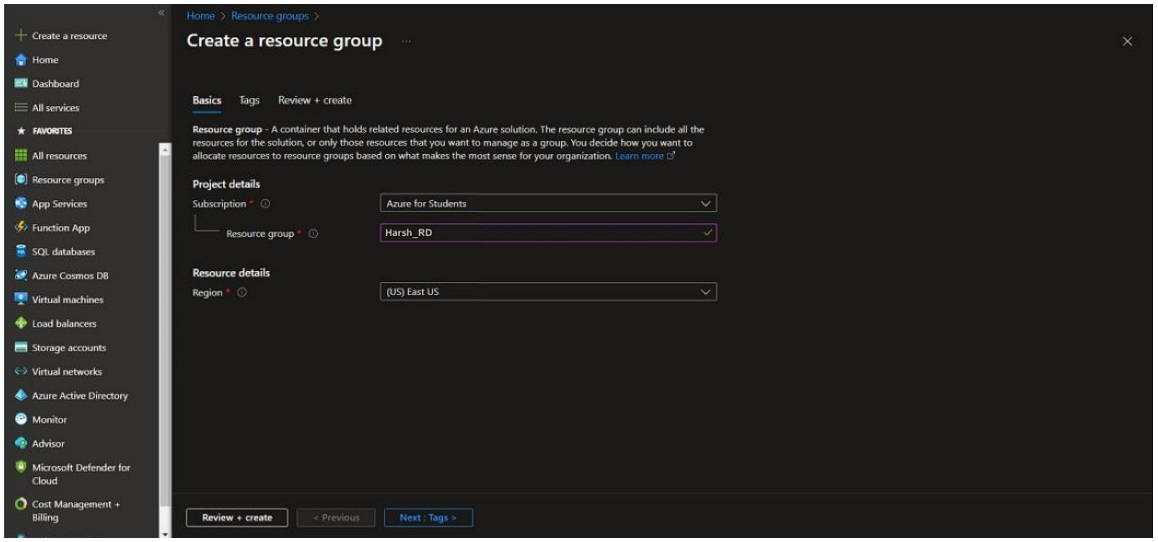
DevOps Project

Celebal Summer Internship'24
Name – Harsh Kiran Kore
Domain - DevOps
Batch – 21st May to 20th July 2024
CSI ID - CT_CSI_DV_2094

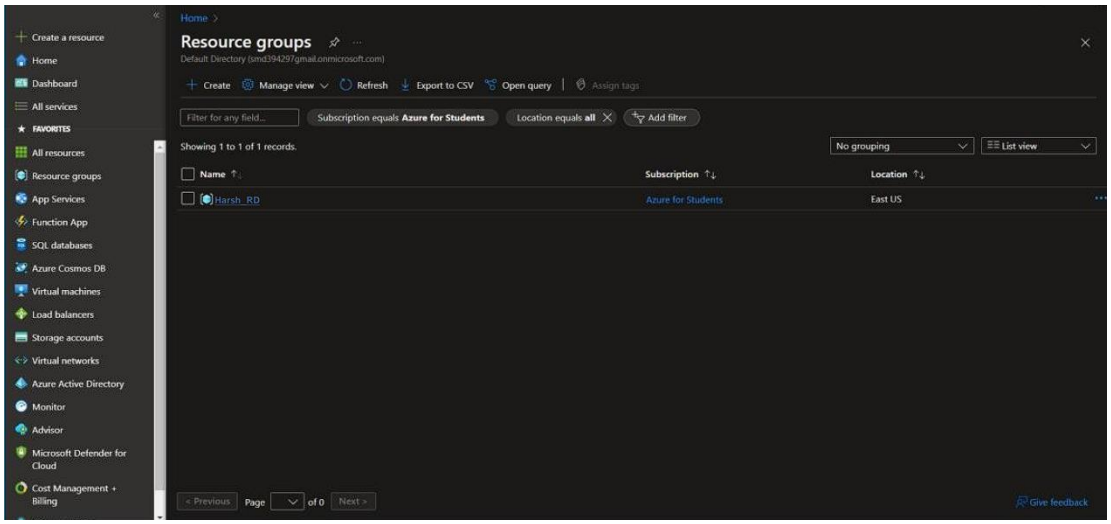
1. Load balancing using Azure Load balancer.

