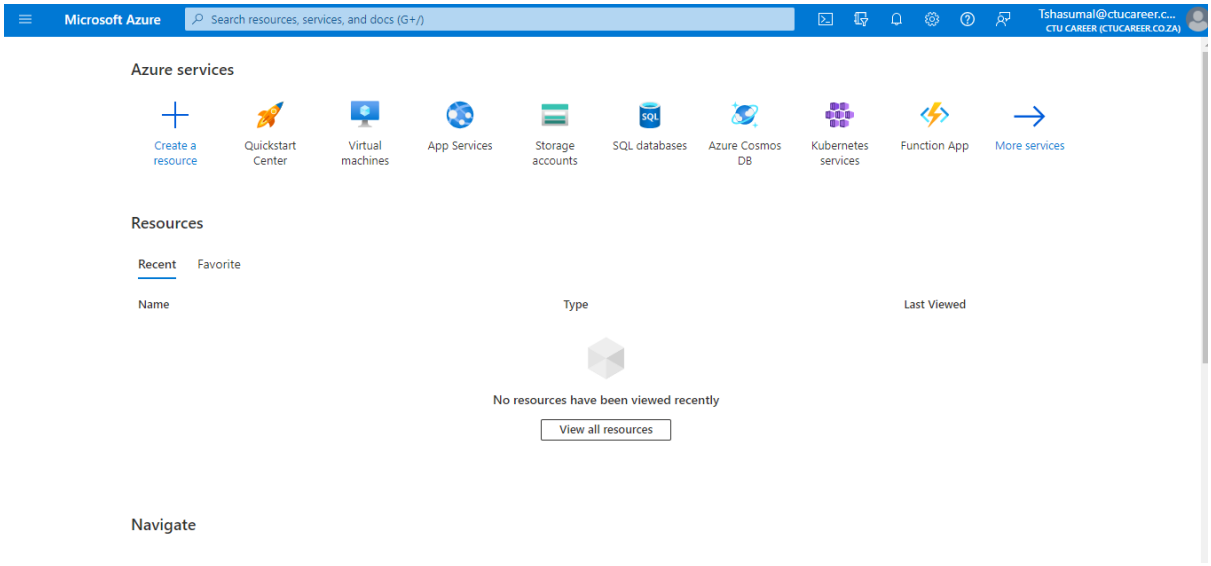
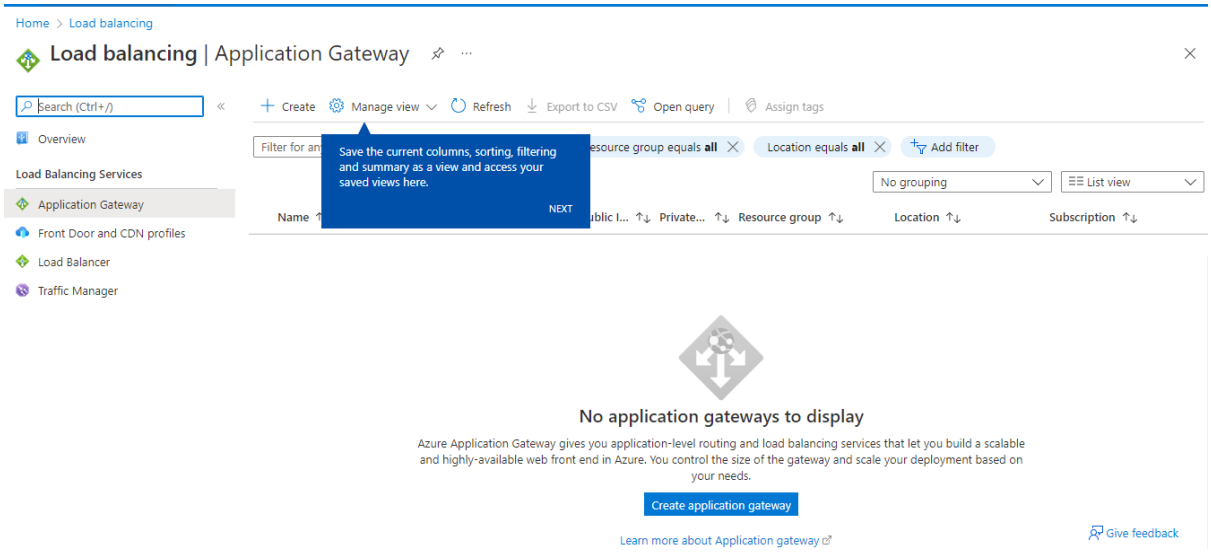
M05-Unit 4 Deploy Azure Application Gateway

Task 1: Create an application gateway

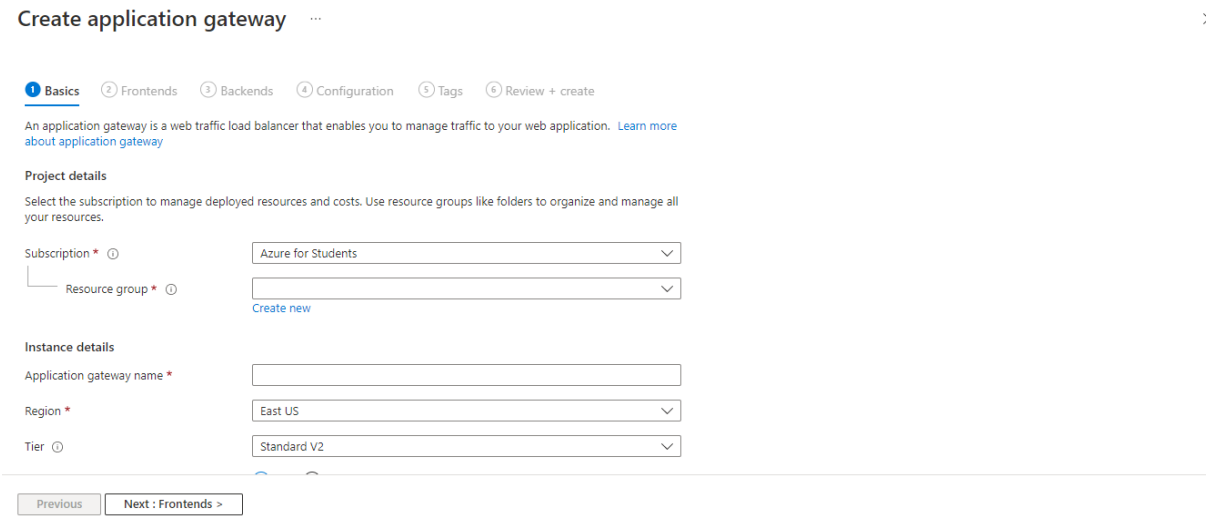
1. Sign in to the Azure portal with your Azure account.



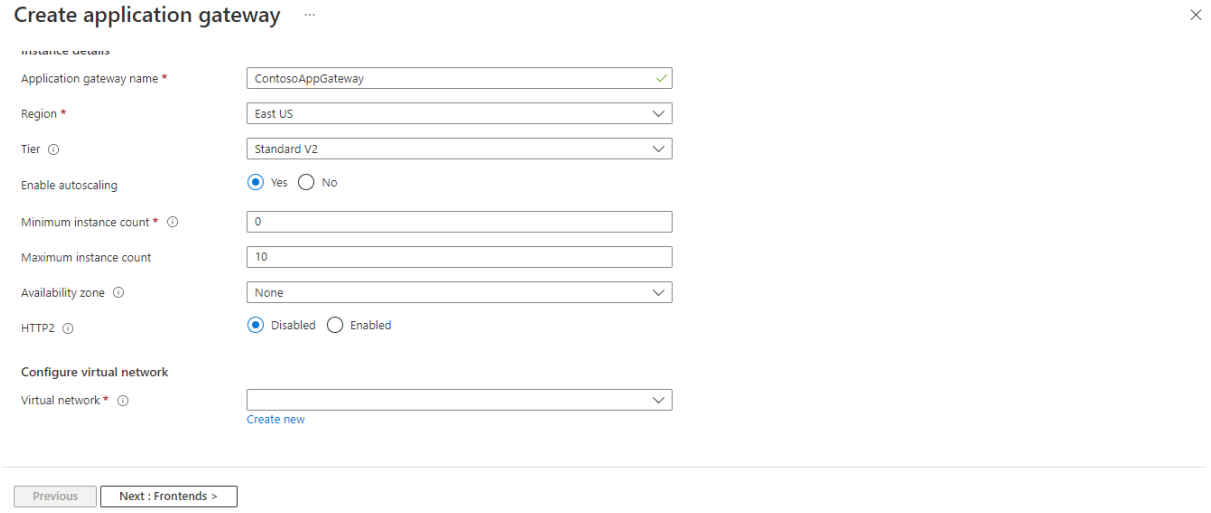
2. On any Azure Portal page, in Search resources, services and docs (G+/), enter application gateway, and then select Application gateways from the results.



