**Course-End Project**

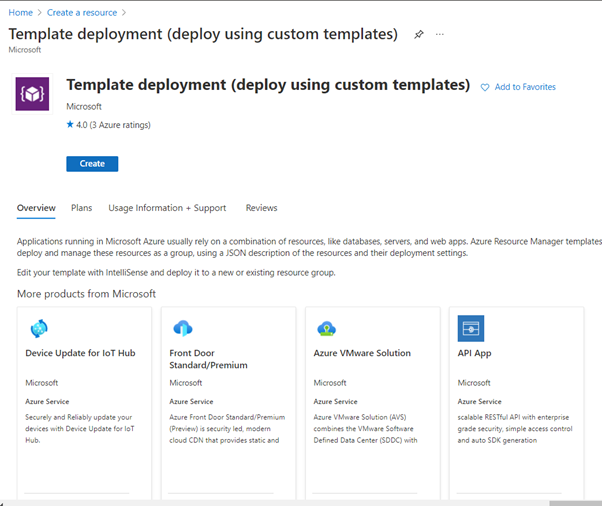
**Implementing High Availability for an Application**

**Steps to be followed:**

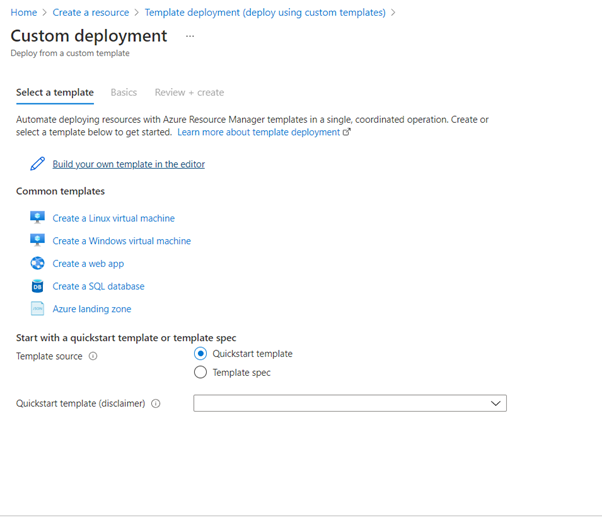
1. Creating 2 VMs using ARM template in region 1
2. Create a subnet for the bastion host and create a bastion
3. Install IIS on contoso-vm0 and contoso-vm1
4. Connect 2 VMs using a bastion
5. Download the source code
6. Create Azure SQL using an ARM template
7. Import database using the import option in Azure SQL in the portal
8. Change the connection string and copy the connection details on the web.config file

#### **Step 1: Creating 2 VMs using ARM template in region 1**

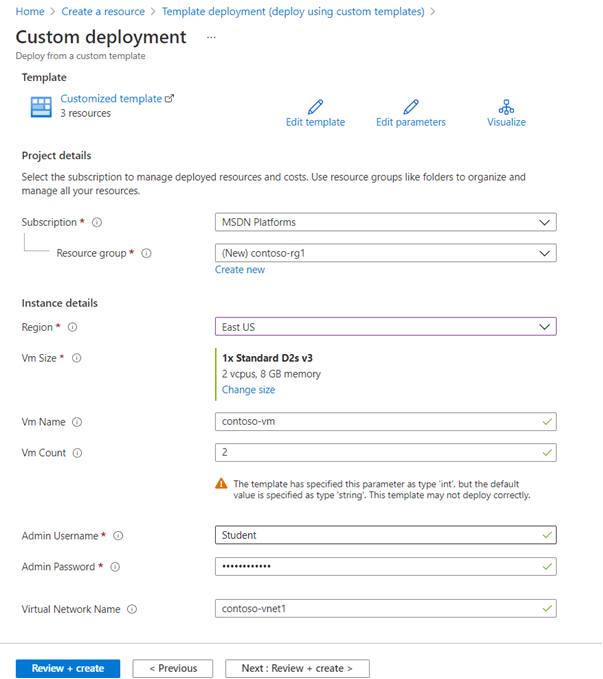
* 1. Create 2 VMs in the first VNET in region 1 using the ARM template