The following steps are given below: -

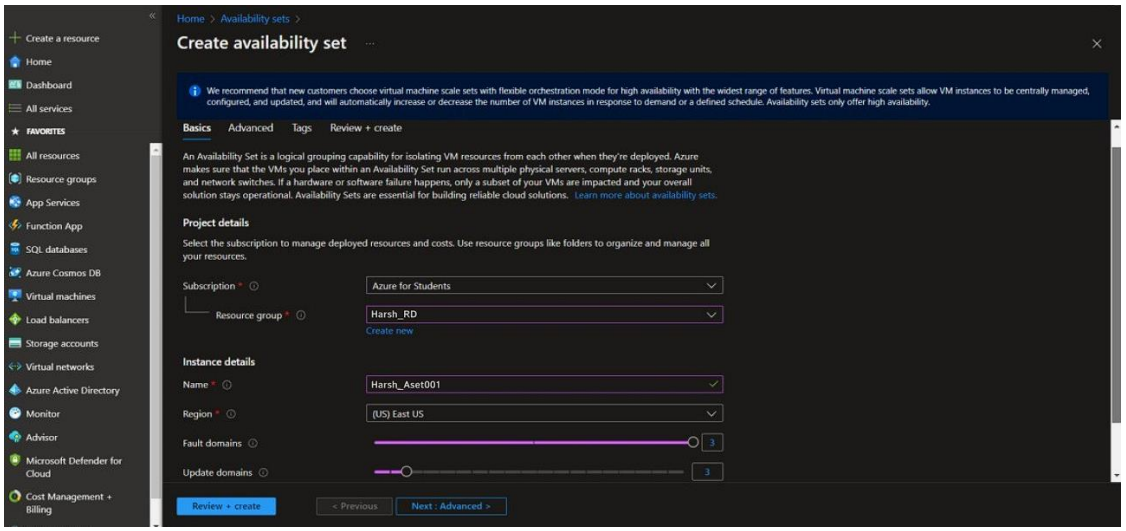
- Step 1 - Go to Microsoft azure portal then Azure home page will appear.
- Step 2 - Click on Resource groups to create a Resource group.
- Step 3 - Fill the Projects details and Resource details in Basics.



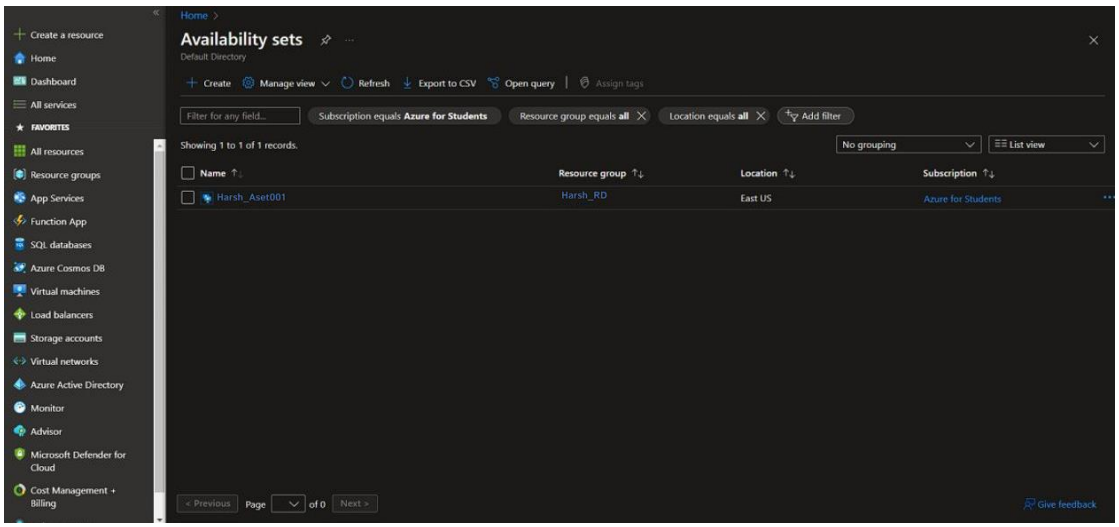
- Step 4 - Click on Review + create, after the Validation is passed click oncreate-to-create Resource group (Harsh_RD)



- Step 5 - Go to Availability sets to create one Availability sets.
- Step 6 - Fill the Projects details and Instance details in Basics.



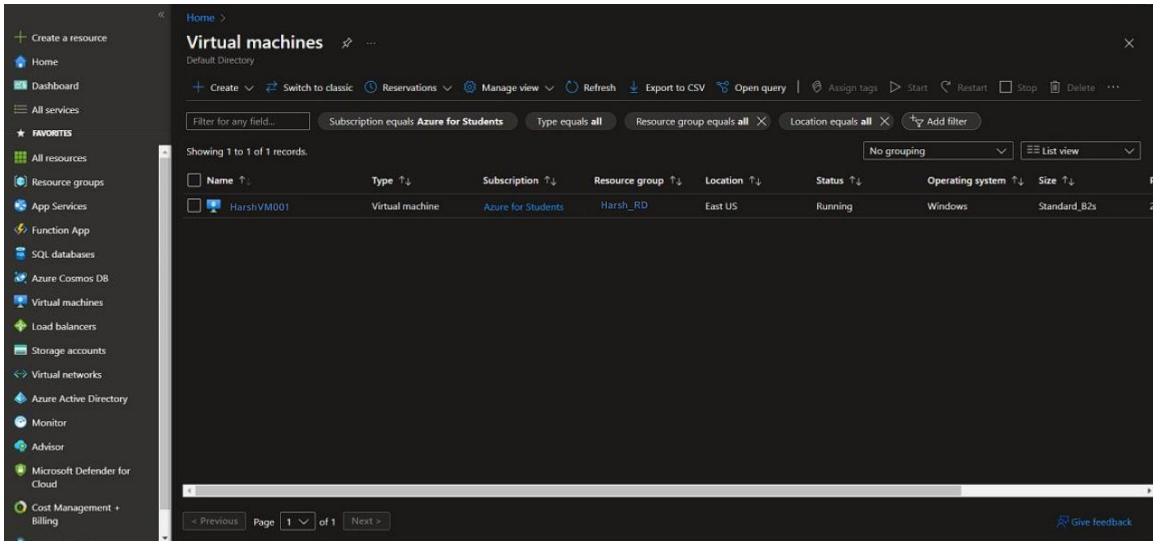
- Step 7 - Click on Review + create, after the Validation is passed click oncreate-to-create availability set (Harsh_Aset001)



