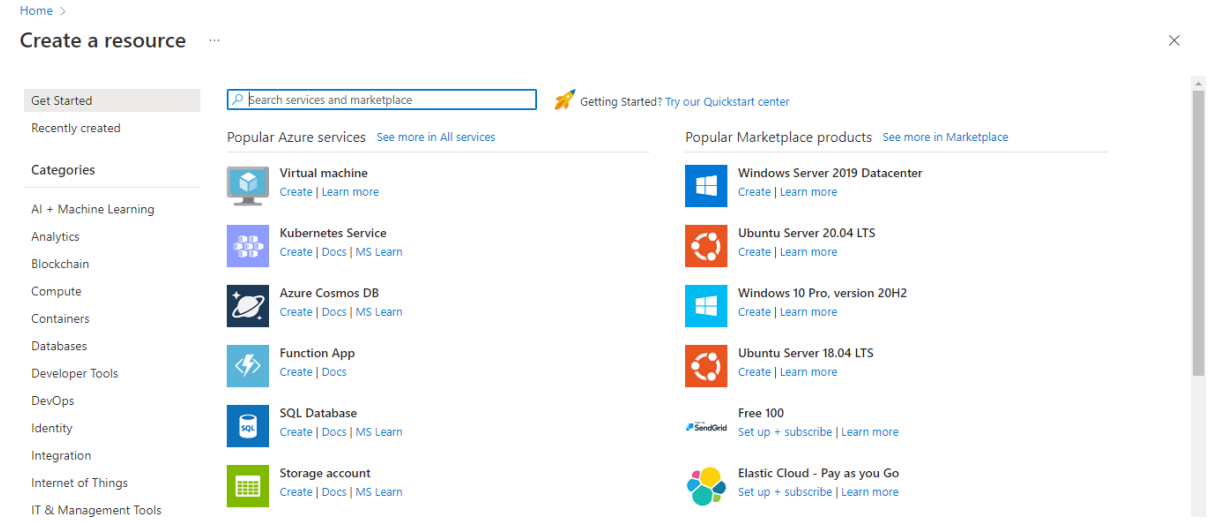


3. Deploy the following ARM templates to create the VMs needed for this exercise:

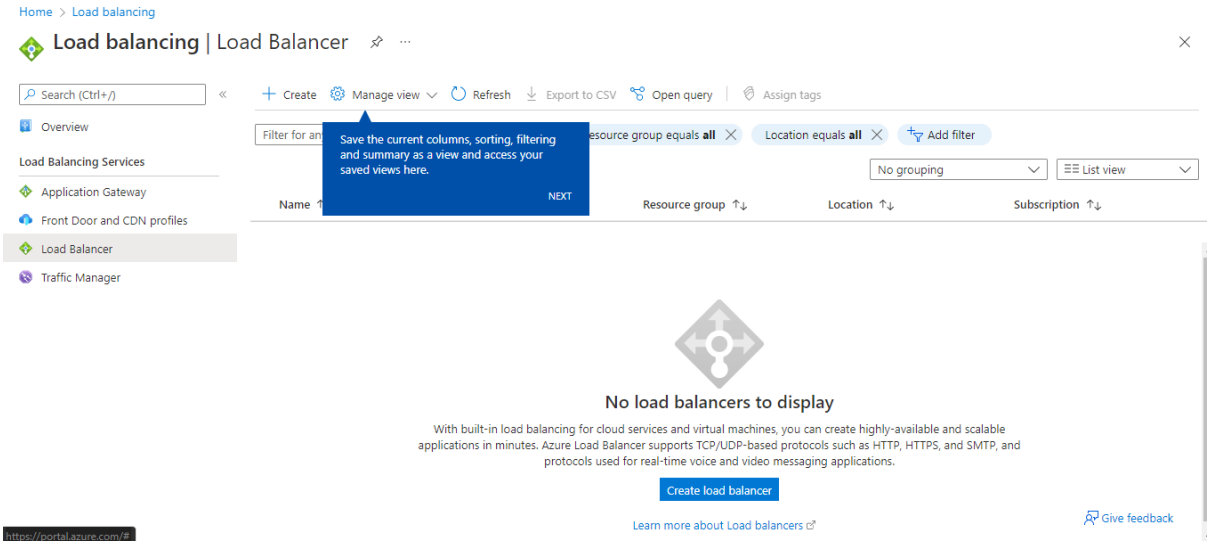


Task 3: Create the load balancer

1. On the Azure portal home page, click Create a resource.

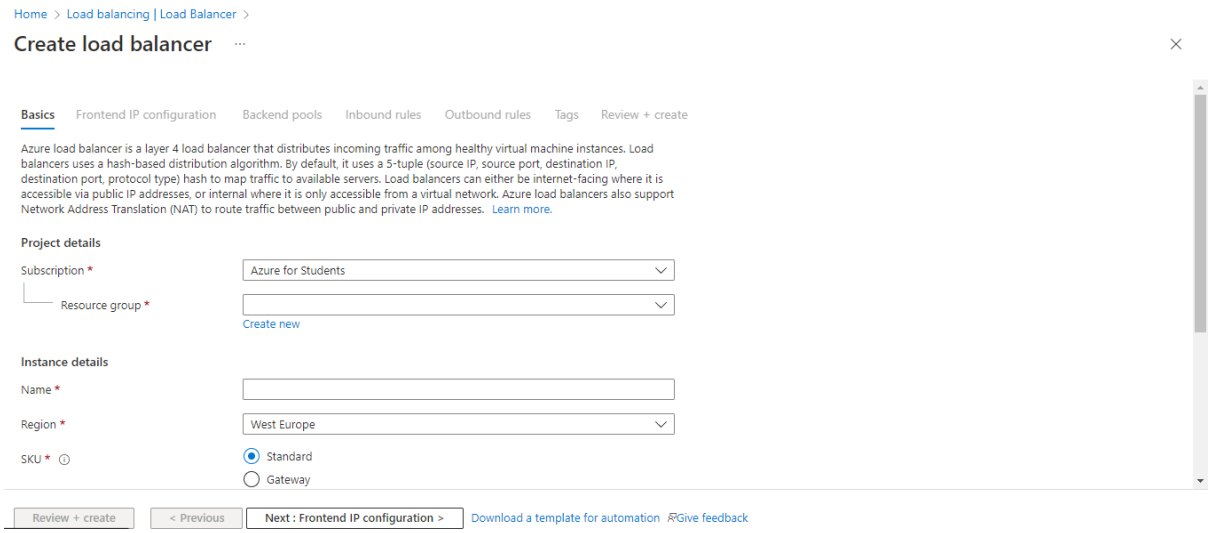


2. In the search box at the top of the page, type Load Balancer, then press Enter (Note: do not select one from the list).

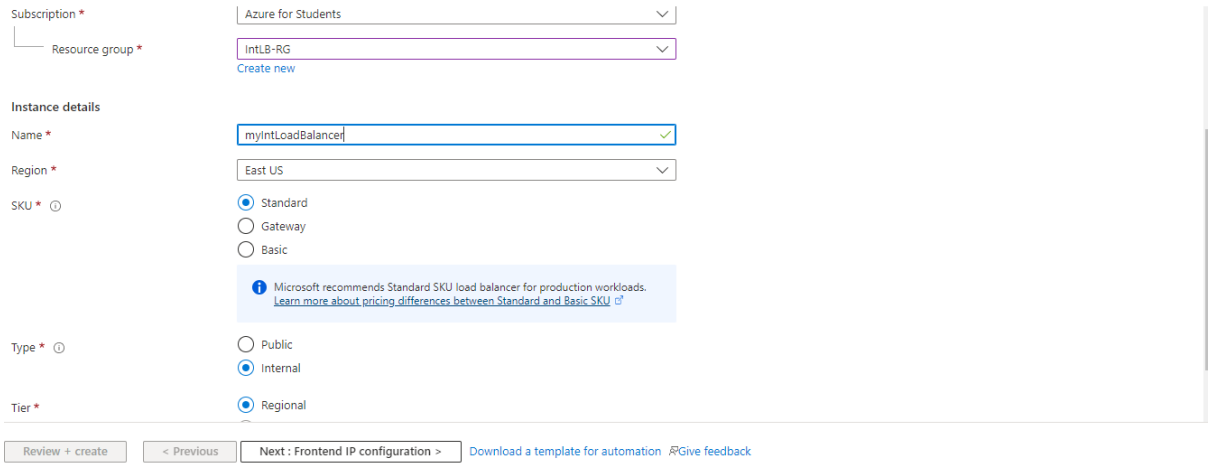


3. On the results page, locate and select Load Balancer (the one that says 'Microsoft' and 'Azure Service' under the name).