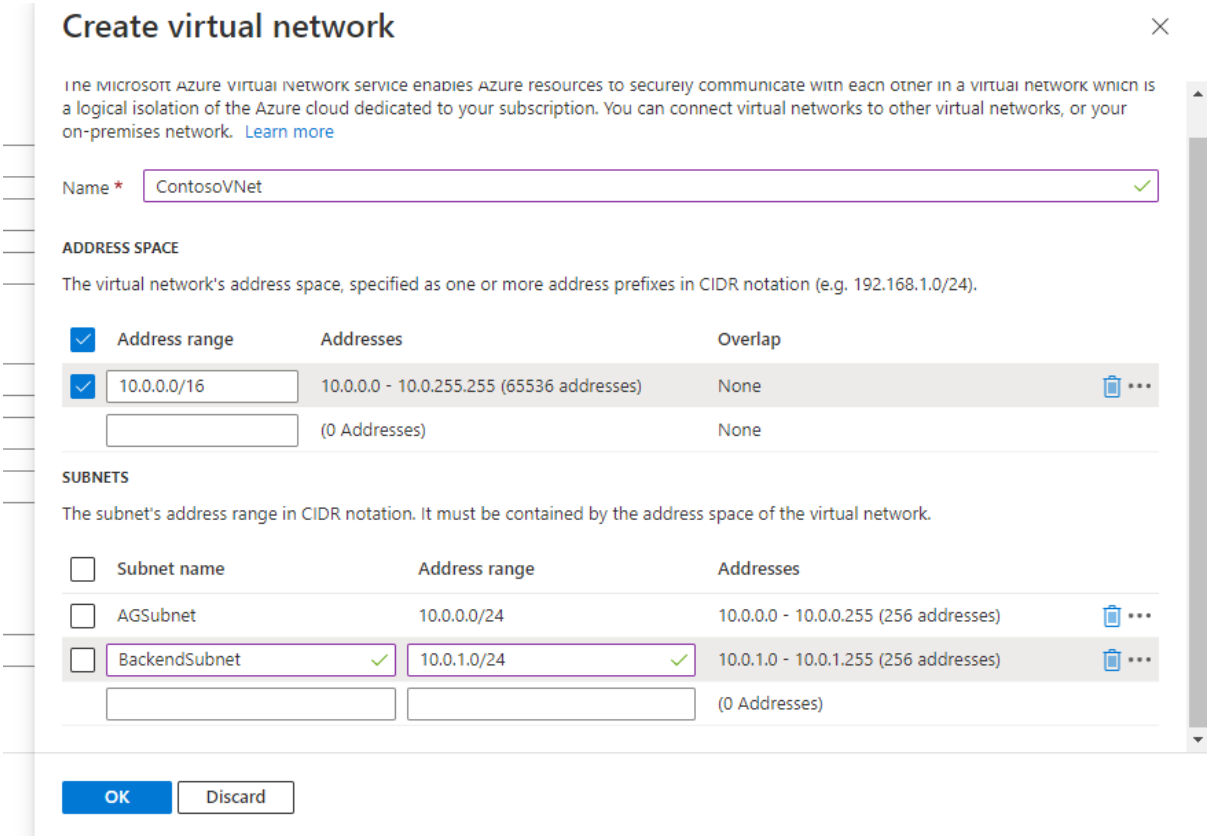
3. On the Application gateways page, select + Create.



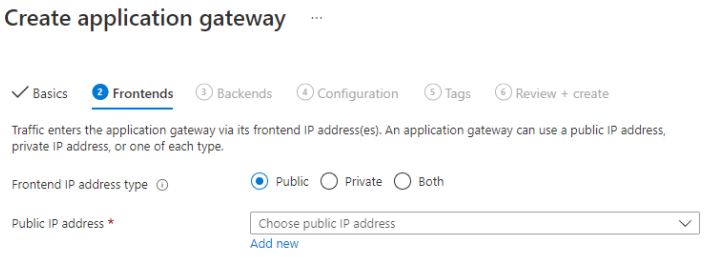
4. On the Create application gateway Basics tab, enter, or select the following information:



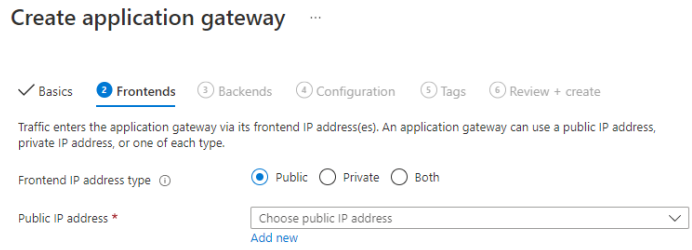
5. In Create virtual network, enter, or select the following information:



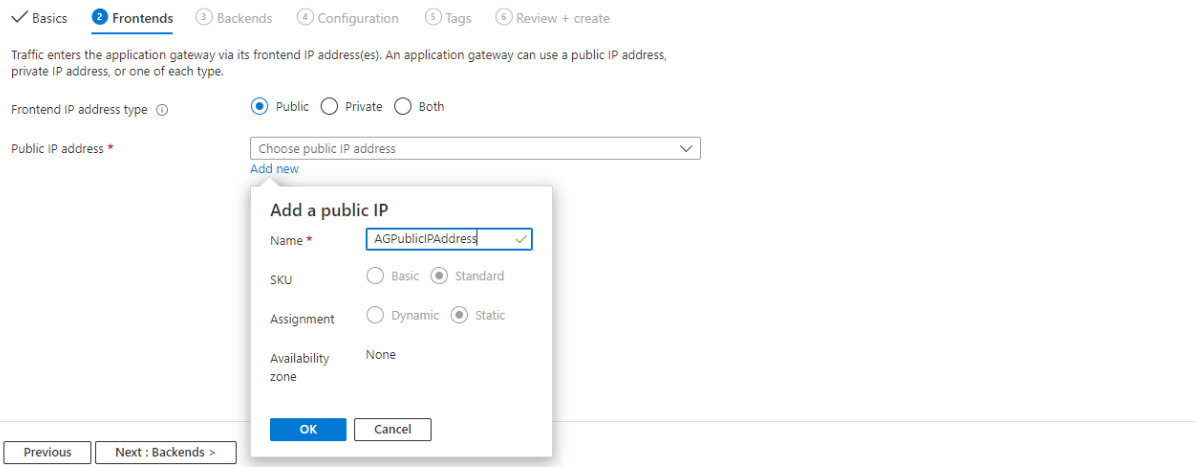
6+7. Accept the default values for the other settings and then select Next: Frontends.



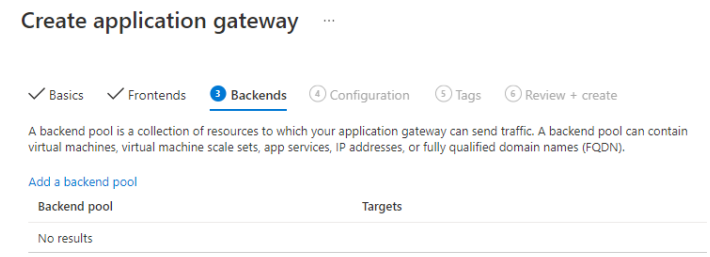
8. On the Frontends tab, verify Frontend IP address type is set to Public.



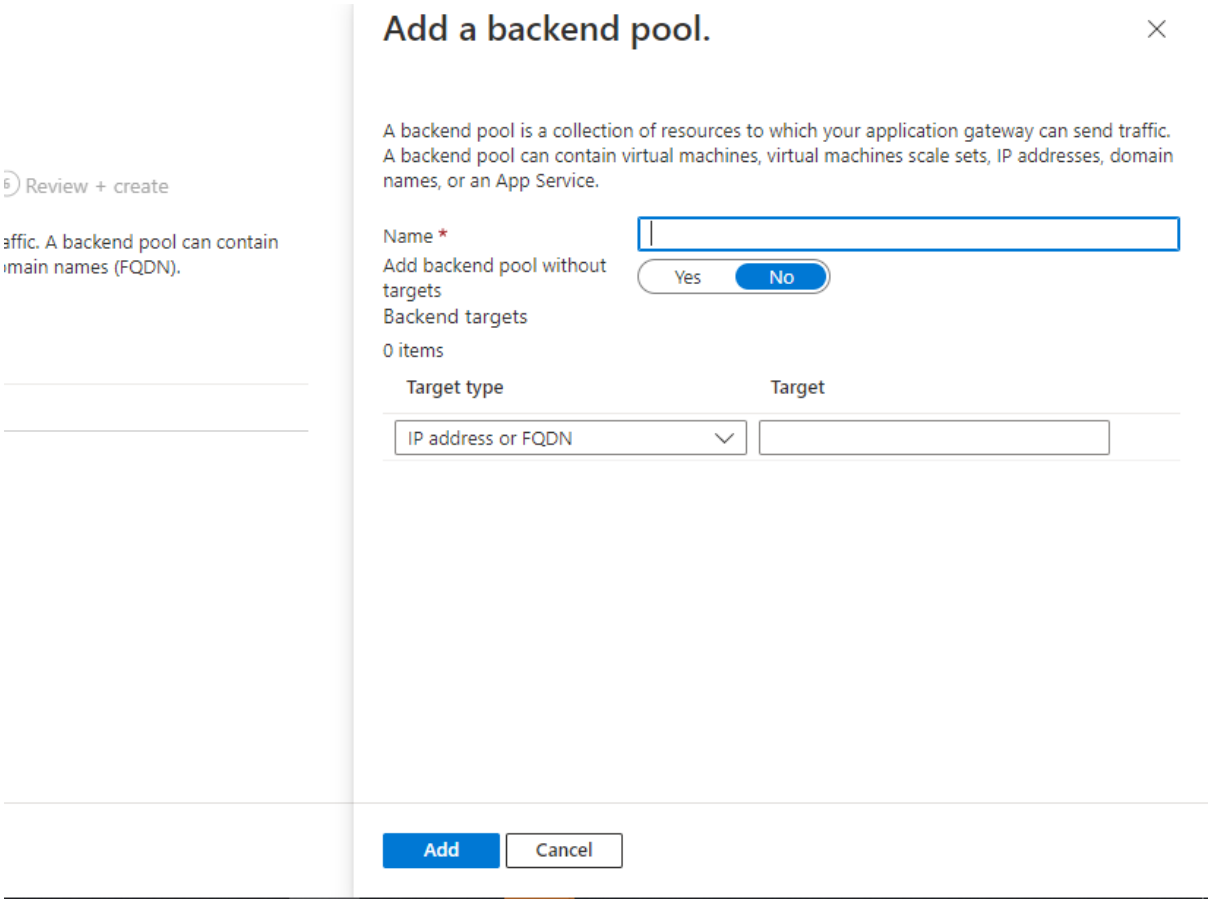
9. Select Add new for the Public IP address and enter AGPublicIPAddress for the public IP address name, and then select OK.