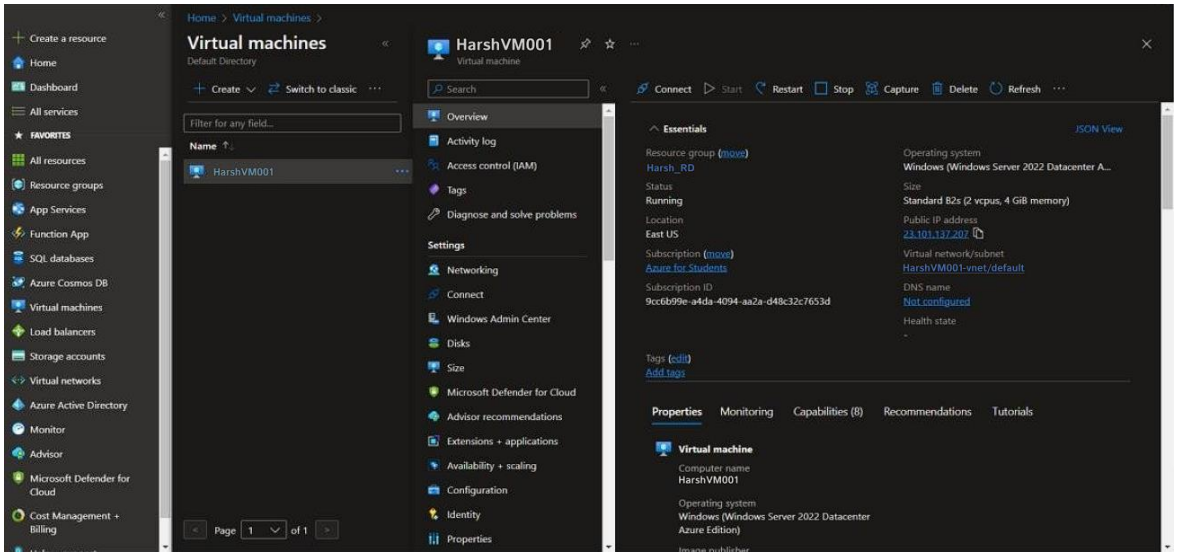
- Step 8 - Go to Virtual machine and click on create-to-create virtual machine.

- Step 9 - Fill the project details, Instance details, Administrator account and Inbound port rules in Basics.

- Step 10 - Click on Review + create, after validation is passed click oncreate-to-create virtual machine, after deployment gets completed, the virtual machine is created (HarshVM001).



- Step 11 - Click on first virtual machine to see details of first virtual machine.



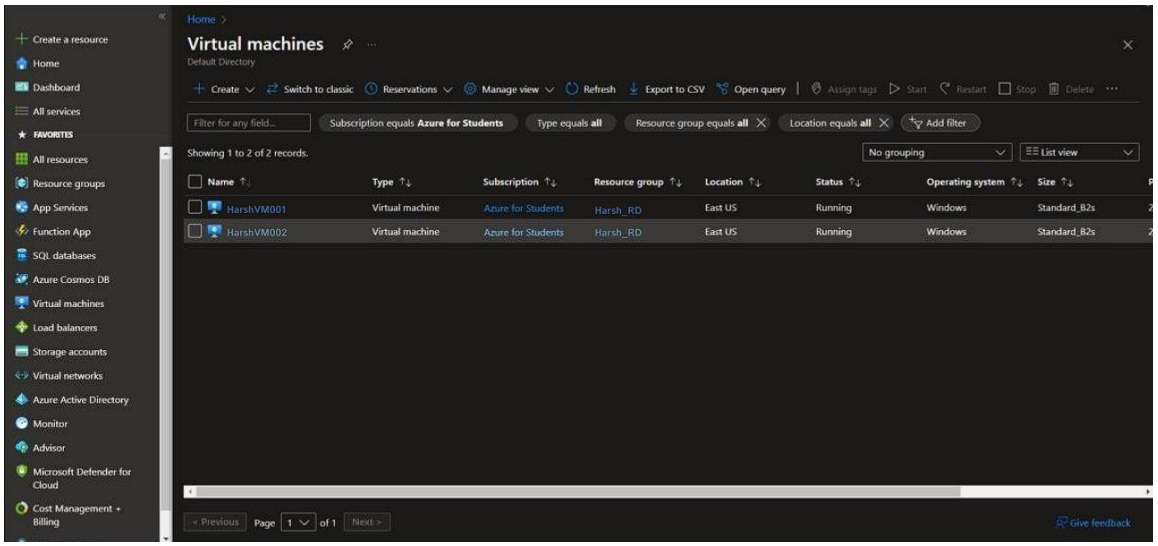
- Step 12 - Copy the Public IP address (23.101.137.207) of the first virtual machine.