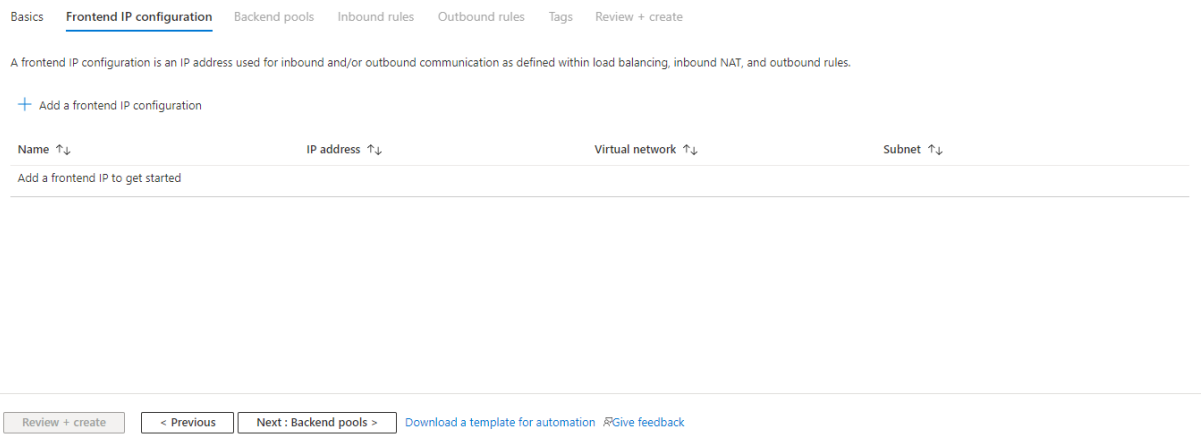
4.Click Create.



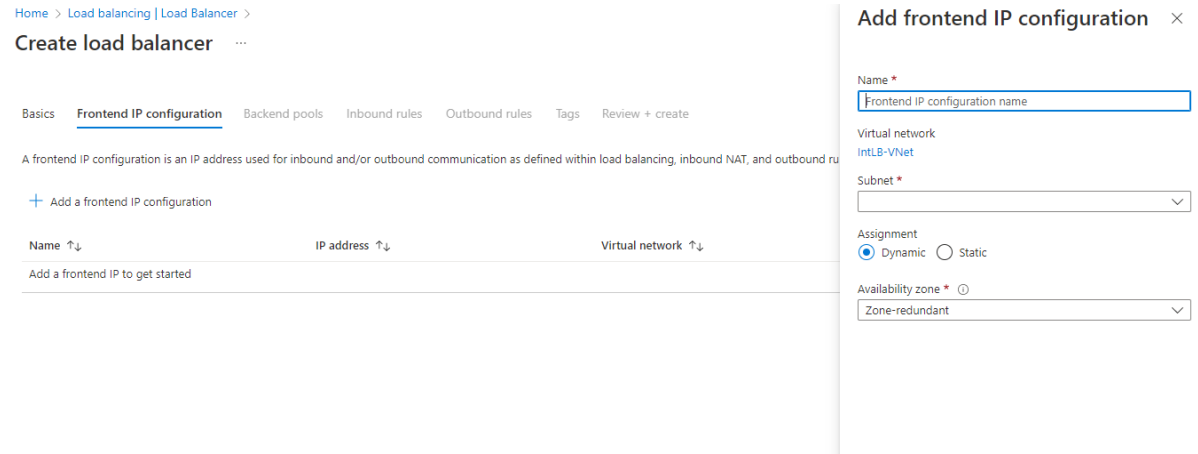
5.On the Basics tab, use the information in the table below to create the load balancer.



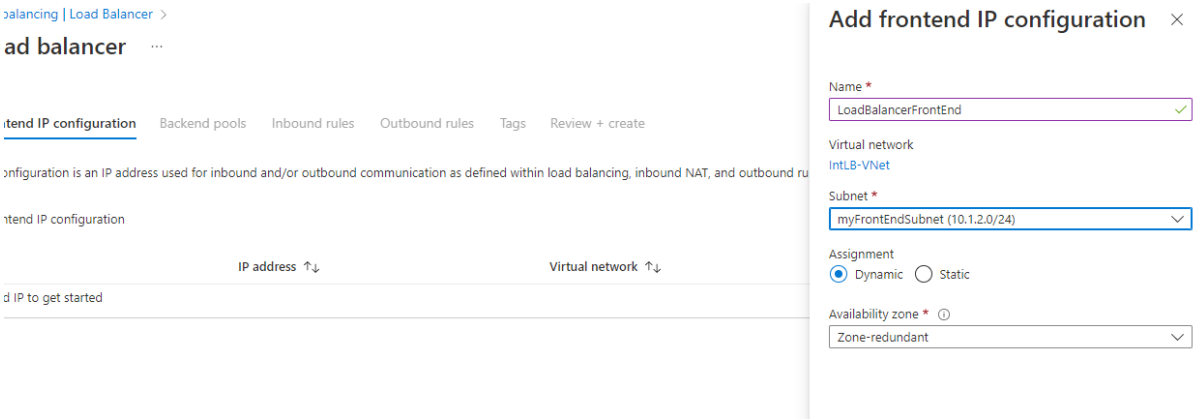
6. Click Next: Frontend IP configurations.