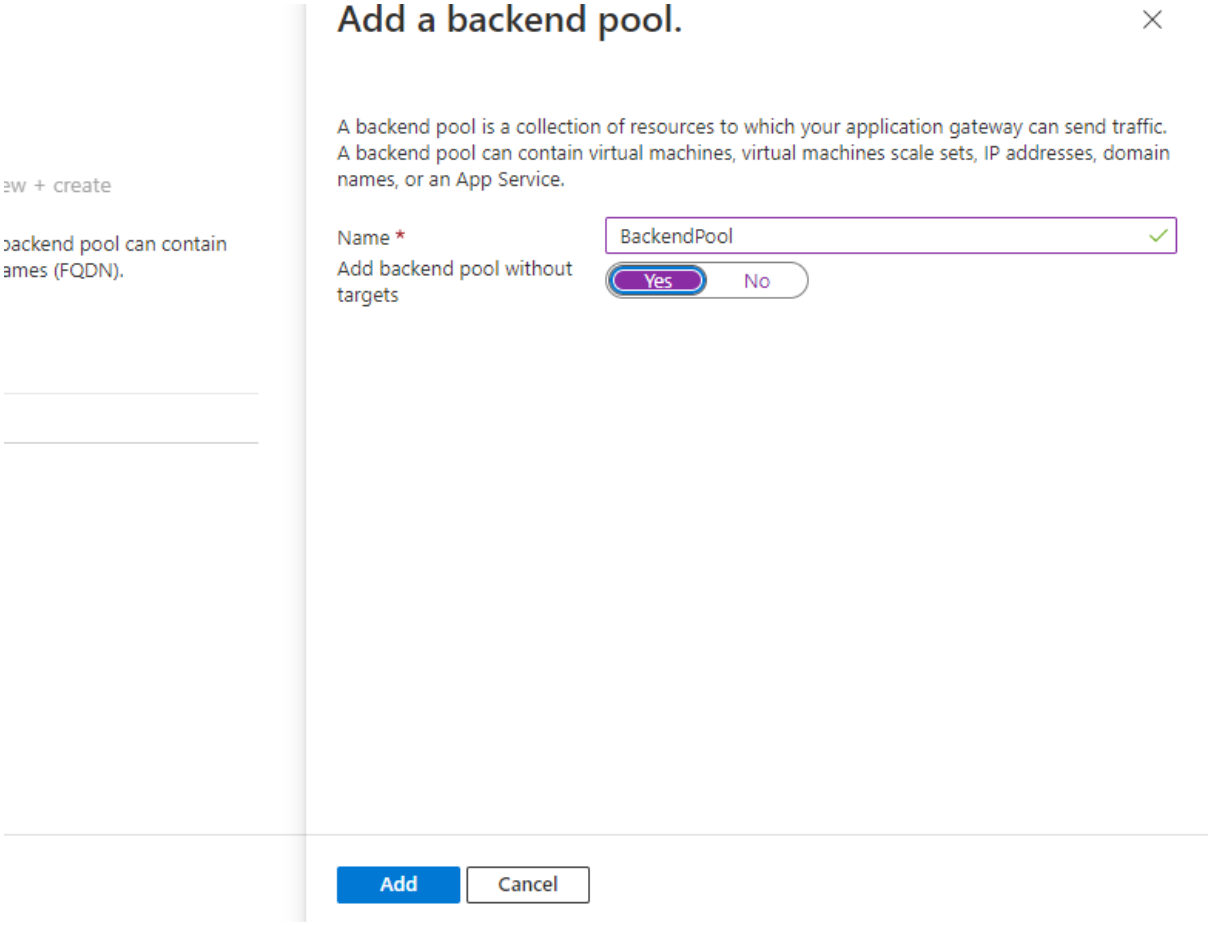
10. Select Next: Backends.



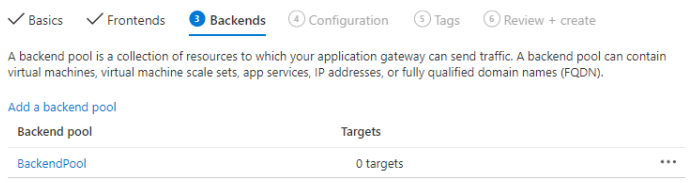
11. On the Backends tab, select Add a backend pool.



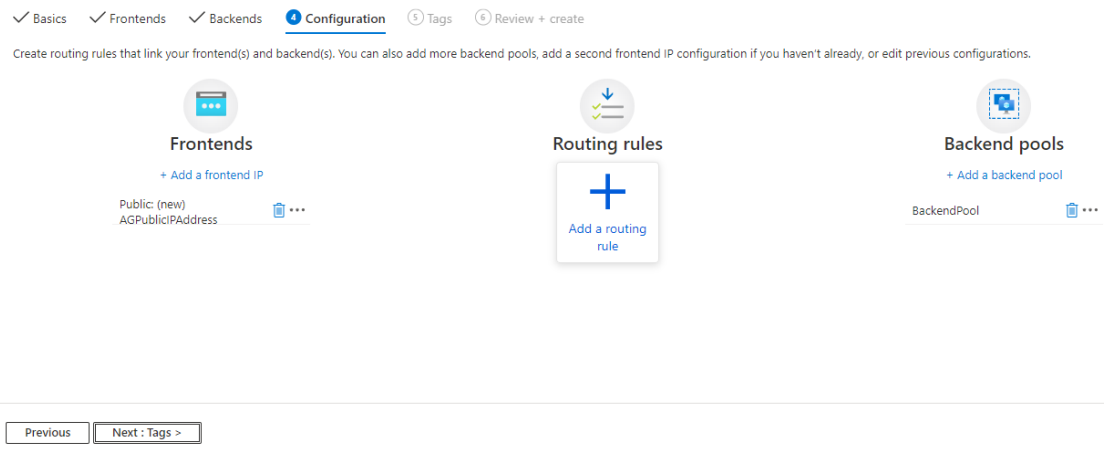
12. In the Add a backend pool window that opens, enter the following values to create an empty backend pool:



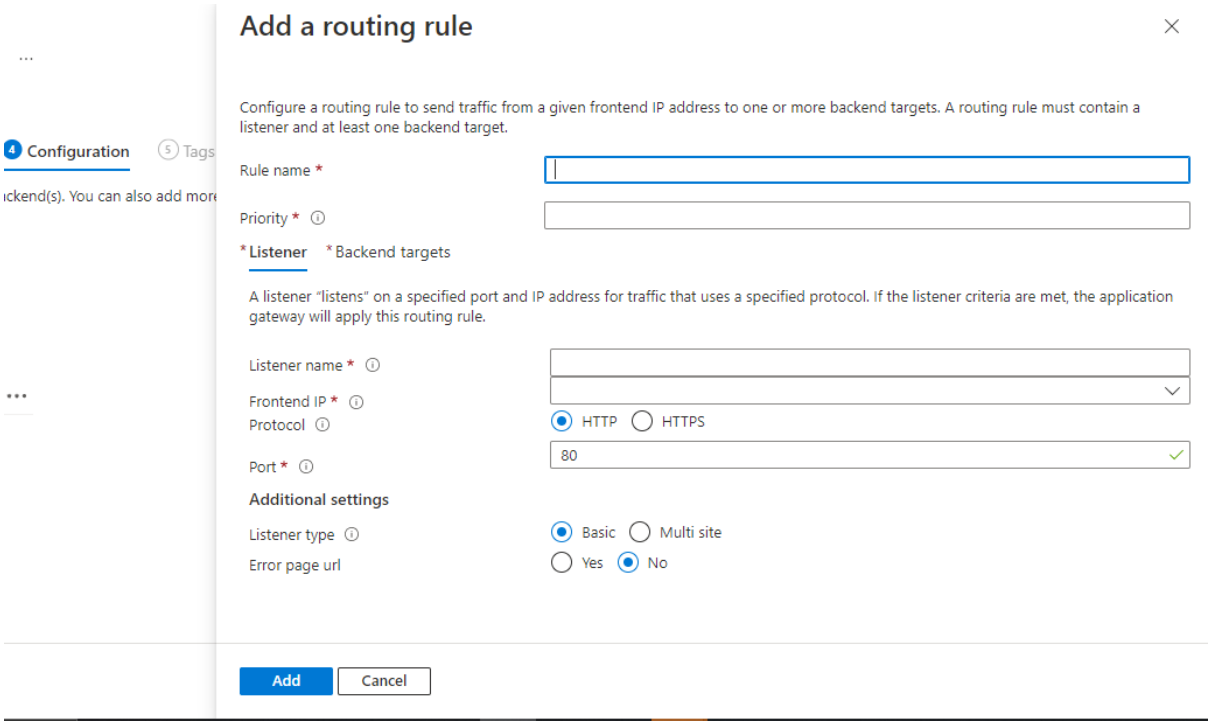
13. In the Add a backend pool window, select Add to save the backend pool configuration and return to the Backends tab.



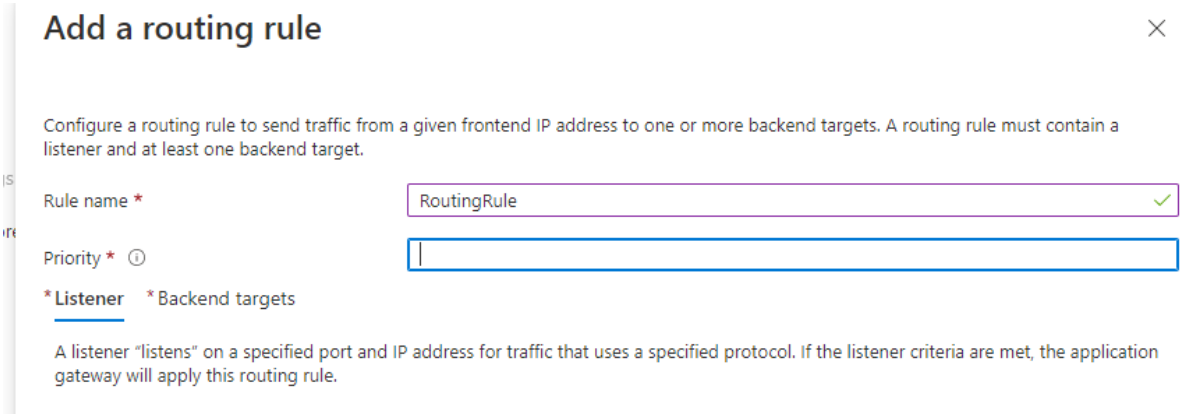
14. On the Backends tab, select Next: Configuration.



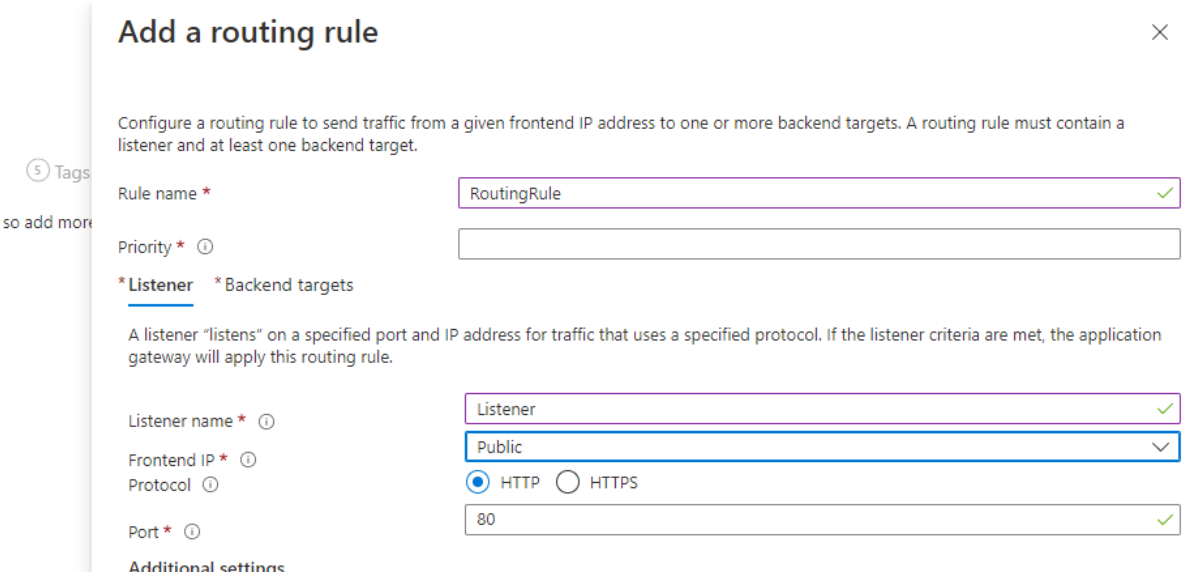
15. On the Configuration tab, you'll connect the frontend and backend pool you created using a routing rule.



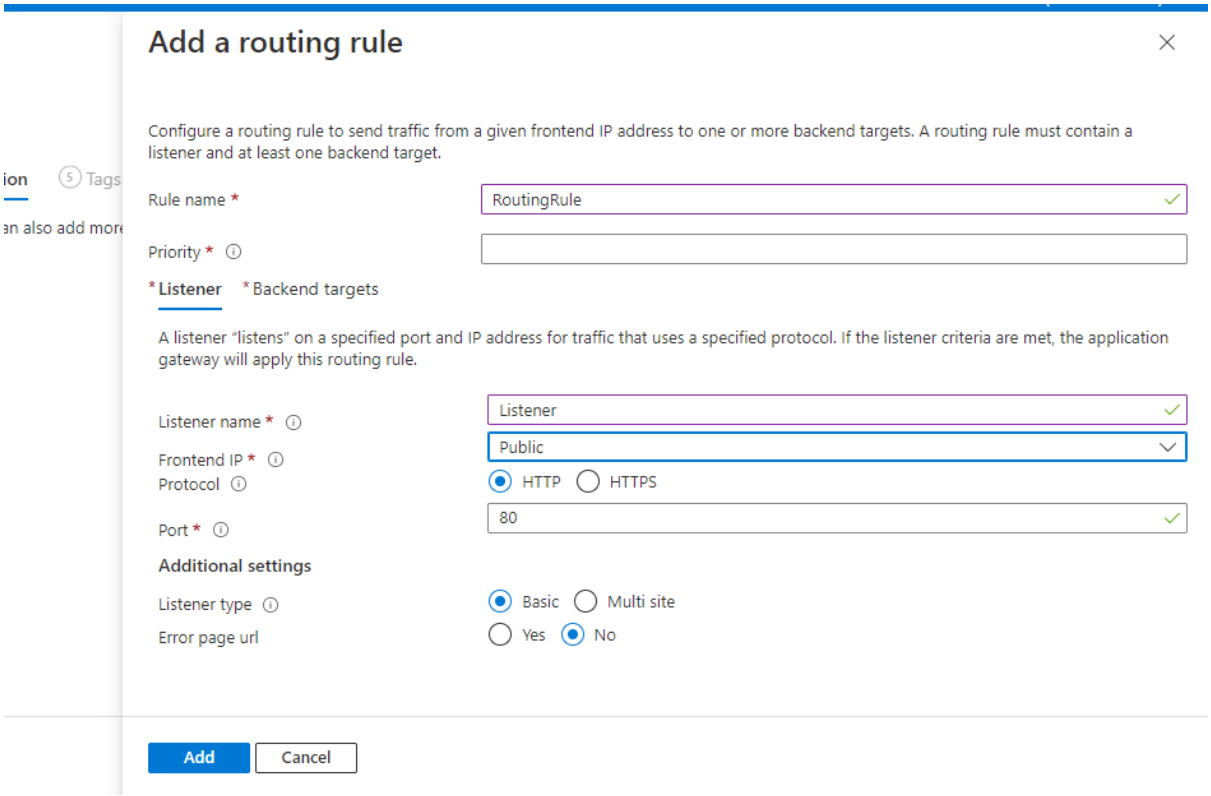
16. In the Routing rules column, select Add a routing rule. +17. In the Rule name box, enter RoutingRule.