- Step 13 - Open Remote Desktop Connection in your system and paste the copied public IP address then click on connect then enter the username and password to proceed.

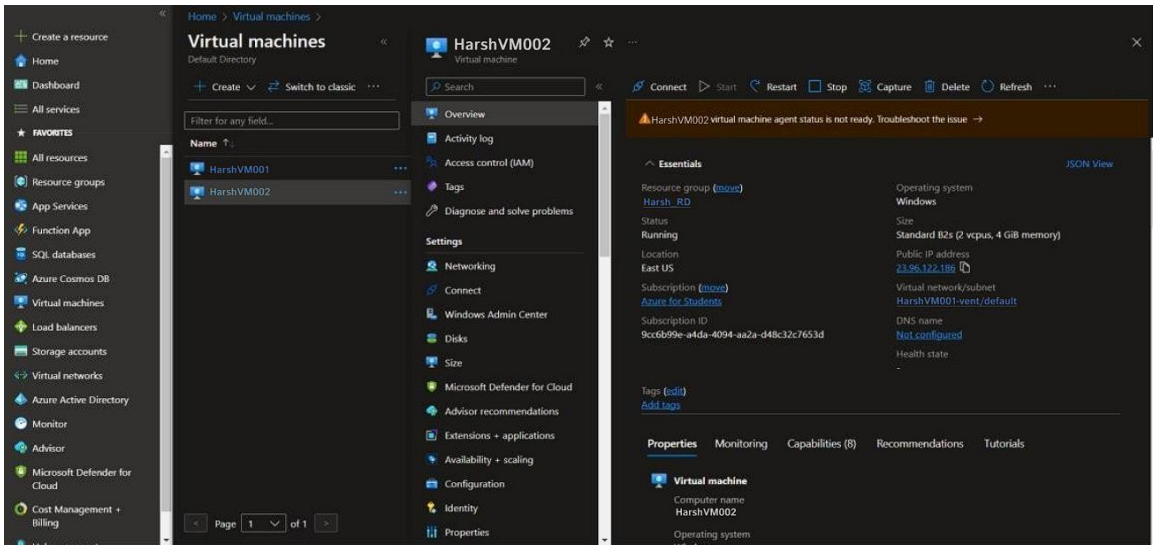
- Step 14 - The virtual machine will start with that IP address then Open Server manager.
- Step 15 - Click on Add roles and features to install IIS server.
- Step 16 - Build a custom page, write “Hi, This is HarshVM001” on that page.
- Step 17 - Paste the IP address on the new tab of your browser, then we can see the custom page will appear.

Hi, This is HarshVM001

- Step 18 - Create one more virtual machine.
- Step 19 - Fill the project details, Instance details, Administrator account and Inbound port rules in Basics.
- Step 20 - Click on Review + create, after validation is passed click oncreate-to-create virtual machine, after deployment gets completed, the virtual machine is created (HarshVM002).

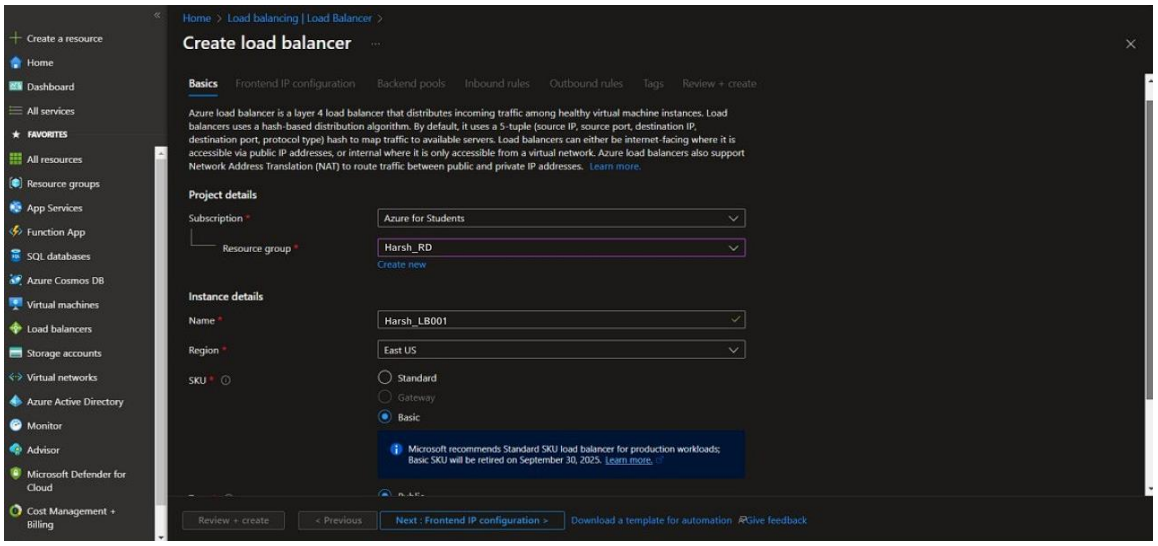


- Step 21 - Click on second virtual machine to see details of second virtual machine.