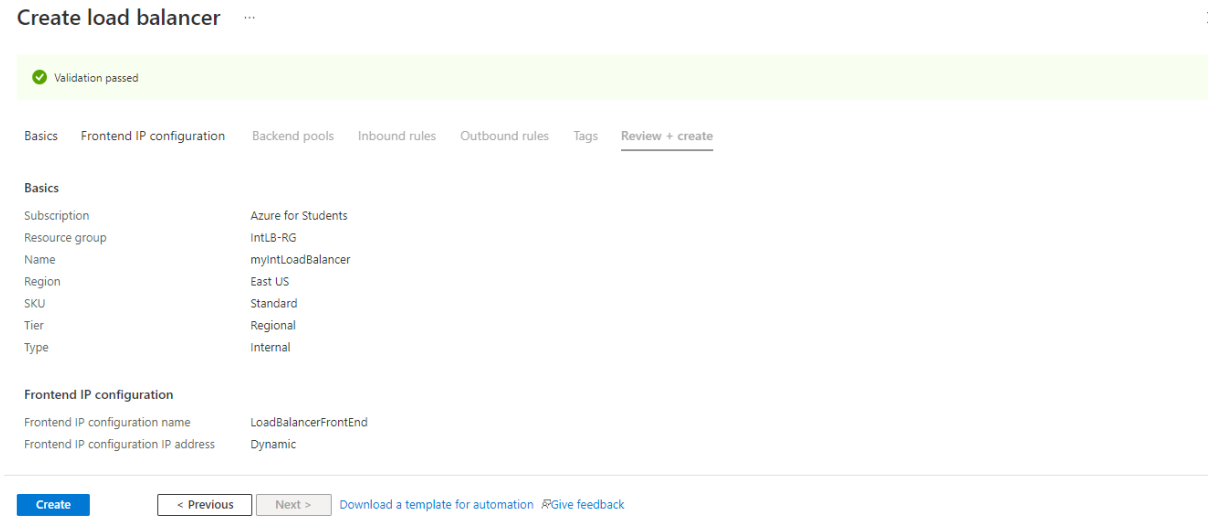
7. Click Add a frontend IP



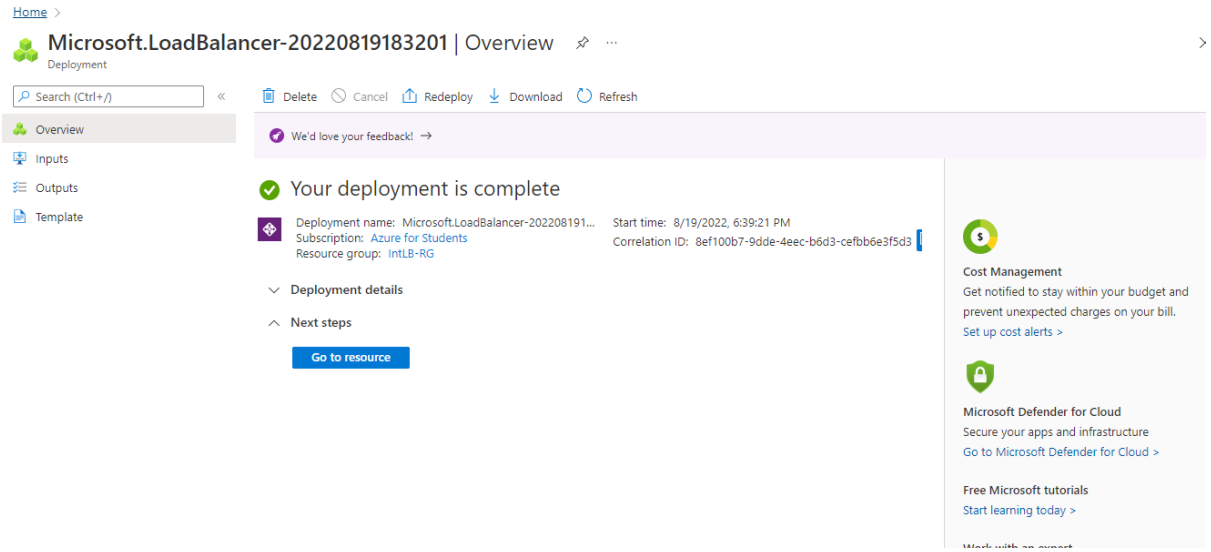
8. On the Add frontend IP address blade, enter the information from the table below and select Add.



9. Click Review + create.

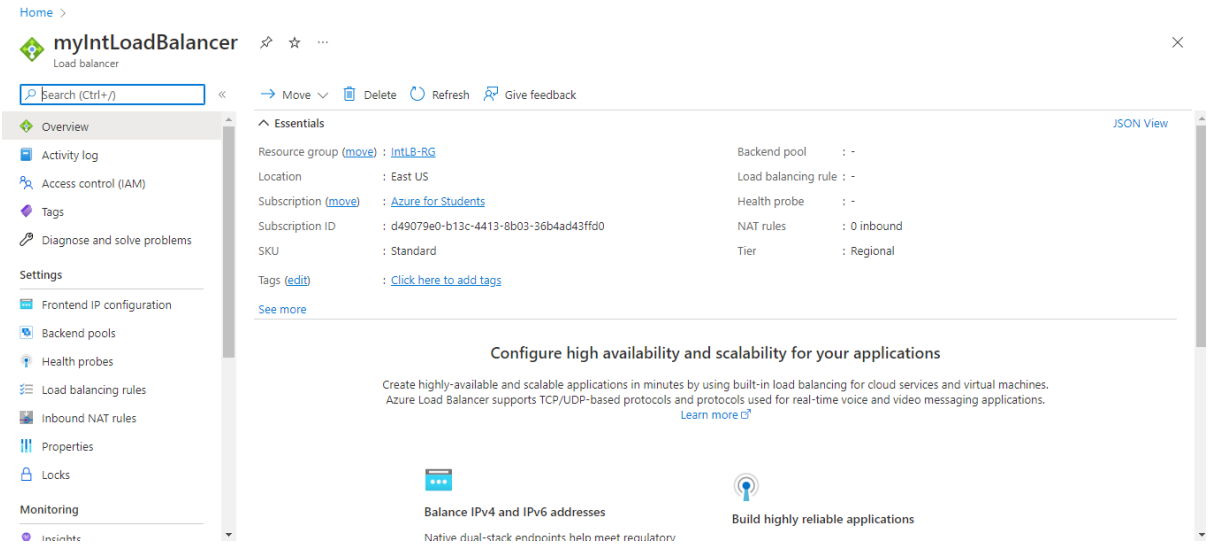


10. Click Create.

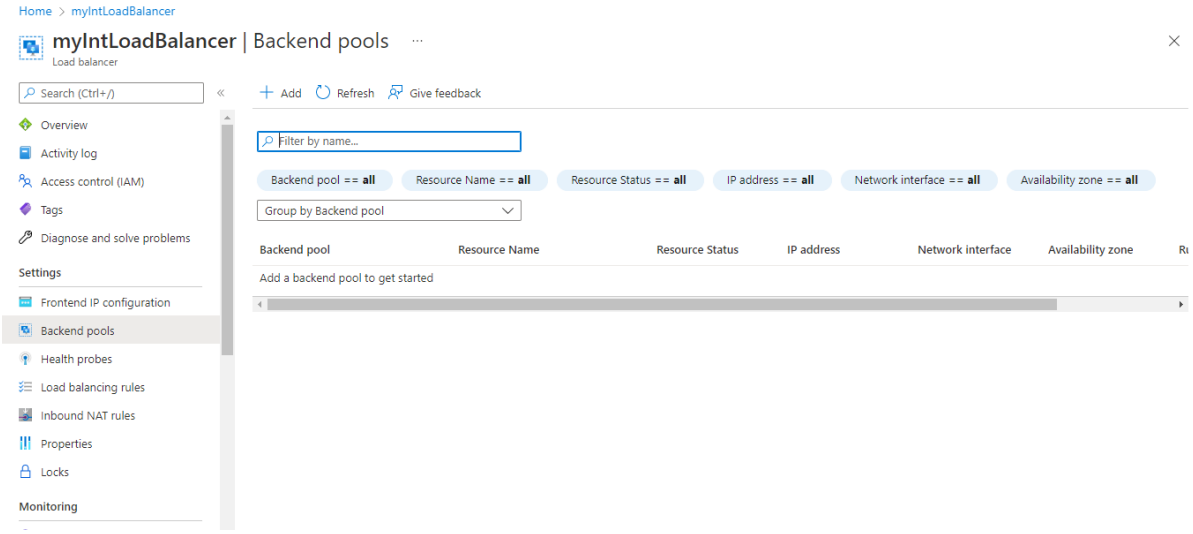


Task 4: Create load balancer resources

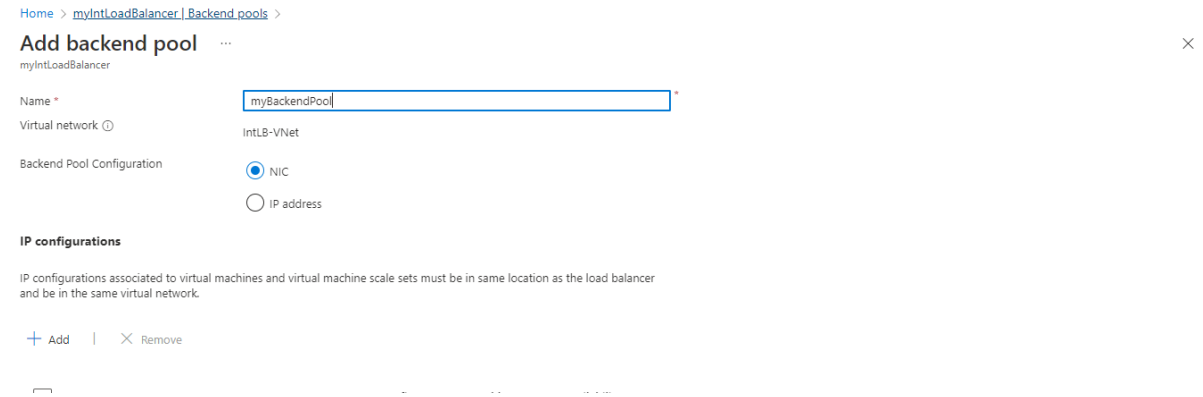
1. On the Azure portal home page, click All resources, then click on myIntLoadBalancer from the resources list.