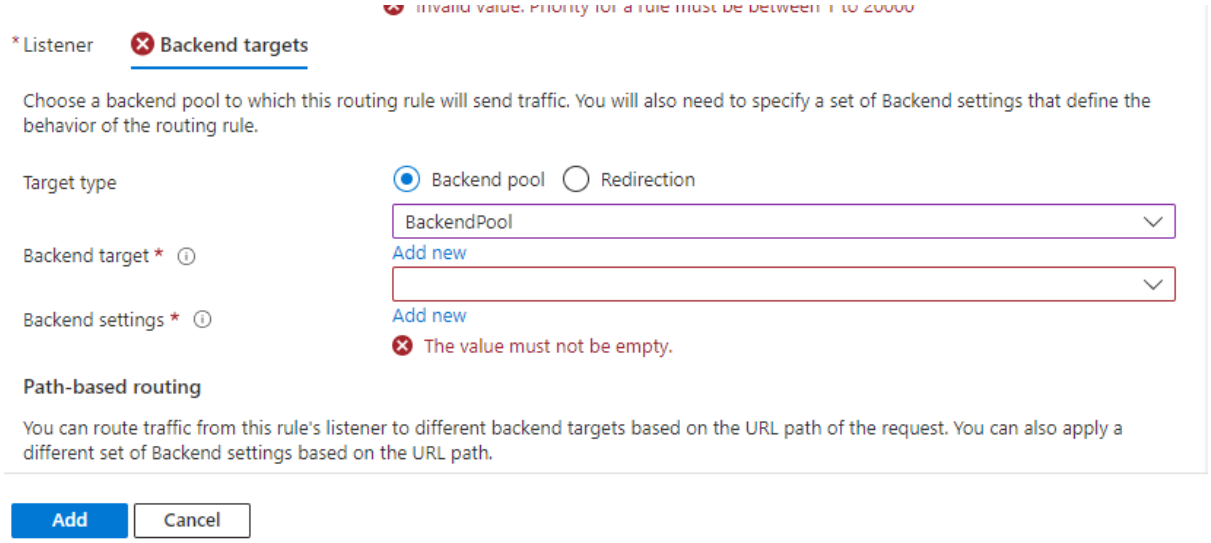
18. On the Listener tab, enter or select the following information:



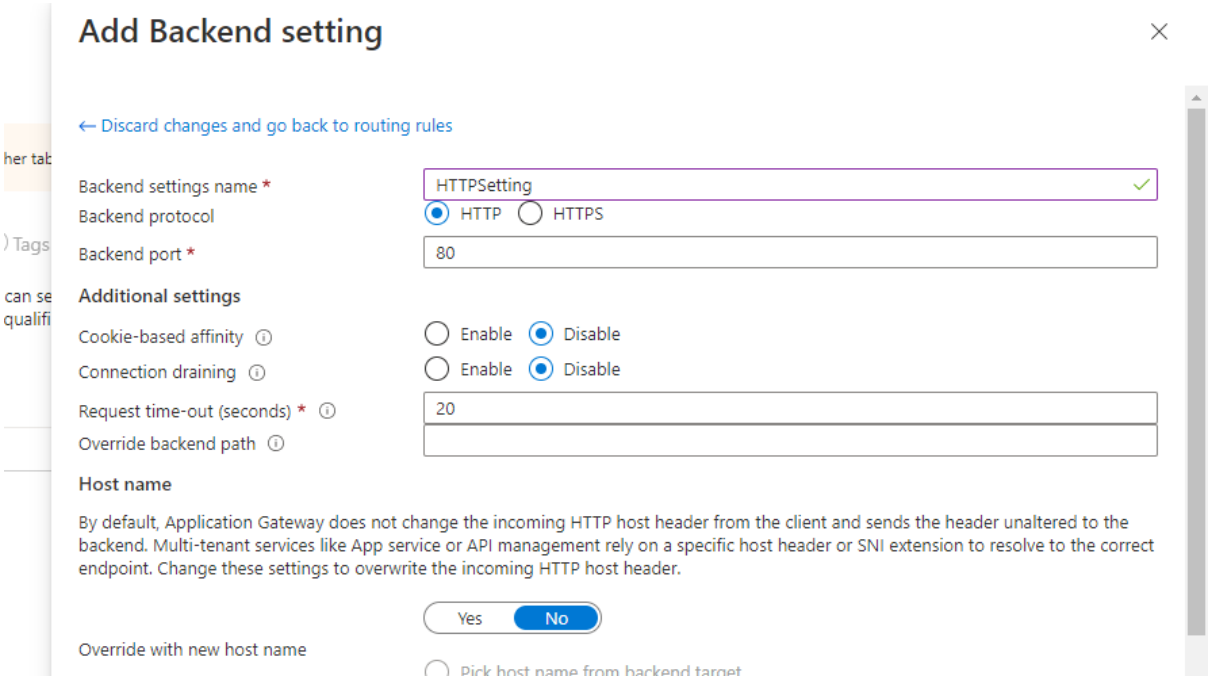
19. Accept the default values for the other settings on the Listener tab.



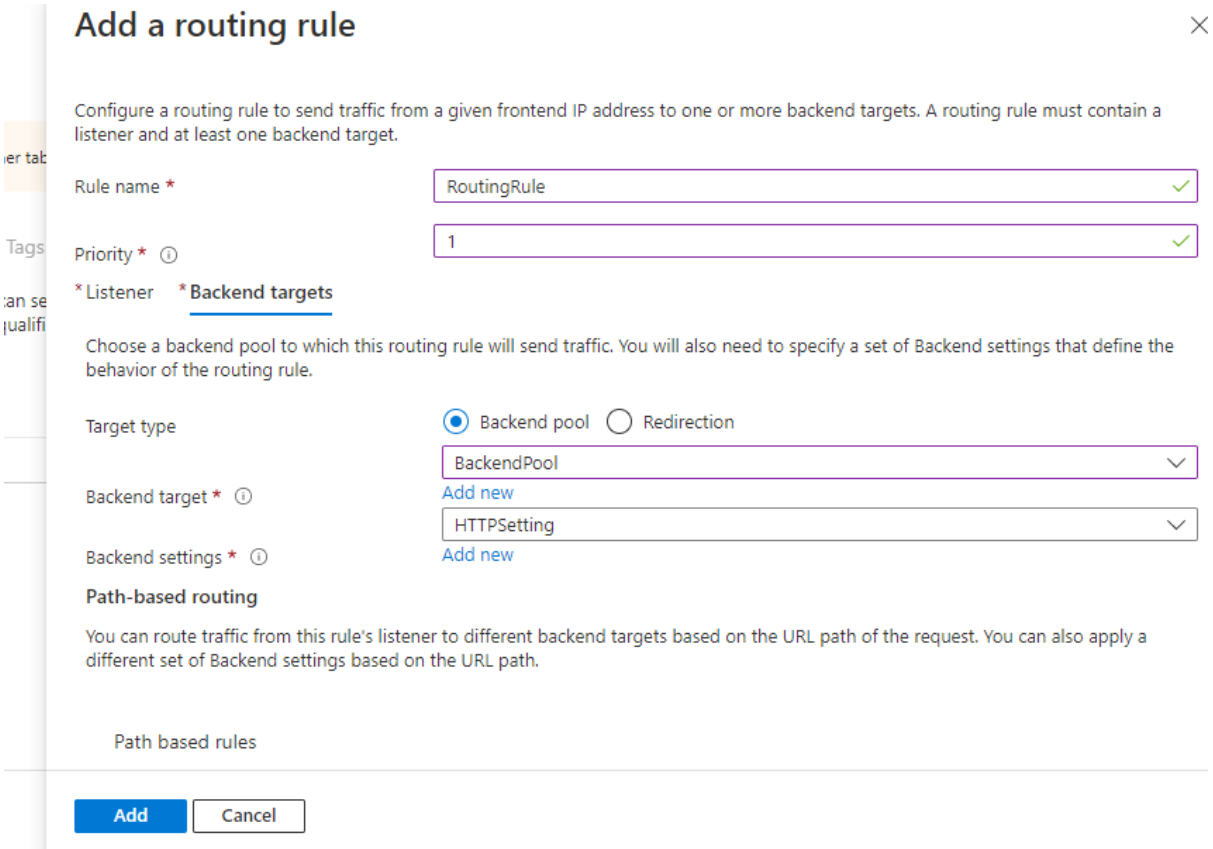
20. Select the Backend targets tab to configure the rest of the routing rule. +21. On the Backend targets tab, enter or select the following information:



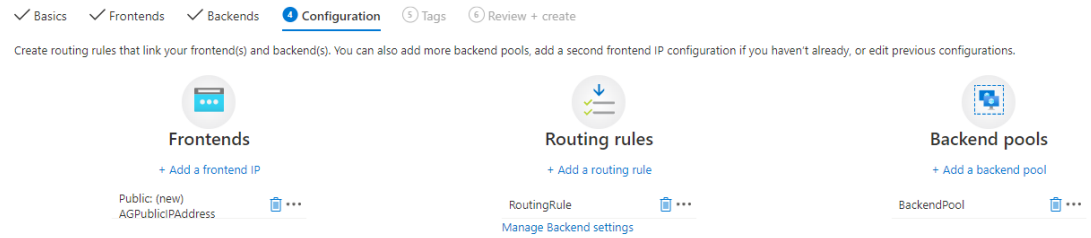
22. In Add a HTTP setting, enter or select the following information:



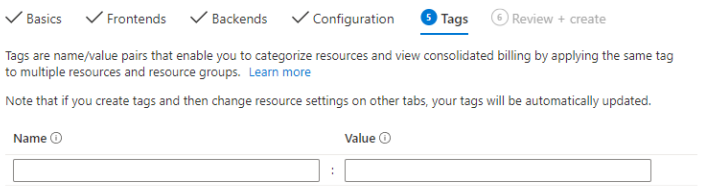
23. Accept the default values for the other settings in the Add an HTTP setting window, then select Add to return to Add a routing rule.