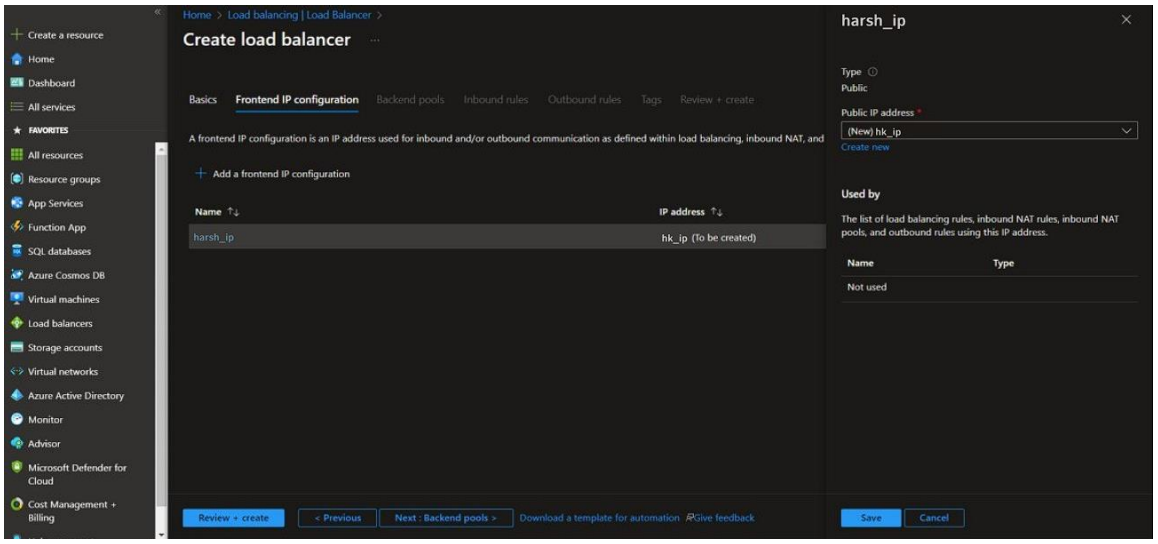


- Step 22 - Copy the Public IP address (23.96.122.186) of the second virtual machine.
- Step 23 - Open Remote Desktop Connection in your system and paste the copied public IP address then click on connect then enter the username and password to proceed.
- Step 24 - The virtual machine will start with that IP address then Open Server manager.
- Step 25 - Click on Add roles and features to install IIS server.
- Step 26 - Build a custom page, write “Hi, This is HarshVM002” on that page.
- Step 27 - Paste the IP address on the new tab of your browser, then we can see the custom page will appear.

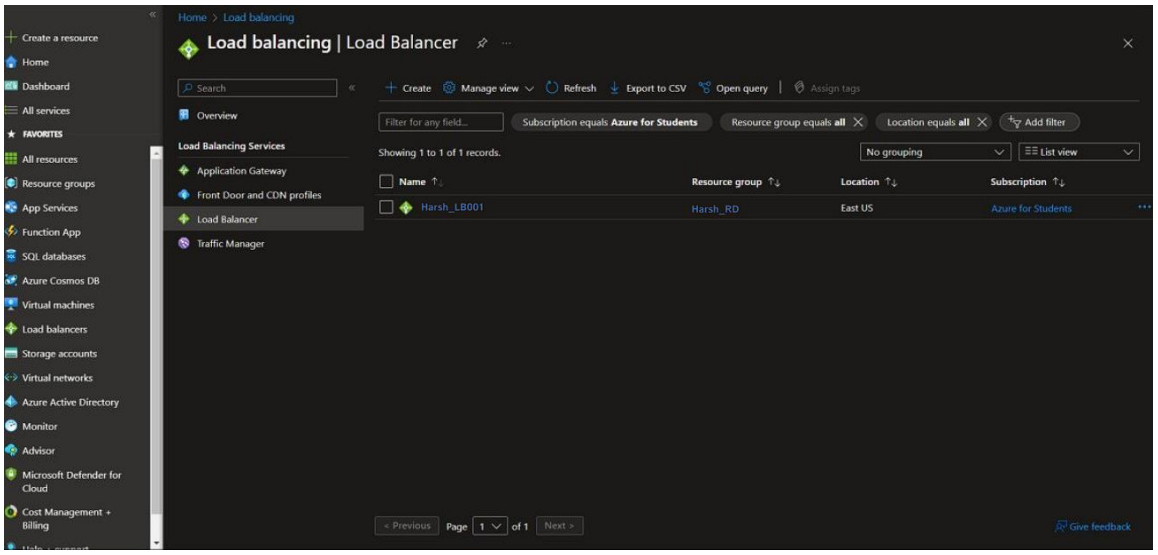
- Step 28 - Go to Load Balancer to Create Load balancer (Harsh_LB001).
- Step 29 - Fill the Basics and click on next.