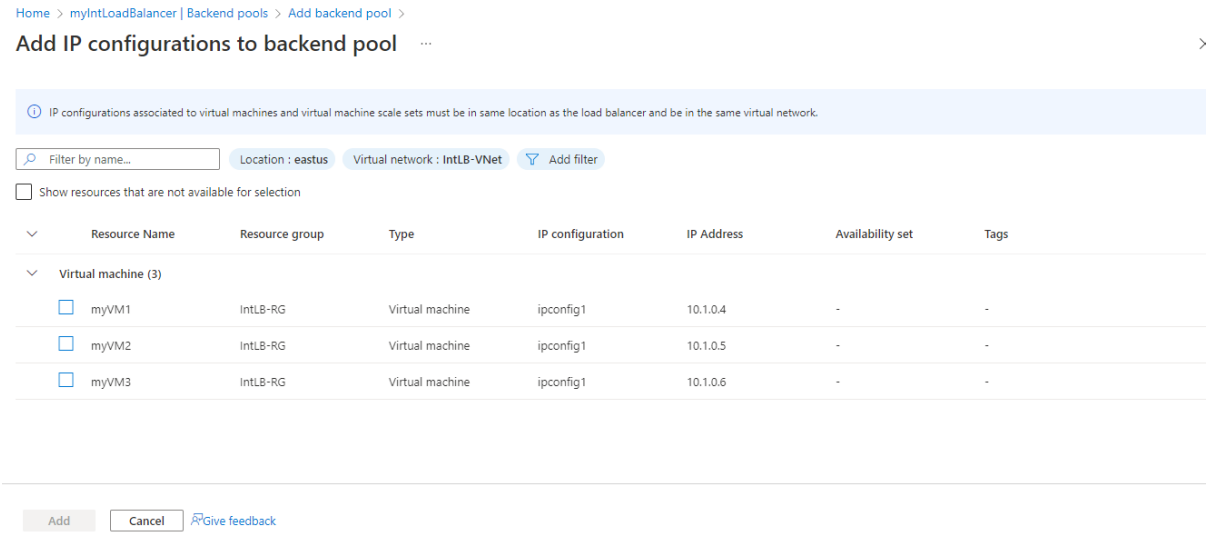
2. Under Settings, select Backend pools, and then click Add.



3. On the Add backend pool page, enter the information from the table below.



4. Under Virtual machines, click Add.



5. Select the checkboxes for all 3 VMs (myVM1, myVM2, and myVM3), then click Add.

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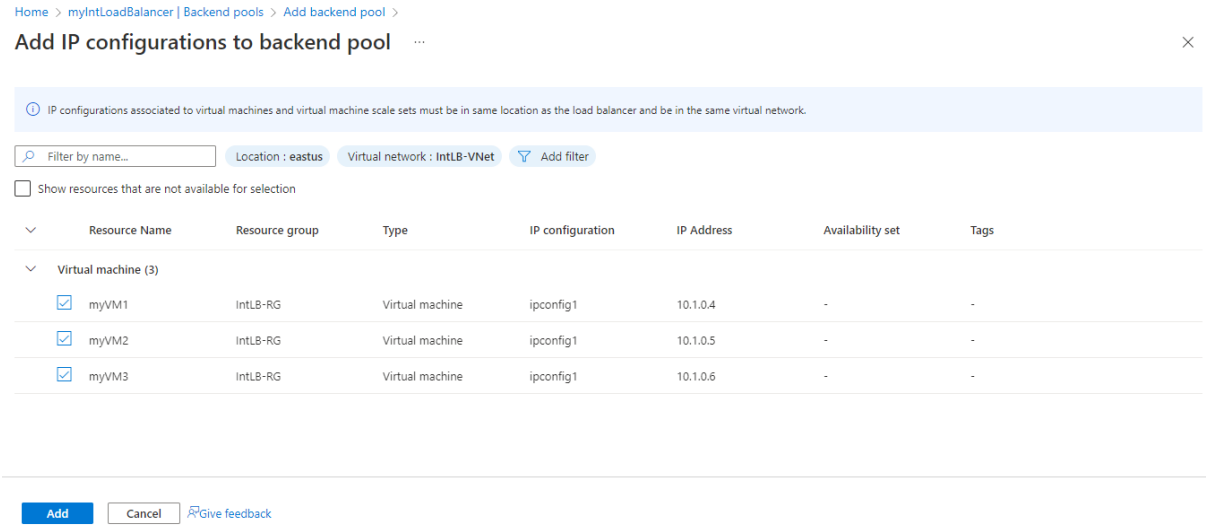
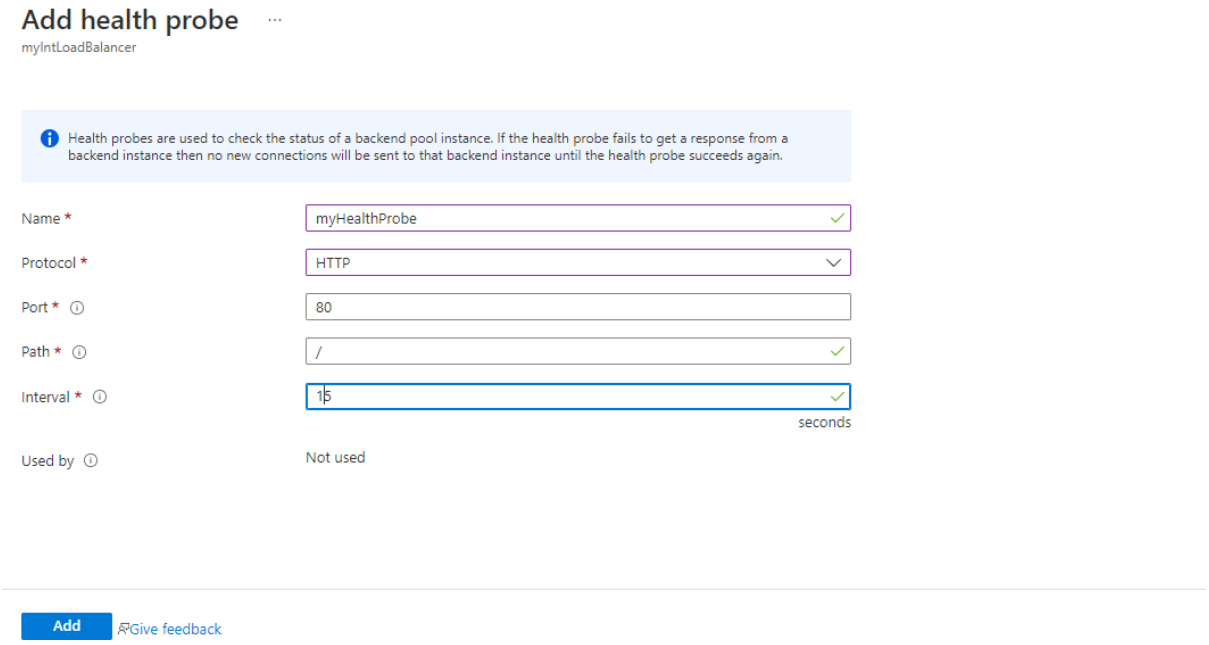