* 1. Click on **build your template**

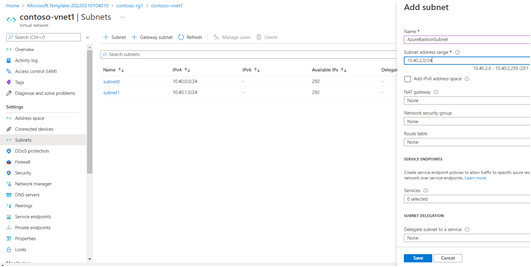


* 1. Provide all the details as shown below:

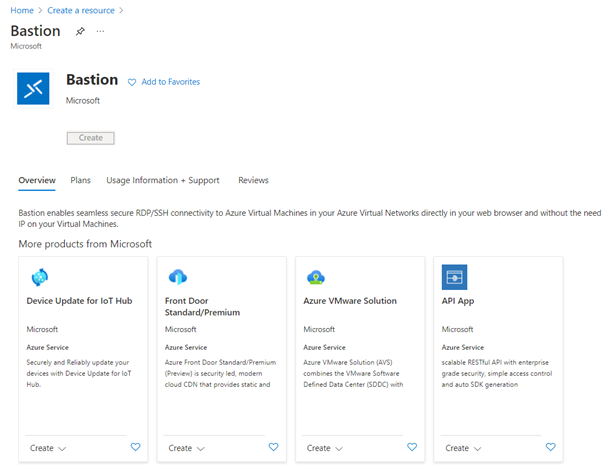


#### **Step 2: Create a subnet for the bastion host and create a bastion**

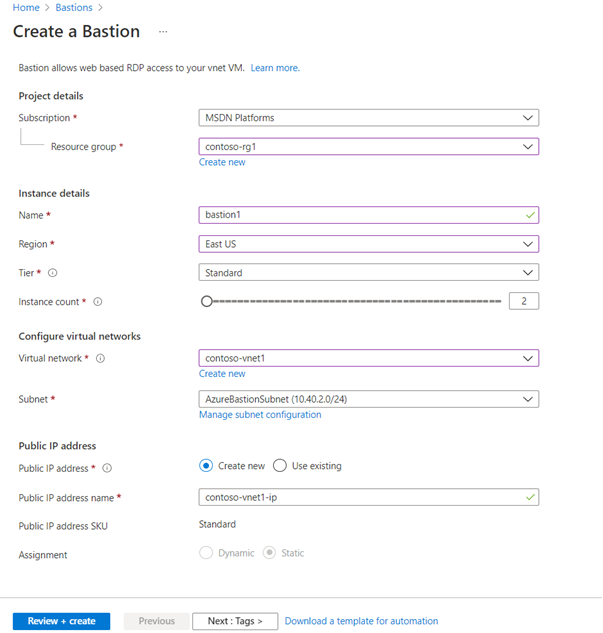
* 1. Go to Contoso-vnet1 and create a subnet



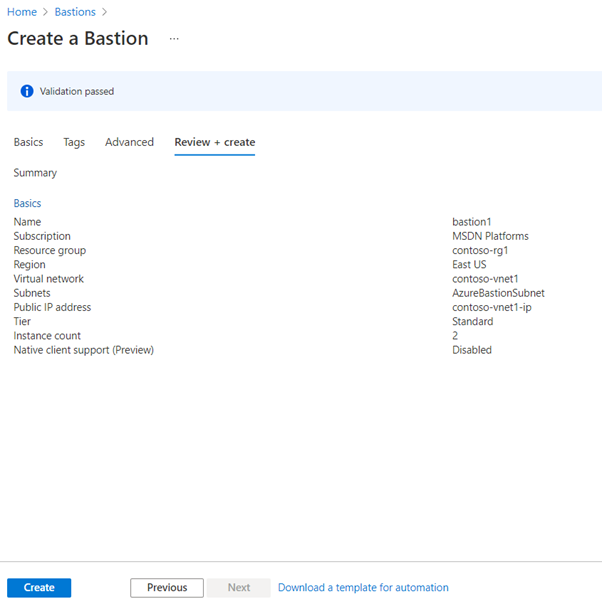
* 1. Search for bastion and click on **Create**



* 1. Provide all the details and make sure the previously created VNET and subnets are selected