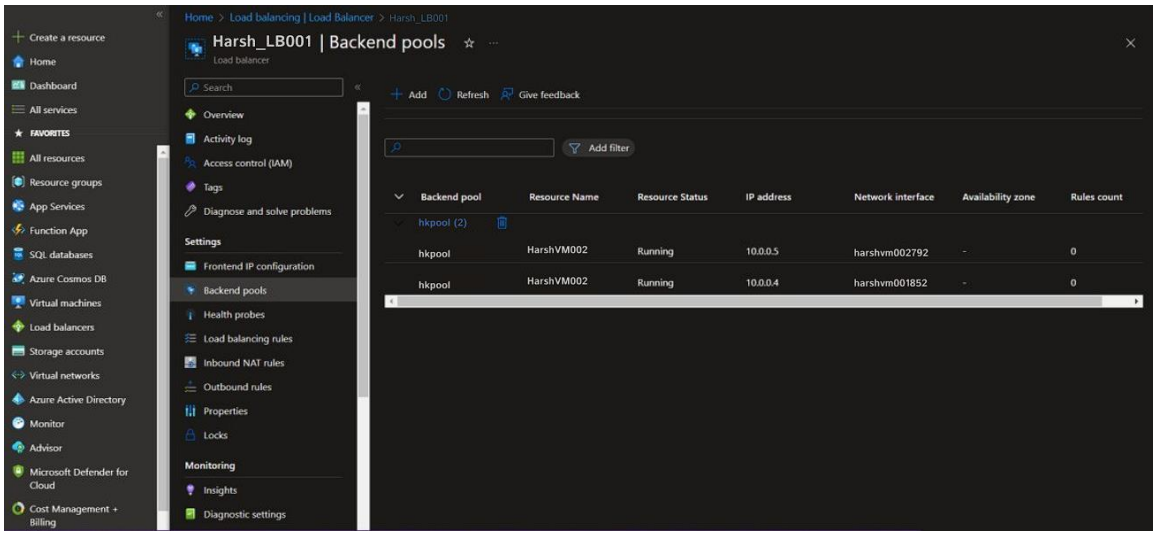
- Step 30 - Add Frontend IP Configuration and click on Review + create.



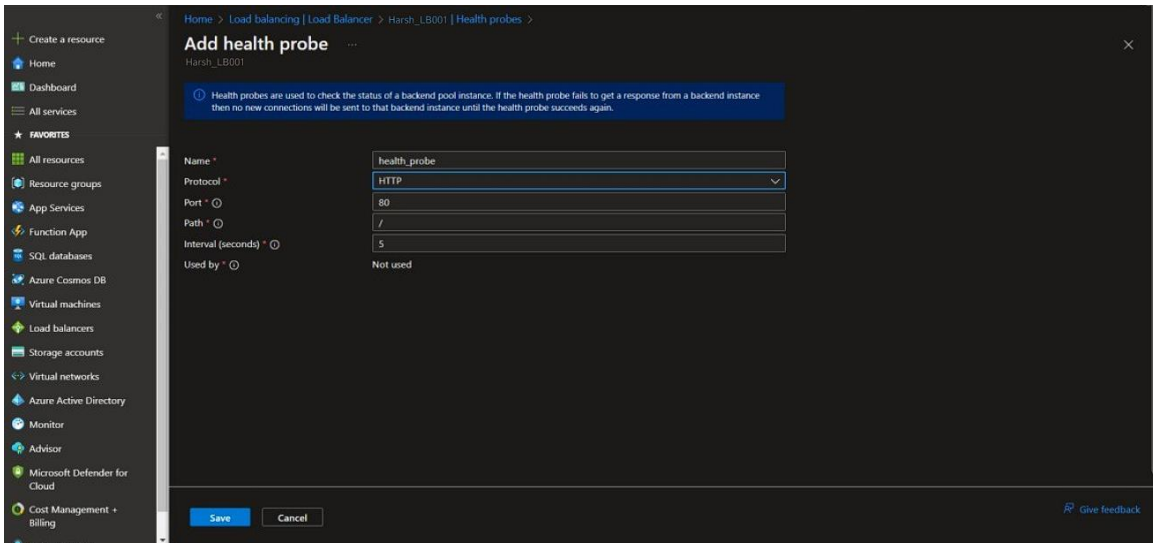
- Step 31 - Load balancer will be created (Harsh_LB001)