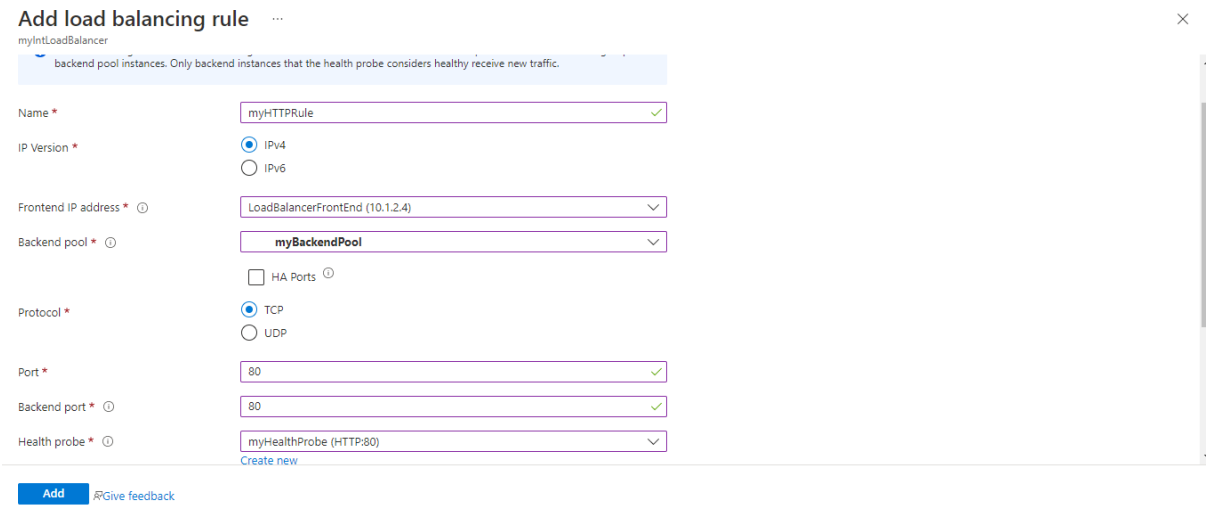
Create a health probe

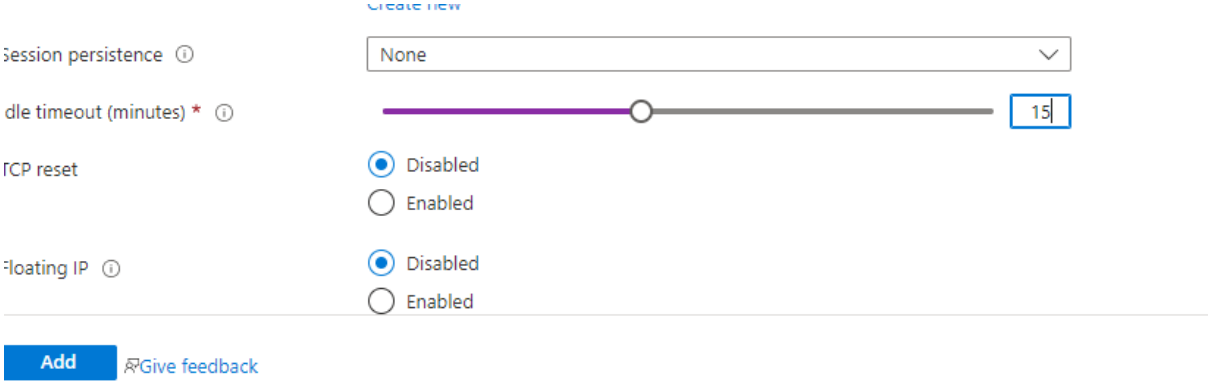
1. Under Settings, click Health probes, then click Add. +2. On the Add health probe page, enter the information from the table below.



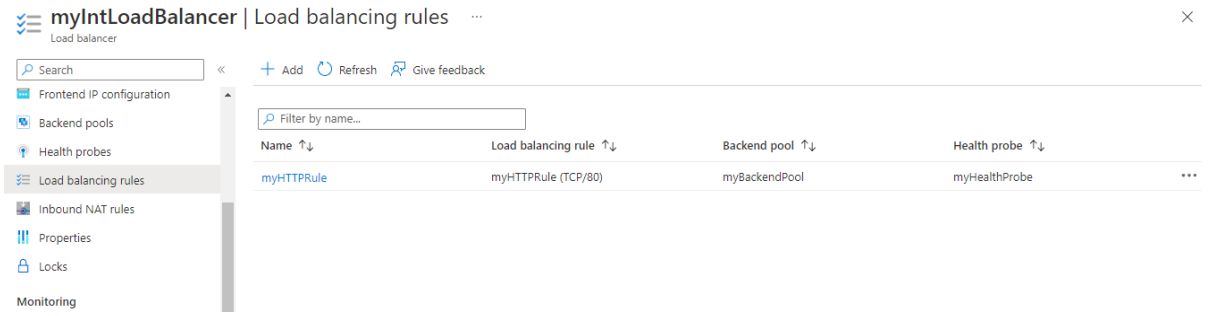
Create a load balancer rule

1.From the Backend pools page of your load balancer, under Settings, click Load balancing rules, then click Add. 2. On the Add load balancing rule page, enter the information from the table below.