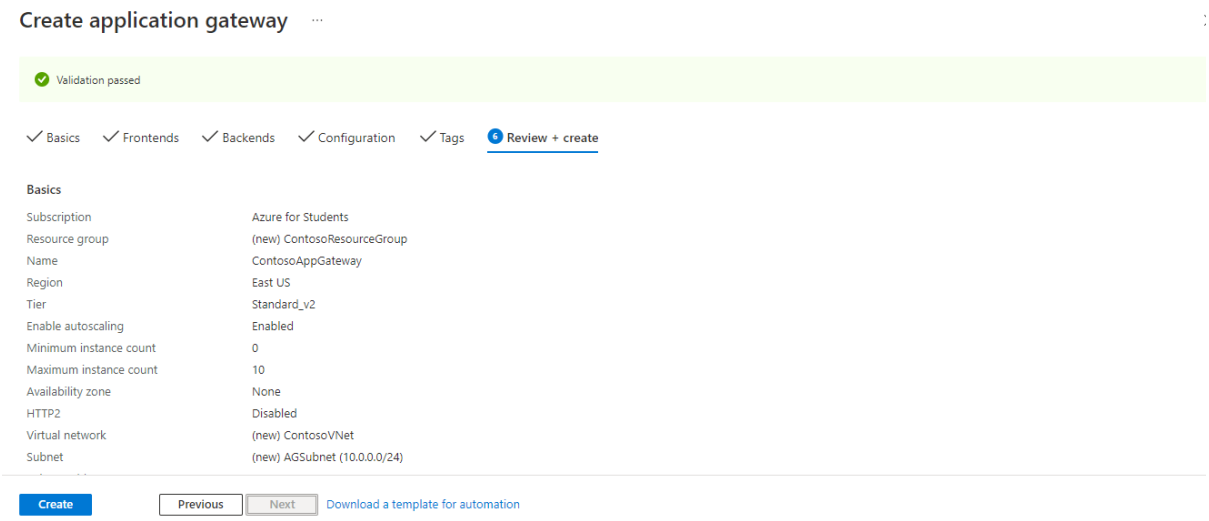
24. Select Add to save the routing rule and return to the Configuration tab.



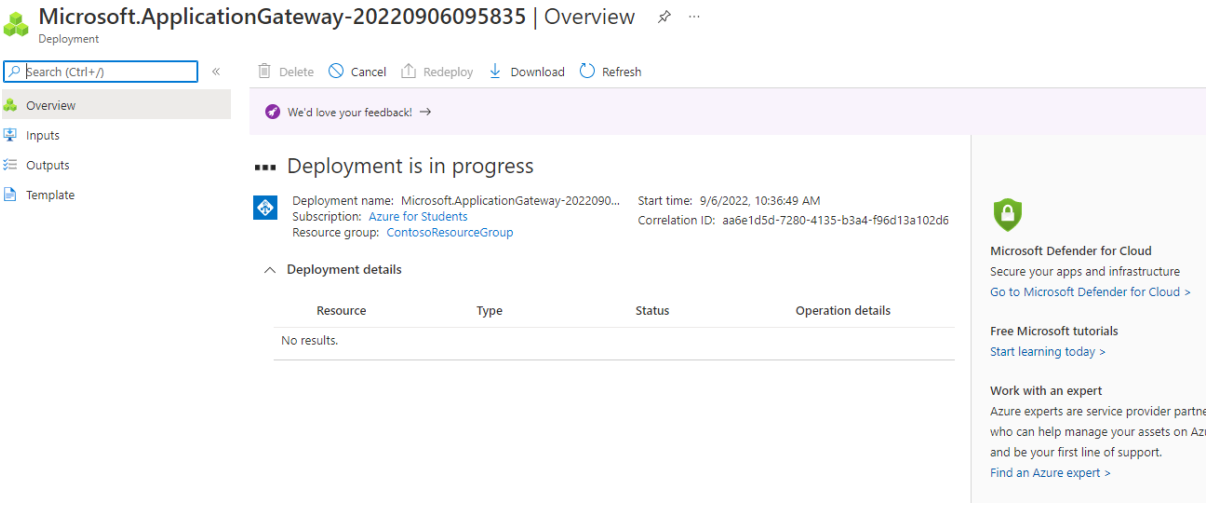
25. Select Next: Tags and then Next: Review + create.



26. Review the settings on the Review + create tab

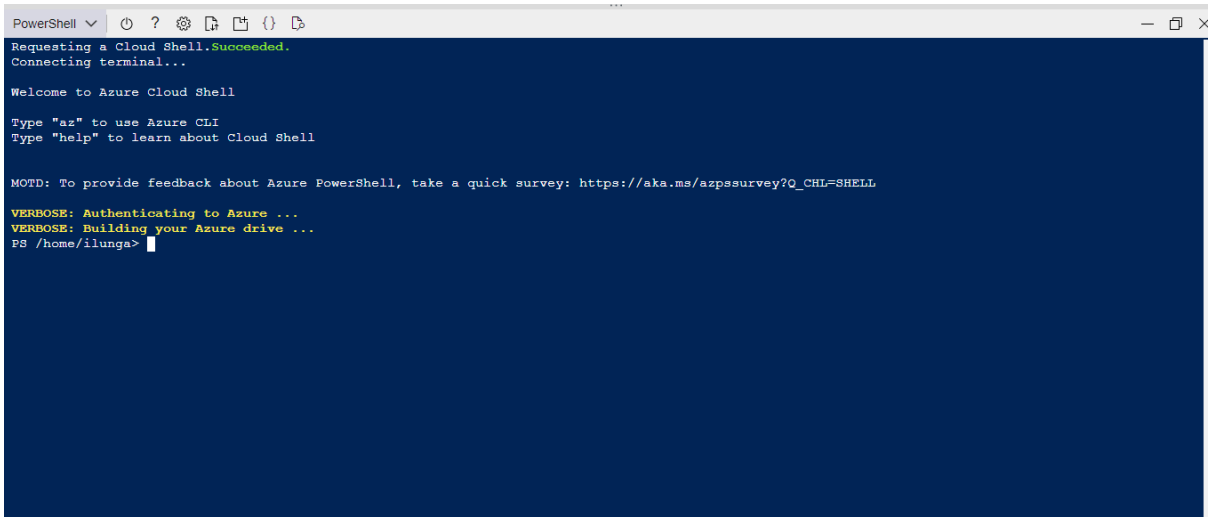


27. Select Create to create the virtual network, the public IP address, and the application gateway.

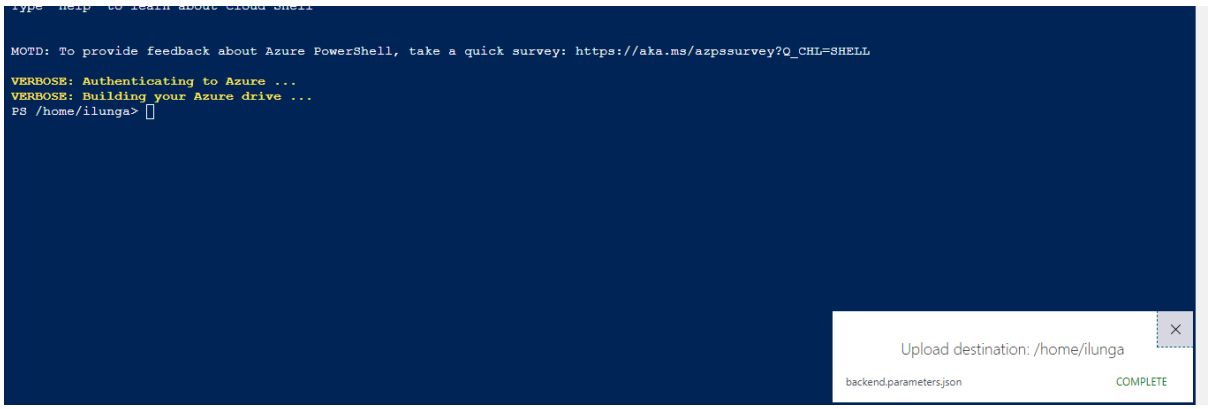


Task 2: Create virtual machines

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



2. In the toolbar of the Cloud Shell pane, select the Upload/Download files icon, in the drop-down menu, select Upload and upload the following files backend.json and backend.parameters.json into the Cloud Shell home directory one by one from the source folder F:\Allfiles\Exercises\M05.