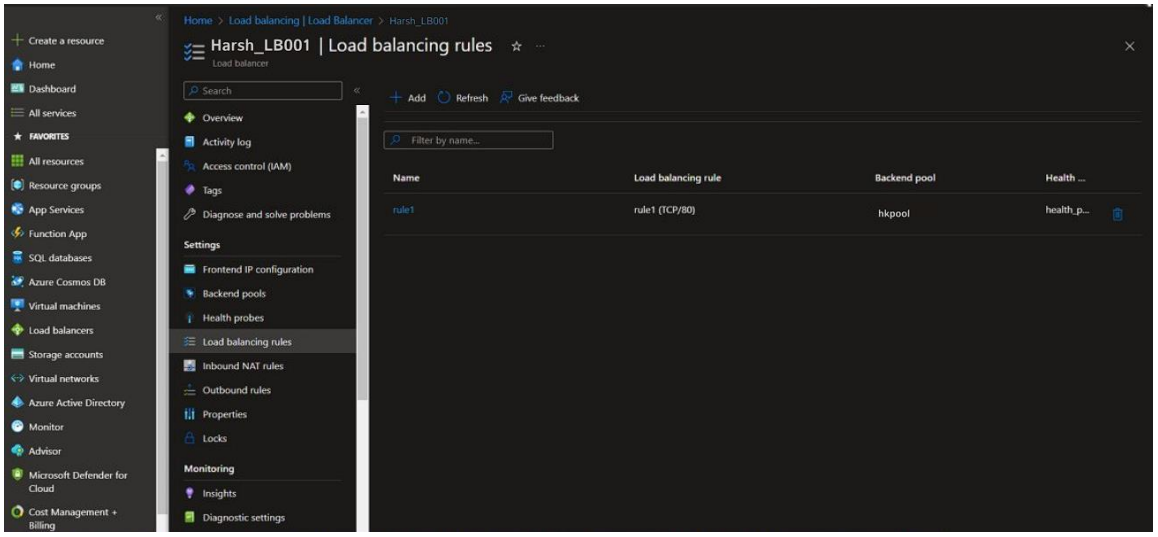
- Step 32 - Click on first load balancer and add Backend pools and select that two virtual machine.



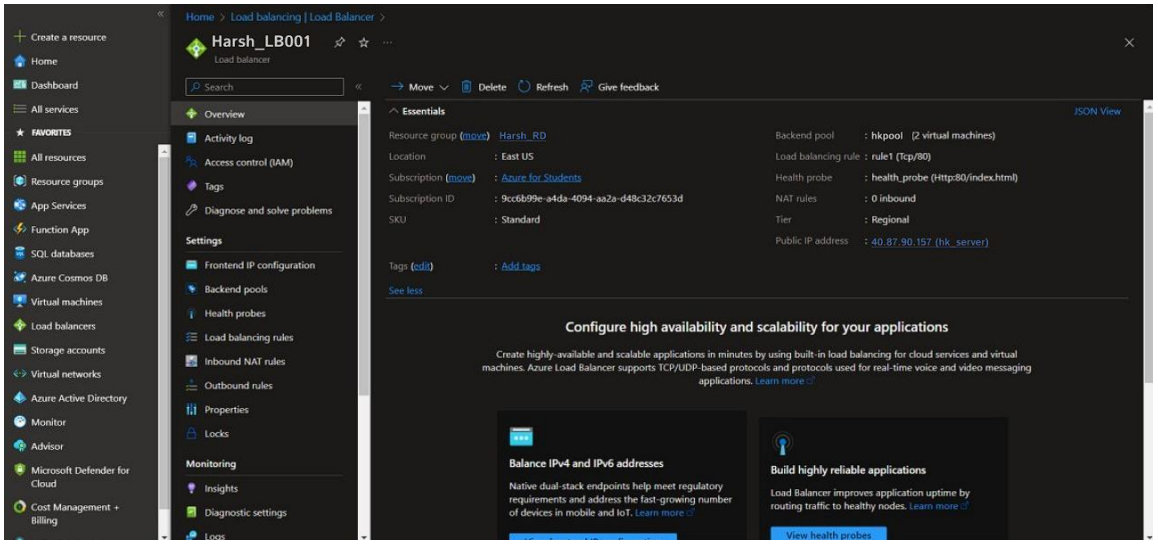
- Step 33 - Add Health Probes.



- Step 34 - Add Load balancing rules (rule1).



- Step 35 - Click on Overview and copy the public IP address of Load balancer (40.87.90.157).



- Step 36 - Paste the load balancer public IP address in new tab of your browser, we can see the first page (Hi, This is HarshVM001) then after reloading the page we can see the second page (Hi, This is HarshVM002).