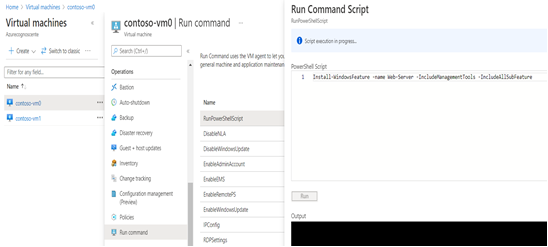
* 1. Click **Review + create** and then **Create**



#### **Step 3: Install IIS on contoso-vm0 and contoso-vm1**

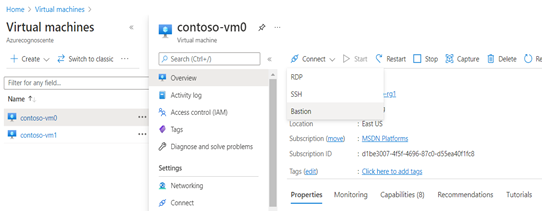
* 1. Go to the run command of each VM on the Azure portal and run the below commands:

Run *Install-WindowsFeature -name Web-Server -IncludeManagementTools -IncludeAllSubFeature*



#### **Step 4: Connect 2 VMs using a bastion**

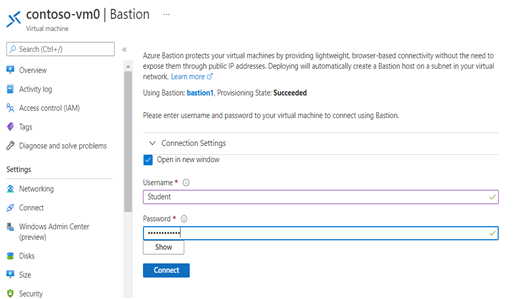
* 1. On contoso-vm0, select **Connect** using **Bastion** as below:



* 1. Enter the username and password given below and select **Connect**

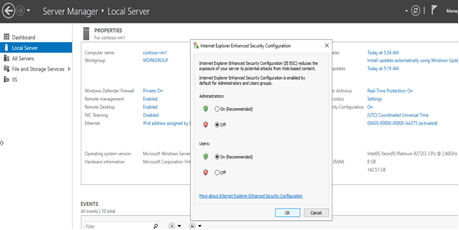
Username: Student

Password: Pa55w.rd1234

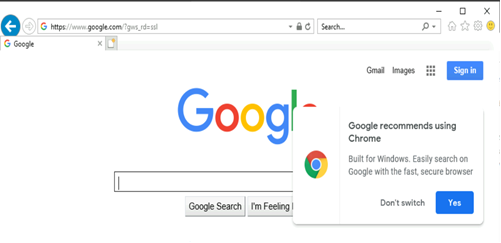


#### **Step 5: Download the source code**

* 1. You need to turn off IE enhanced security settings

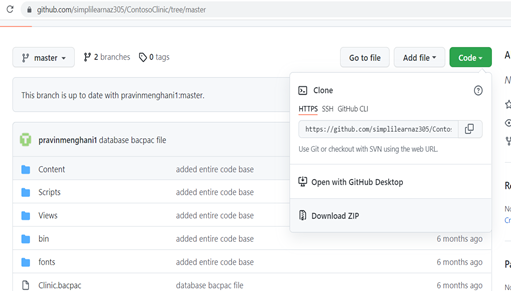


* 1. Now download the chrome browser

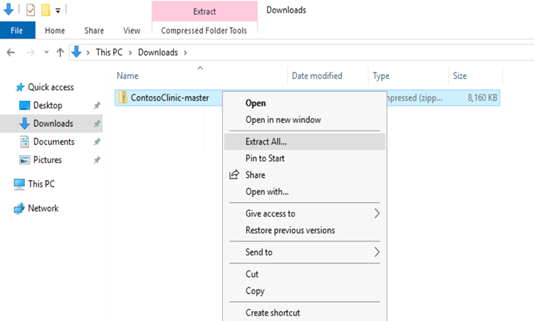


* 1. Now, in the chrome browser, go to the below URL and download the source code