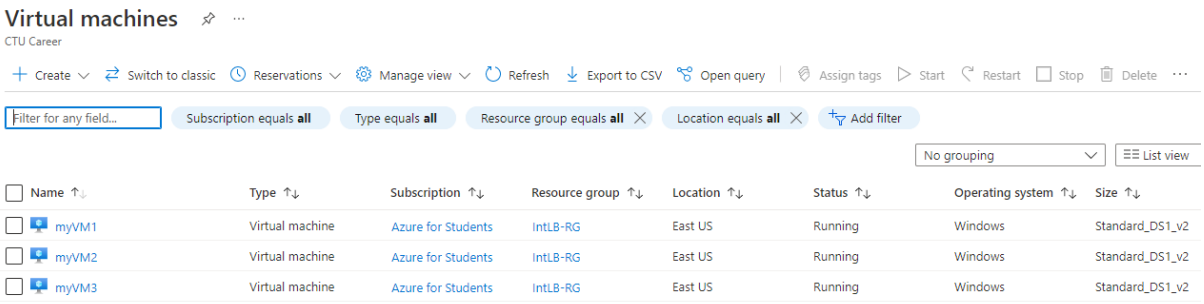
3.Click Add



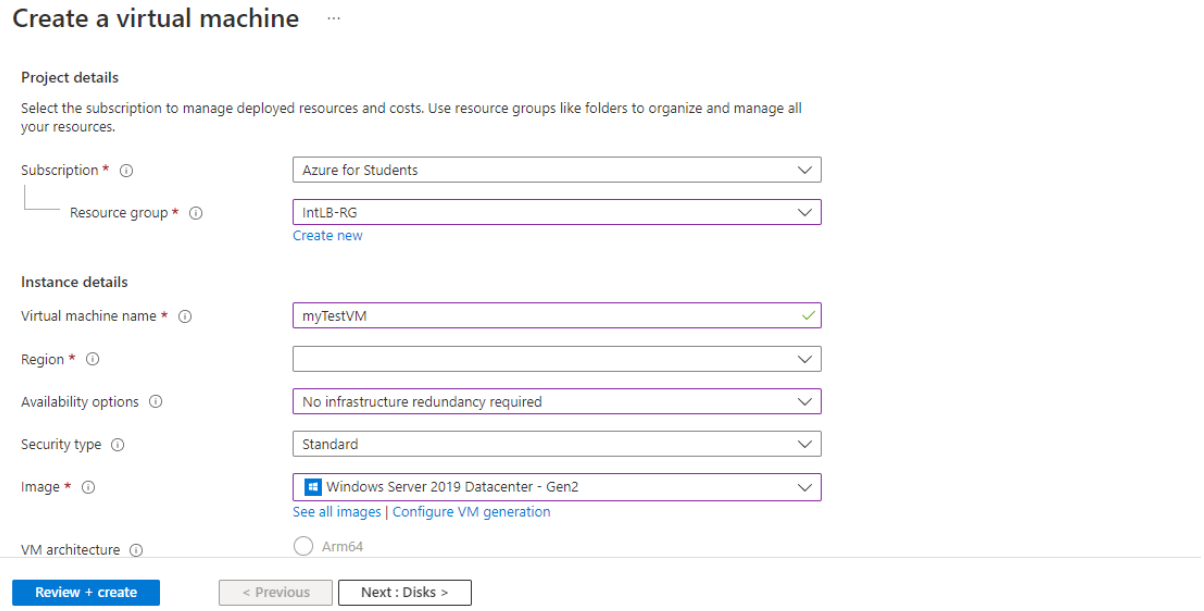
Task 5: Test the load balancer

Create test VM

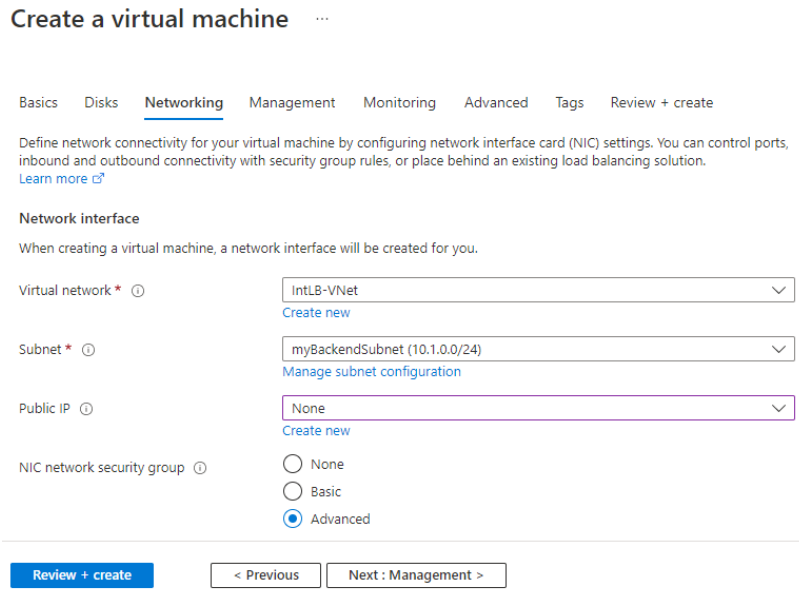
1.On the Azure portal home page, click Create a resource, then virtual, then select Virtual machine (if this resource type is not listed on the page, use the search box at the top of the page to search for it and select it).



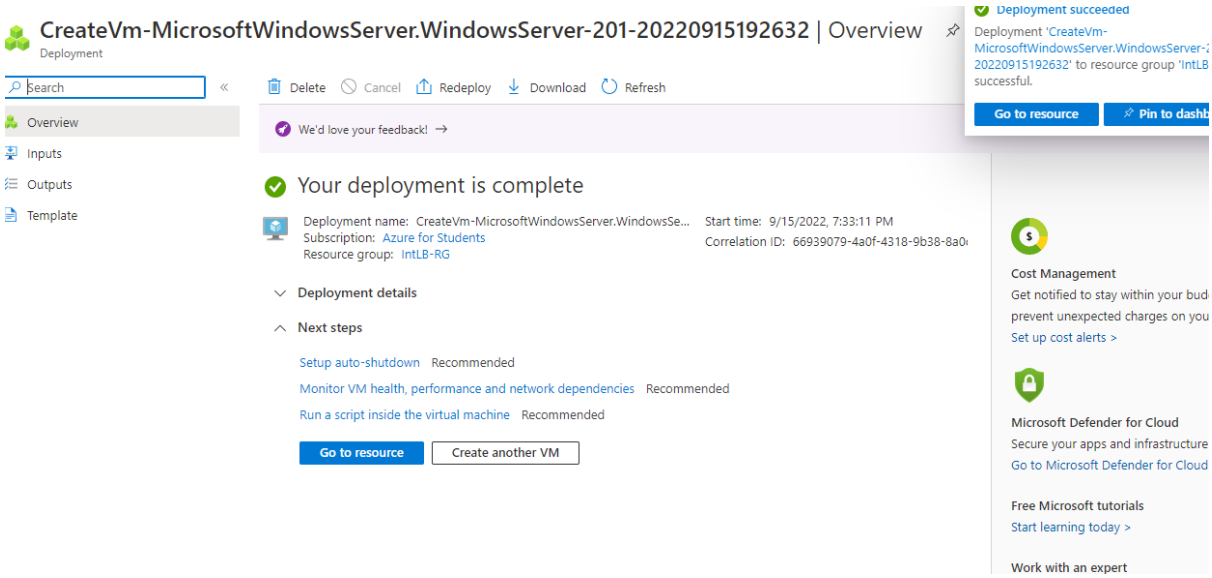
2. On the Create a virtual machine page, on the Basics tab, use the information in the table below to create the first VM.



3.Click Next : Disks, then click Next : Networking.+4. On the Networking tab, use the information in the table below to configure networking settings.