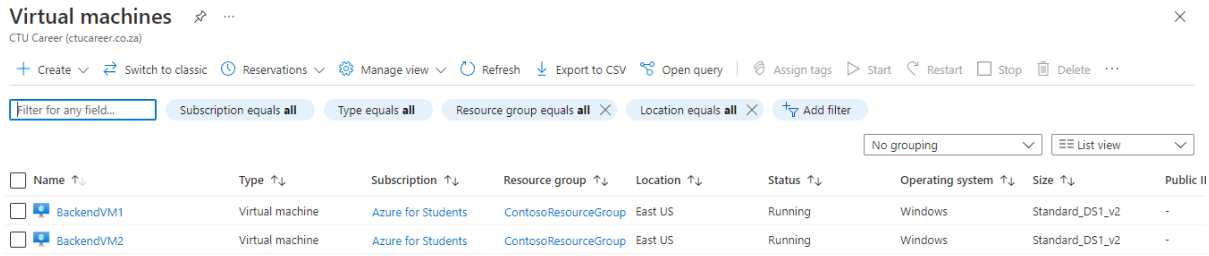
3. Deploy the following ARM templates to create the VMs needed for this exercise:

```
MOTD: To provide feedback about Azure PowerShell, take a quick survey: https://aka.ms/azpssurvey?Q_CHL=SHELL

VERBOSE: Authenticating to Azure ...
VERBOSE: Building your Azure drive ...
PS /home/ilunga> $RGName = "ContosoResourceGroup"
PS /home/ilunga>
PS /home/ilunga> New-AzResourceGroupDeployment -ResourceGroupName $RGName -TemplateFile backend.json -TemplateParameterFile backend.parameters.json
```

4.When the deployment is complete, go to the Azure portal home page, and then select Virtual Machines.

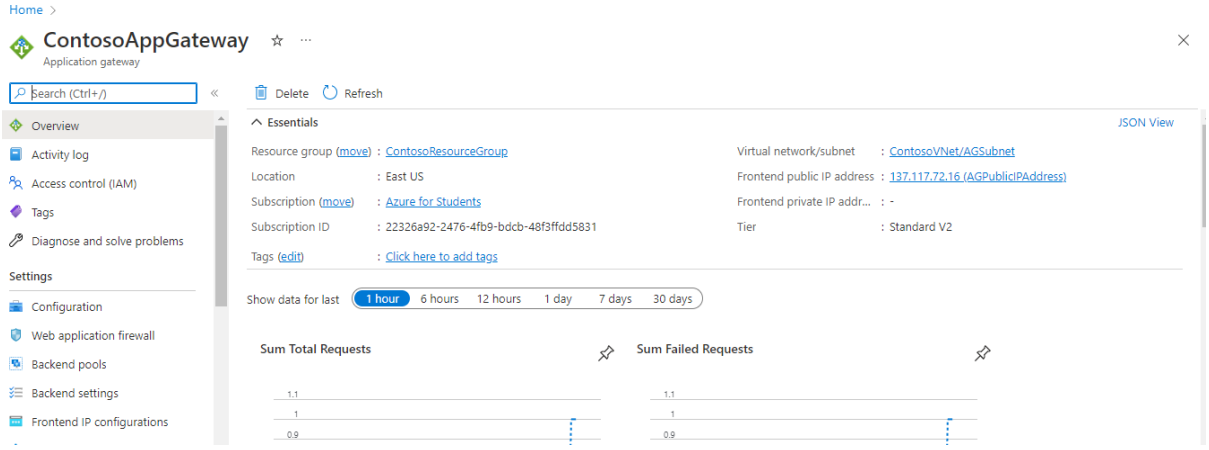
```
VERBOSE: Authenticating to Azure ...
VERBOSE: Building your Azure drive ...
PS /home/ilunga> $RGName = "ContosoResourceGroup"
PS /home/ilunga>
PS /home/ilunga> New-AzResourceGroupDeployment -ResourceGroupName $RGName -TemplateFile backend.json -TemplateParameterFile backend.parameters.json

DeploymentName          : backend
ResourceGroupName       : ContosoResourceGroup
ProvisioningState       : Succeeded
Timestamp               : 9/6/2022 9:01:09 AM
Mode                    : Incremental
TemplateLink            :
Parameters              :
                          Name             Type                       Value
                          ===============  =========================  ==========
                          vmName1          String                     "BackendVM1"
                          nicName1         String                     "BackendVM1-nic"
                          vmName2          String                     "BackendVM2"
                          nicName2         String                     "BackendVM2-nic"
                          vmSize           String                     "Standard_DS1_v2"
                          adminUsername    String                     "TestUser"
                          adminPassword    SecureString               null

Outputs                 :
DeploymentDebugLogLevel :


PS /home/ilunga>
```

5.Verify that both virtual machines have been created.

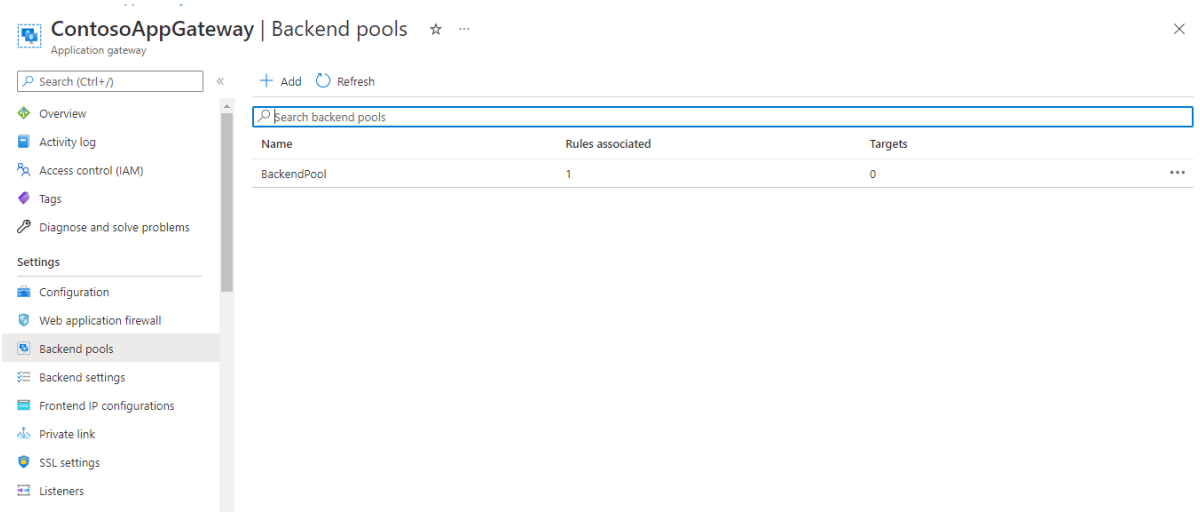


Task 3: Add backend servers to backend pool

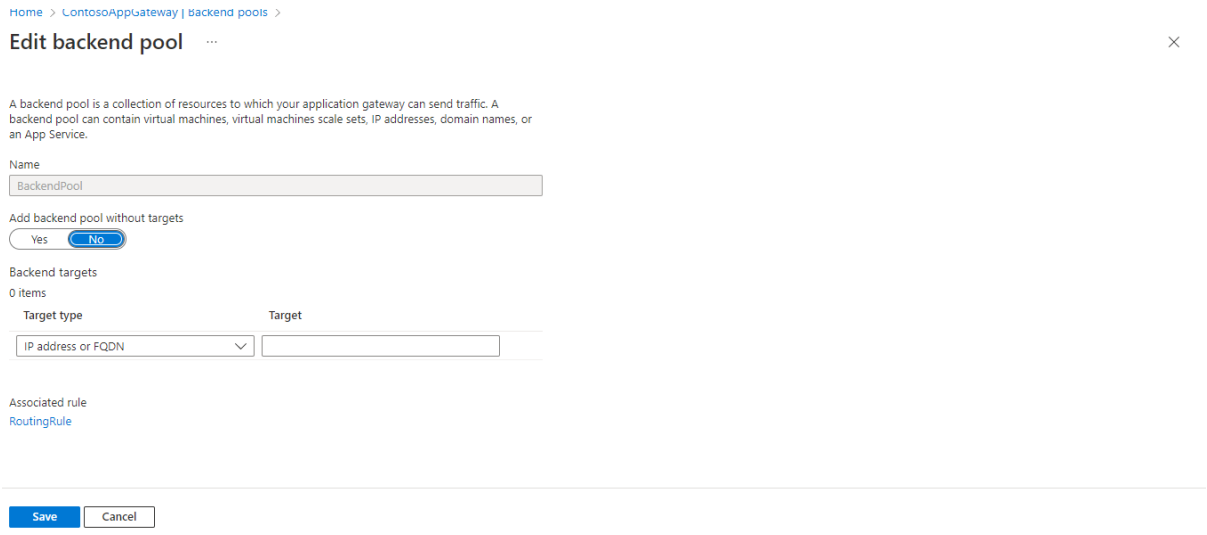
1.On the Azure portal menu, select All resources or search for and select All resources. Then select ContosoAppGateway.