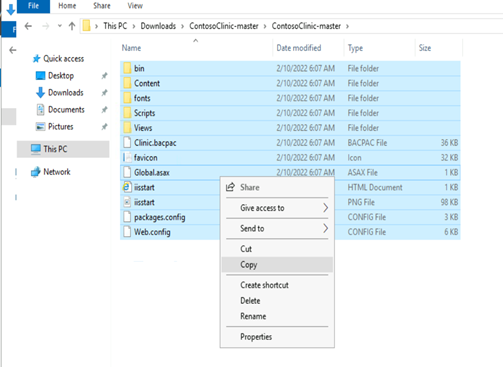
<https://github.com/simplilearnaz305/ContosoClinic/tree/master>

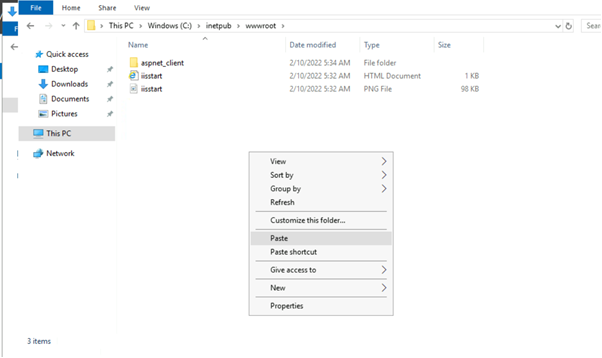


* 1. Repeat the steps for both VMs (contoso-vm0 and contoso-vm1)
  2. Extract the code and copy it to c:\inetpub\wwwroot\



5.6 Copy the code to c:\inetpub\wwwroot\

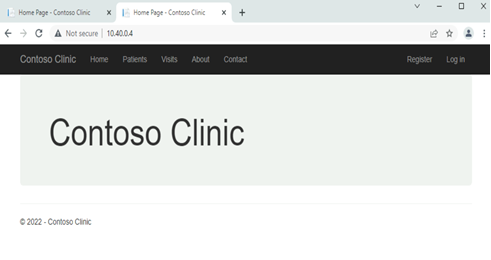




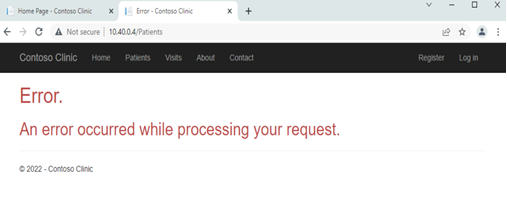
* 1. Now, try accessing the website in the browser within VM using the below URLs:

<http://10.40.0.4>

<http://10.40.1.4>



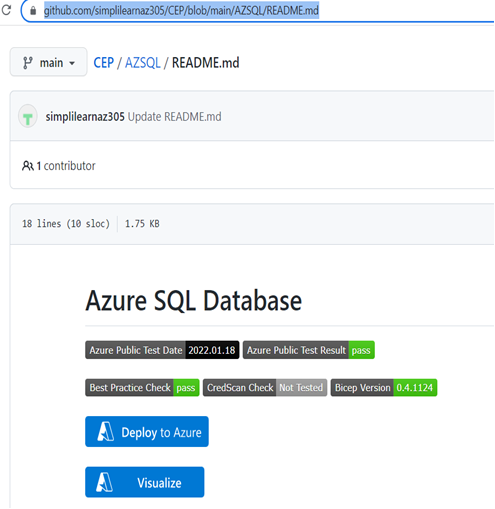
It should show as an error if you browse the patient’s page. This is because we don’t have any databases present there.



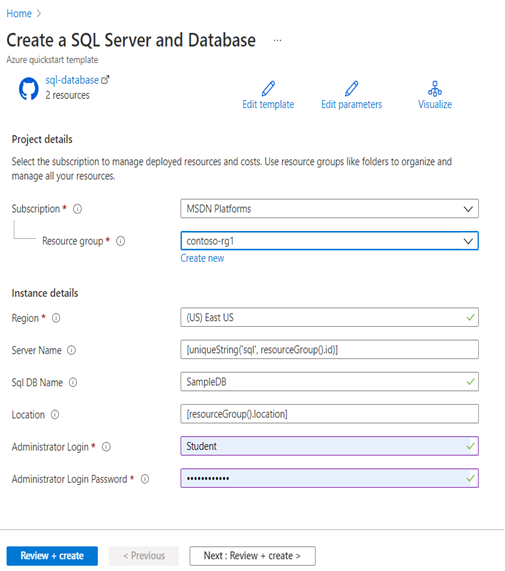
#### **Step 6: Create an Azure SQL using an ARM template**