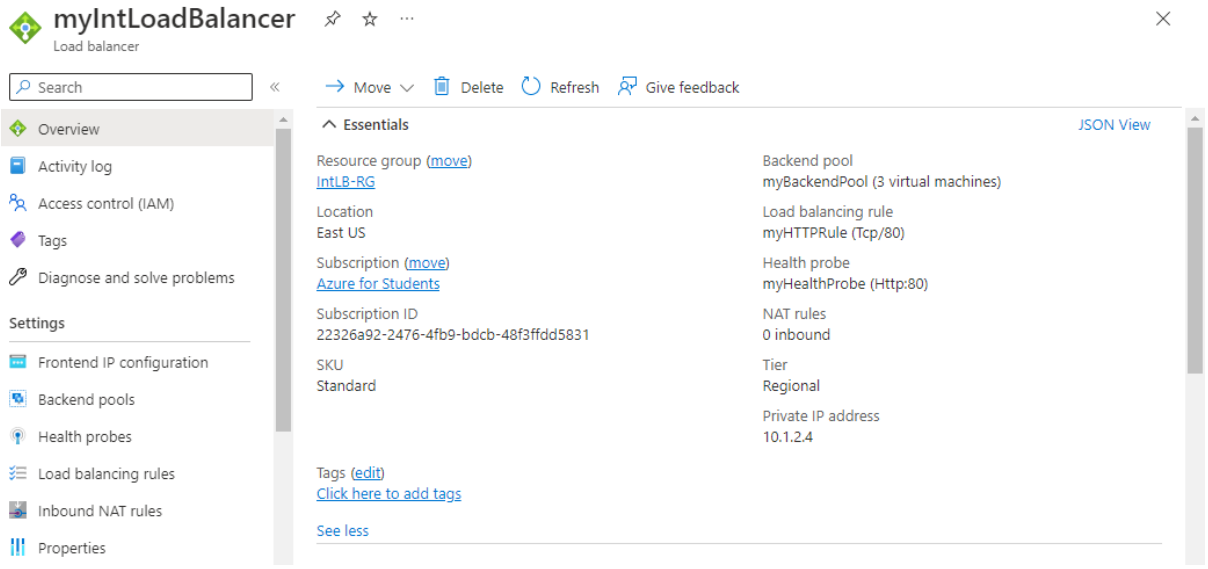


6. Click Review + create.+6. Click Create.

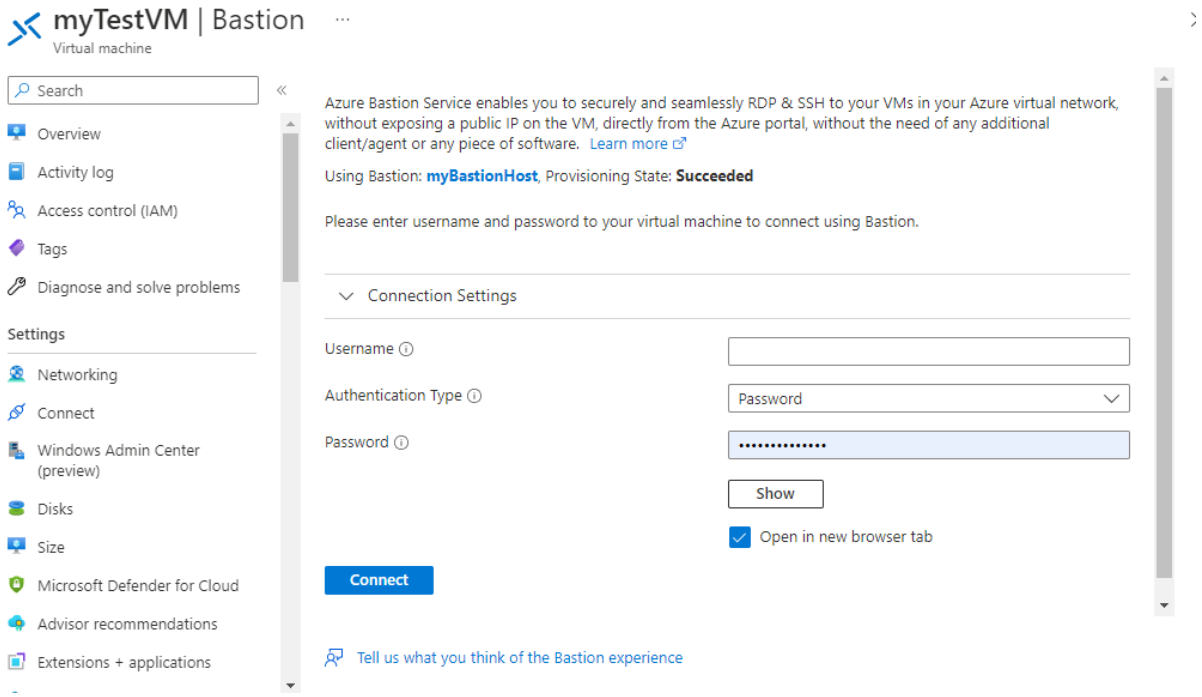


Connect to the test VM to test the load balancer

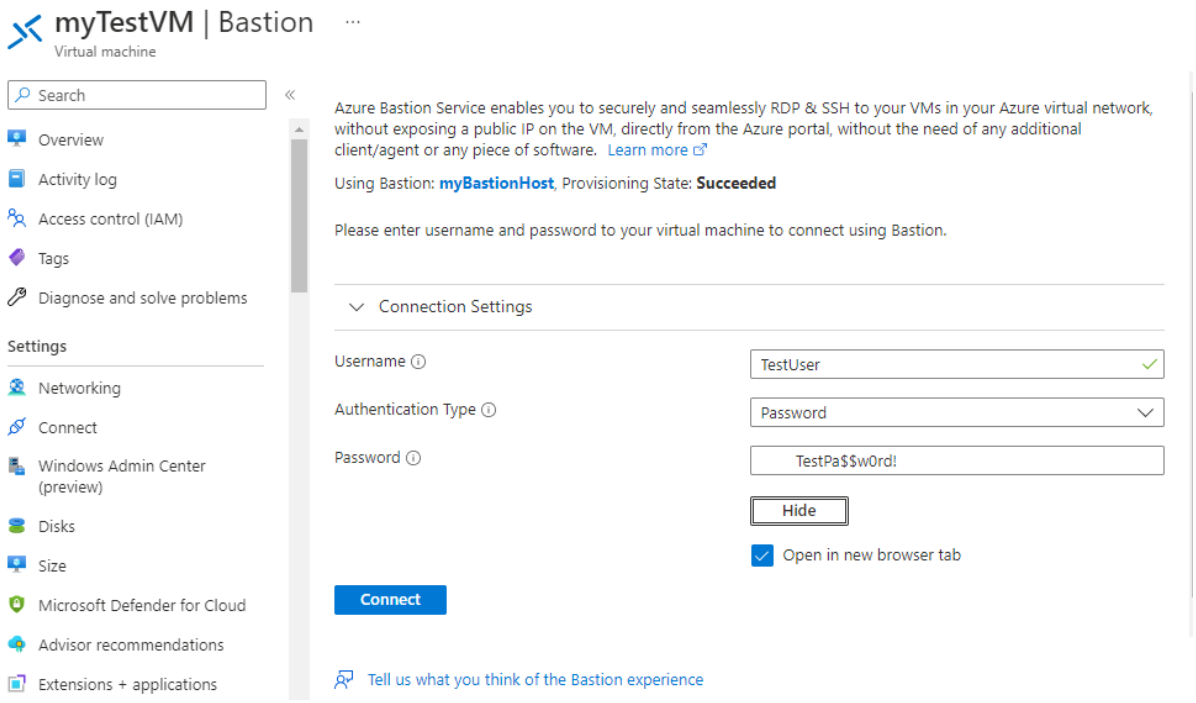
1. On the Azure portal home page, click All resources, then click on myIntLoadBalancer from the resources list. +2. On the Overview page, make a note of the Private IP address, or copy it to the clipboard. Note: you may need to select See more in order to see the Private IP address field.



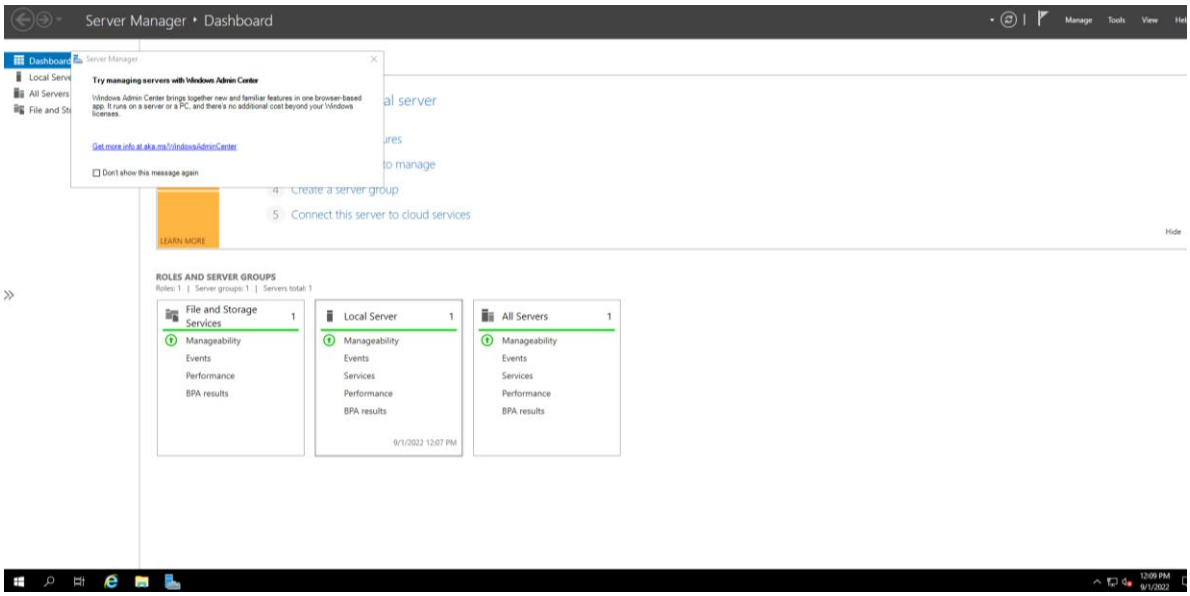
3.Click Home, then on the Azure portal home page, click All resources, then click on the myTestVM virtual machine that you just created. +4. On the Overview page, select Connect, then Bastion.