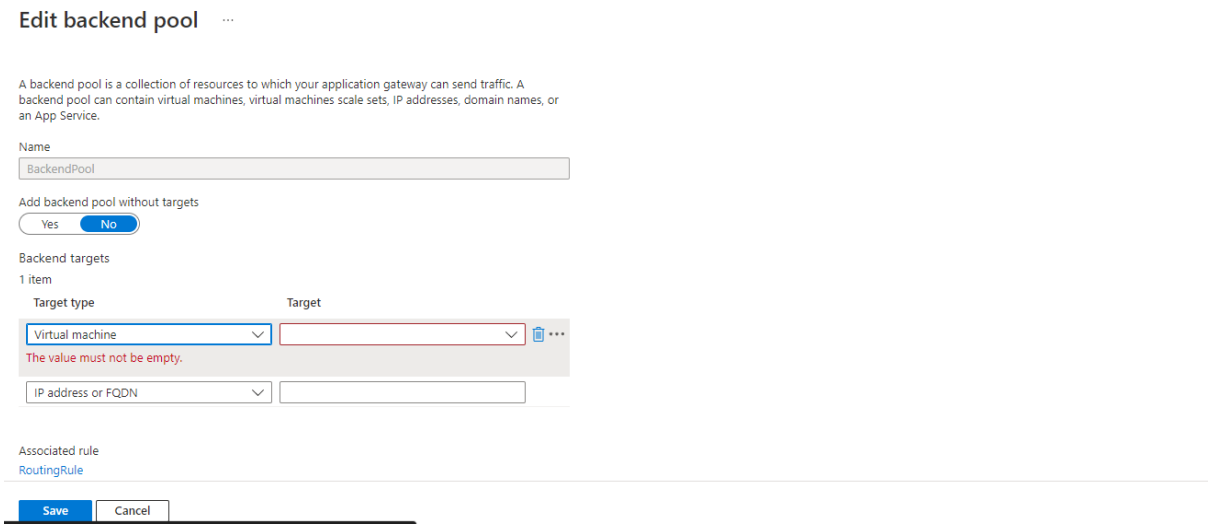
2. Under Settings, select Backend pools.



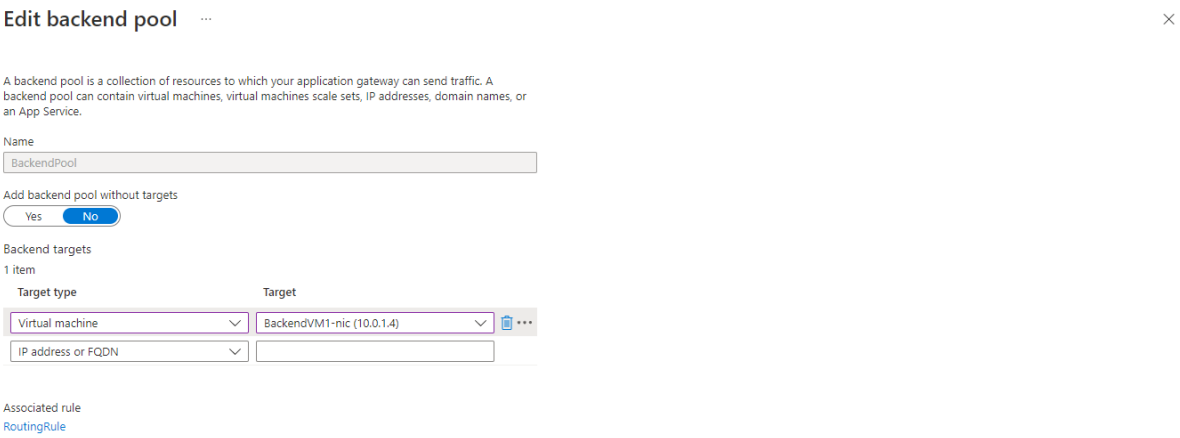
3.Select BackendPool.



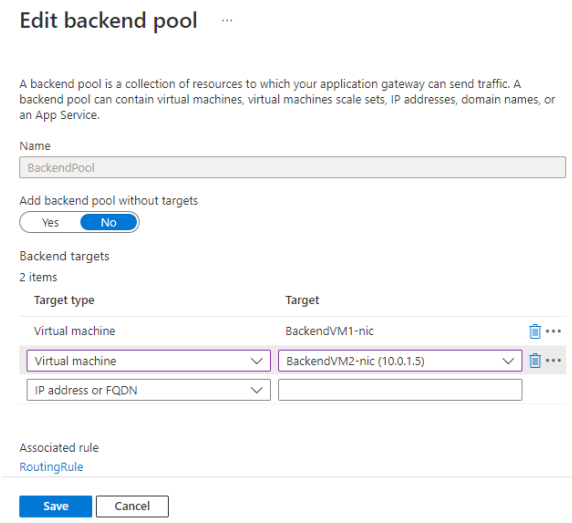
4. On the Edit backend pool page, under Backend targets, in Target type, select Virtual machine.



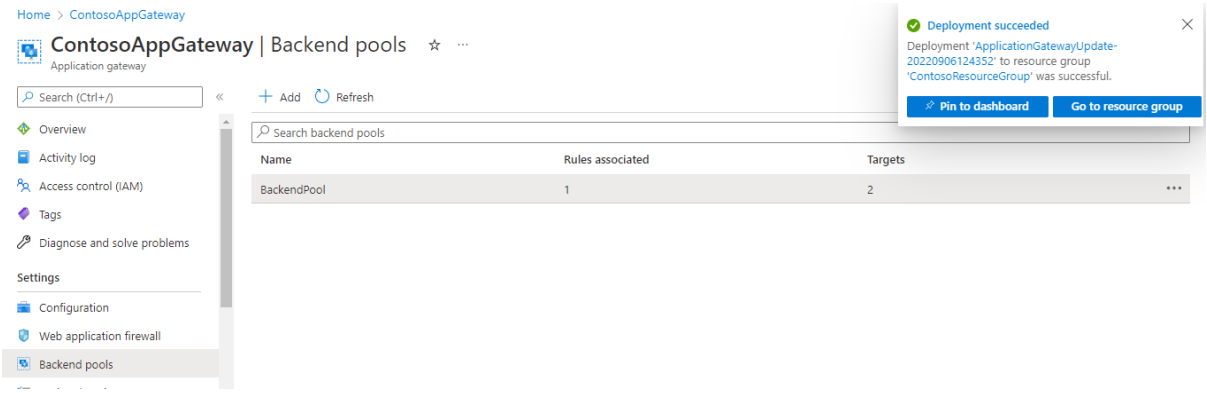
5. Under Target, select BackendVM1.



6. In Target type, select Virtual machine. + 7. Under Target, select BackendVM2.

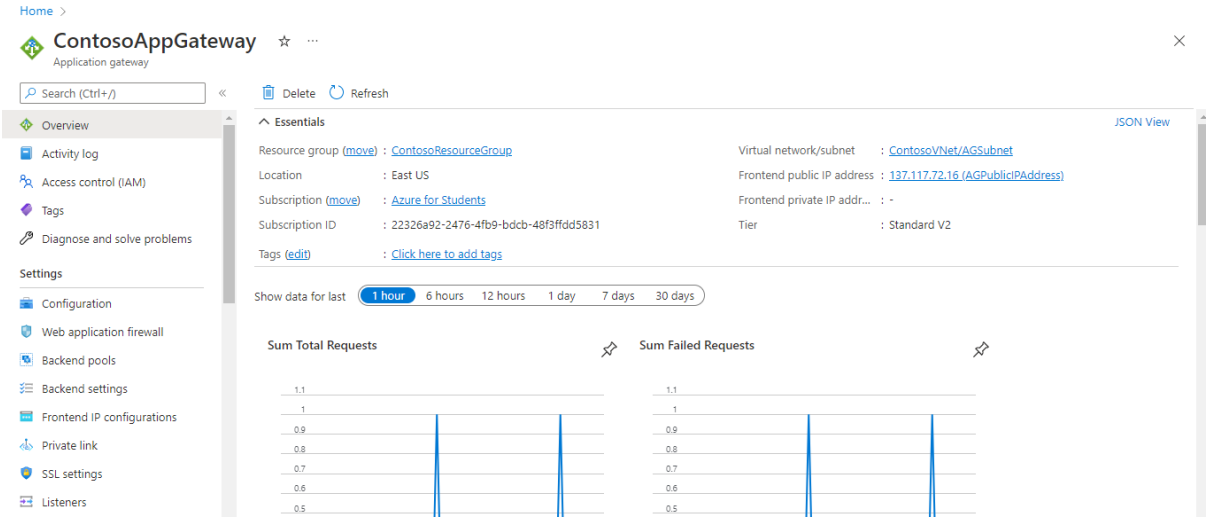


8.Select Save.



Task 4: Test the application gateway

1. Find the public IP address for the application gateway on its Overview page.



2. Copy the public IP address, and then paste it into the address bar of your browser to browse that IP address. + 3. Check the response. A valid response verifies that the application gateway was successfully created and can successfully connect with the backend.

BackendVM1

4. Refresh the browser multiple times and you should see connections to both BackendVM1 and BackendVM2.