* 1. Go to the below link and click **Deploy to Azure** to deploy the Azure SQL

<https://github.com/simplilearnaz305/CEP/blob/main/AZSQL/README.md>



* 1. Select the resource group name and leave all values default and click on **Create**

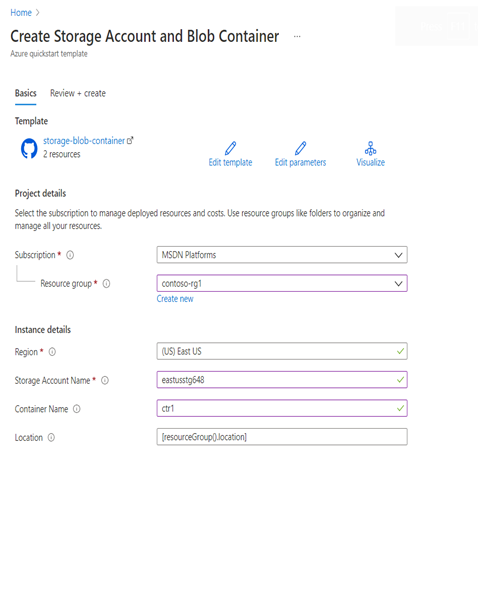


**Step 7: Create a storage account using the ARM template and upload the clinic.bacpac file in the container**

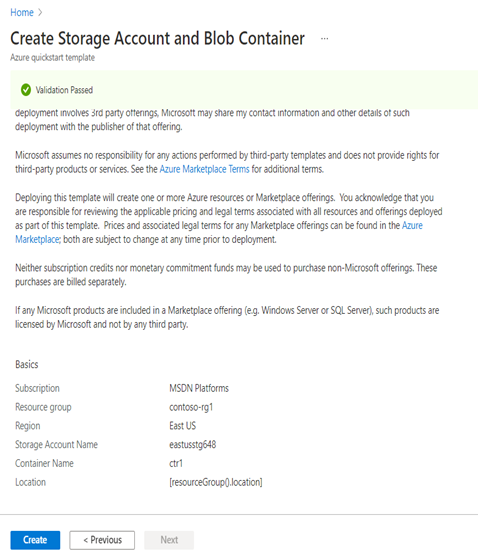
* 1. Use the below template to provision a storage account and a container

<https://github.com/simplilearnaz305/CEP/blob/main/Storage/README.md>

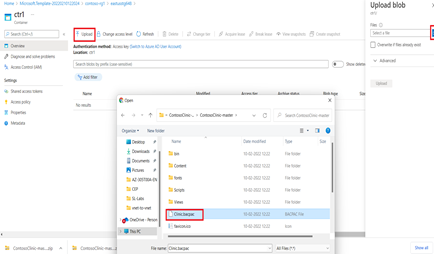
* 1. Give any uniquely available name and container name



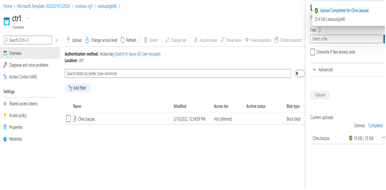
* 1. Select **Review** + **create** and then click on **Create**



* 1. Upload clinic.bacpac file in container ctr1

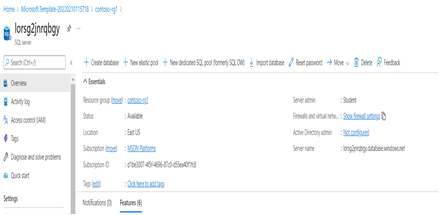


Your file will be uploaded now.