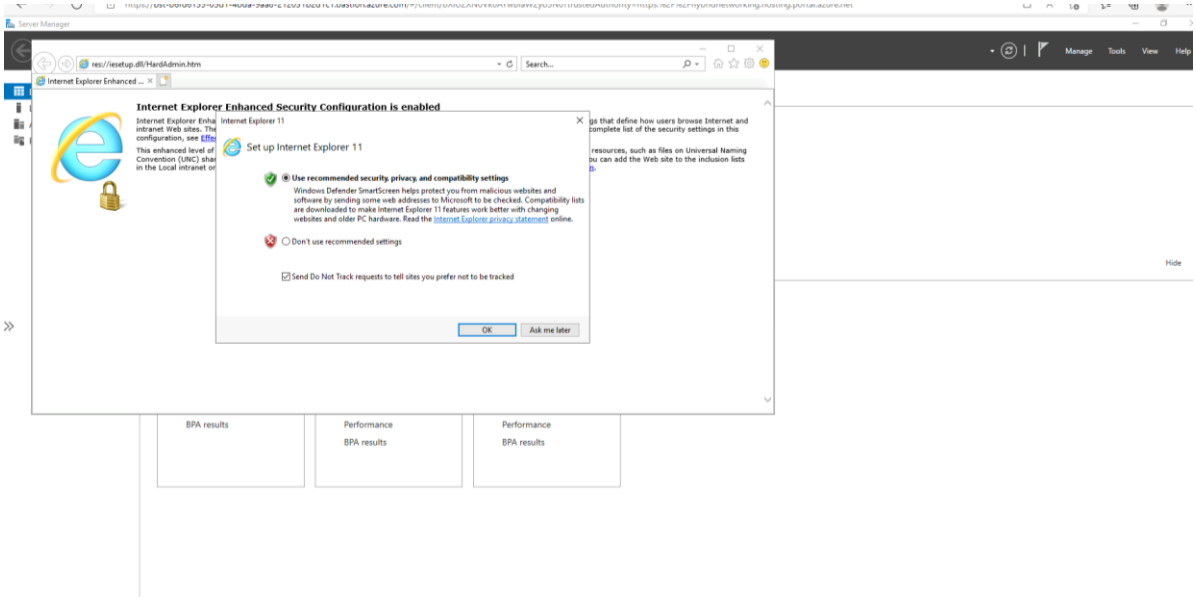
5. Click Use Bastion.+6. In the Username box, type TestUser and in the Password box, type TestPa$$w0rd!, then click Connect. If popup blocker is preventing the new window, allow popup blocker and Connect again.



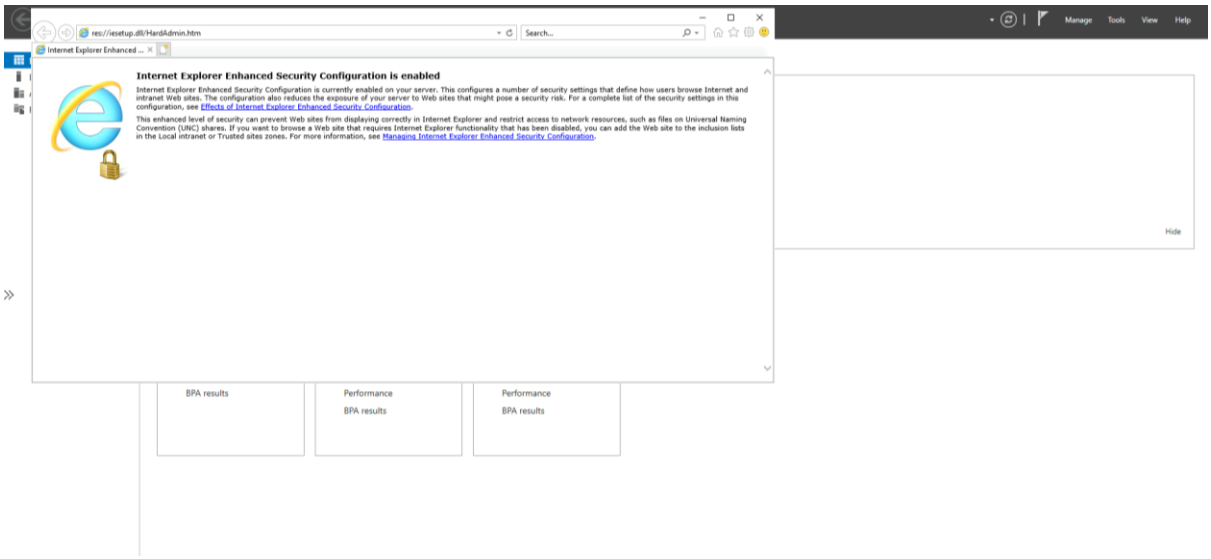
7. The myTestVM window will open in another browser tab.+8. If a Networks pane appears, click Yes.



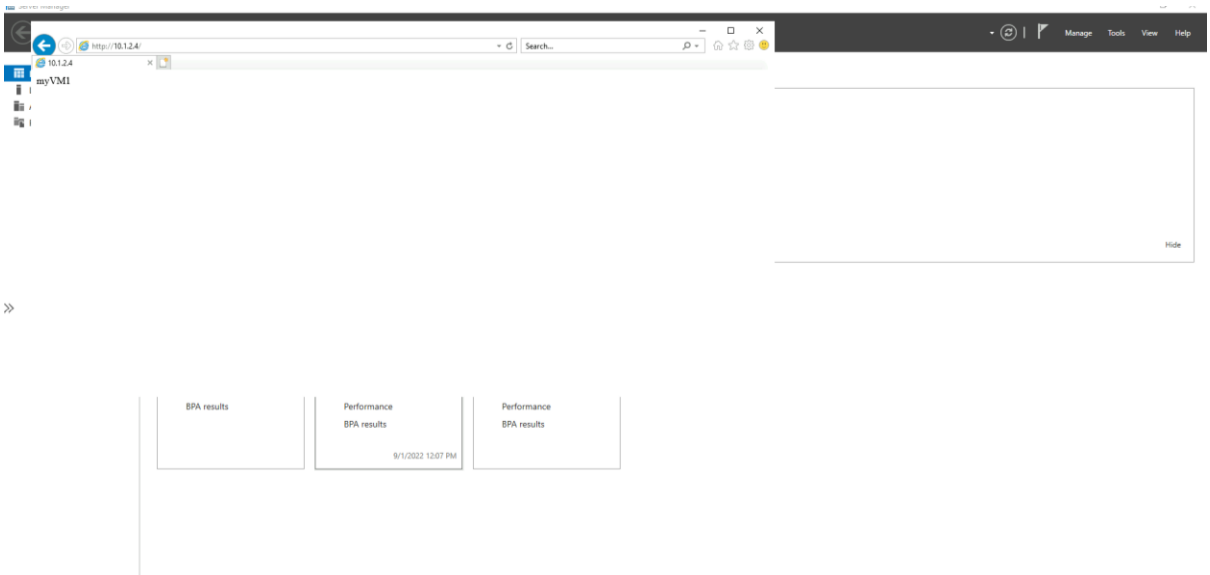
9.Click the Internet Explorer icon in the task bar to open the web browser.



10. Click OK on the Set up Internet Explorer 11 dialog box.



11. Enter (or paste) the Private IP address (e.g. 10.1.0.4) from the previous step into the address bar of the browser and press Enter.



12.The default web home page of the IIS Web server is displayed in the browser window. One of the three virtual machines in the backend pool will respond. + 13. If you click the refresh button in the browser a few times, you will see that the response comes randomly from the different VMs in the backend pool of the internal load balancer.