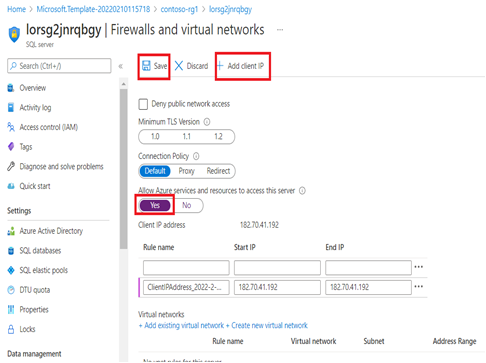


#### **Step 8: Import database using the import option in Azure SQL in the portal**

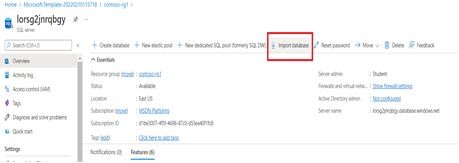
* 1. Before you can import the database, make sure the firewall settings of Azure SQL allow you to import. For that, click on show firewall settings of Azure SQL



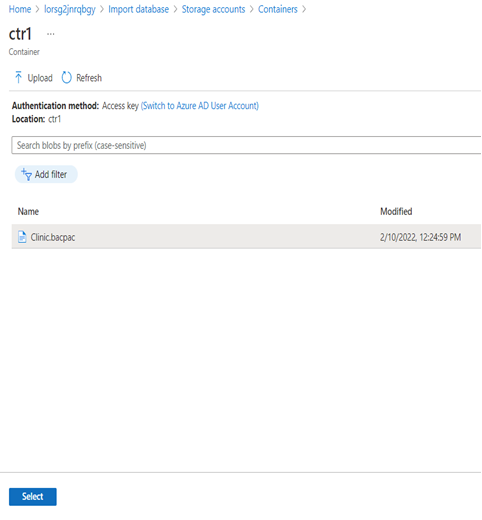
* 1. Select settings as below and click on **Save**



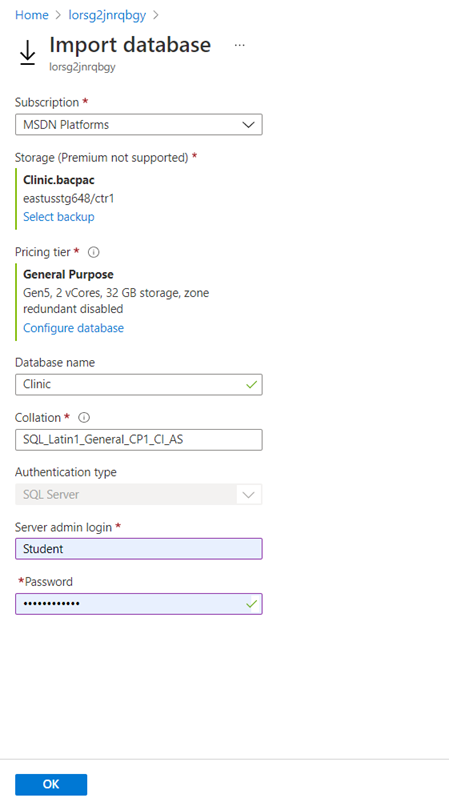
* 1. Click on **Import database**



* 1. Select storage account and container, and select the clinic.bacpac file



* 1. Leave all the things in default and click **ok**

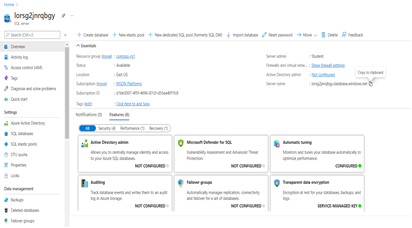


You will see the database import now.



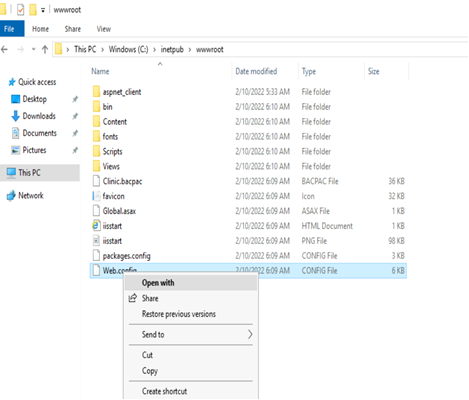
#### **Step 9: Change the connection string and copy the connection details in the web.config file**

* 1. Copy the server’s name from the Azure SQL overview page as below:



* 1. Now within each VM, go to the below path and change the connection string

C:\inetpub\wwwroot\web.config



* 1. Change connection strings on both VMs



* 1. Test the application using the below URLs:

<http://10.40.0.4>

<http://10.40.1.4>

Also, visit the patient’s page to see the data.