Hi, This is HarshVM001

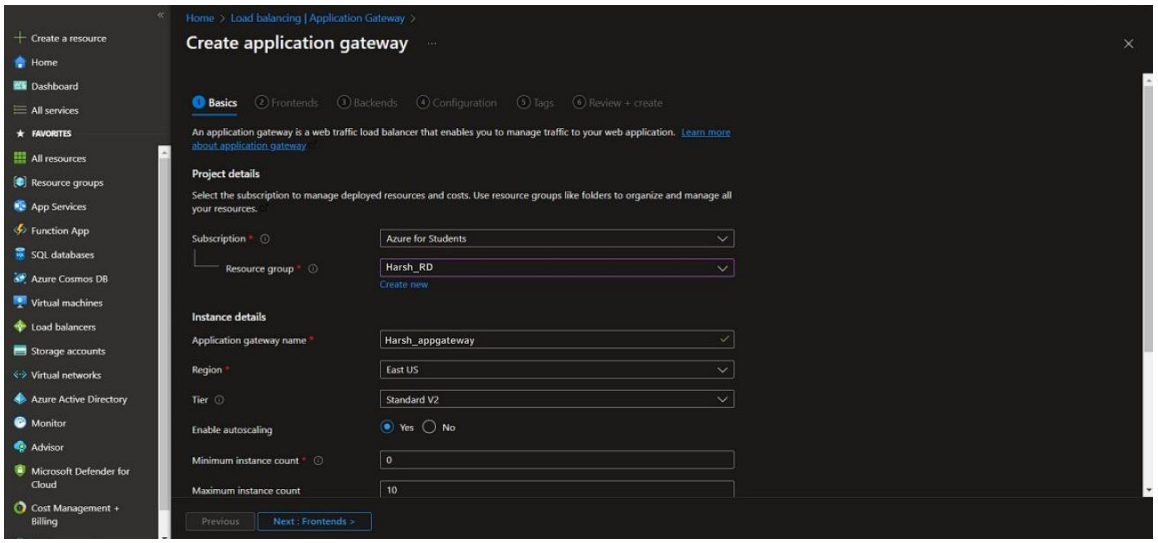
Hi, This is HarshVM002

2. Application Gateway

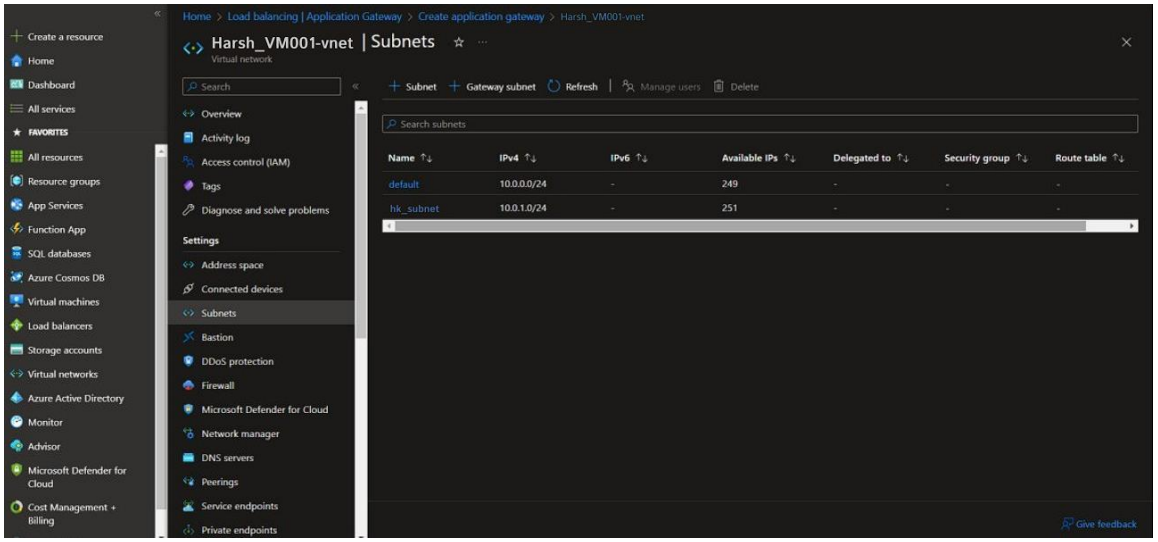
The following steps are given below: -

- Step 1 - Go to Application gateway and click on create-to-create application gateway.

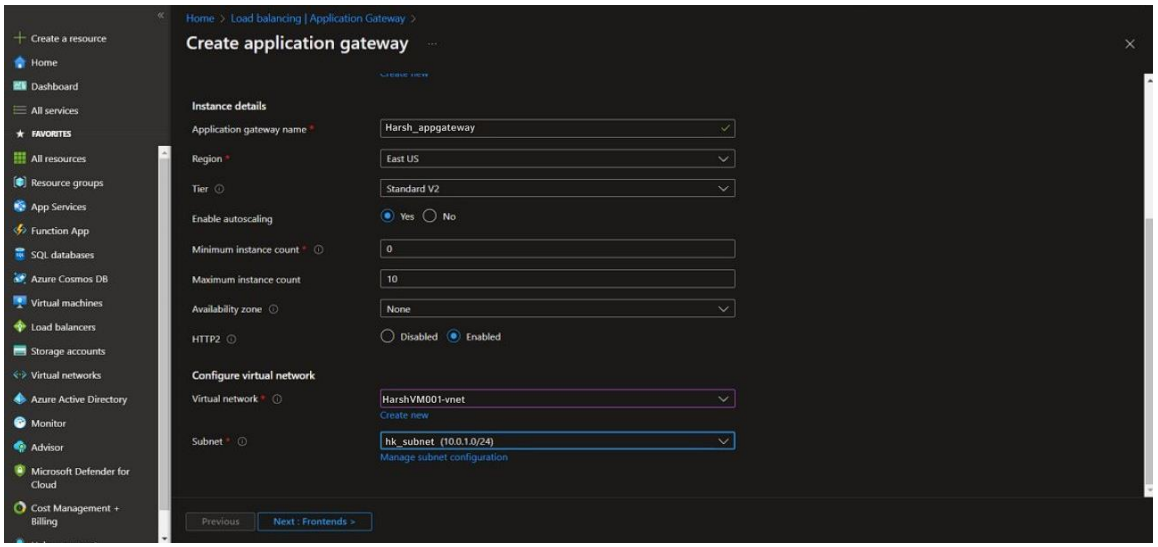
- Step 2 - Fill the Basics.



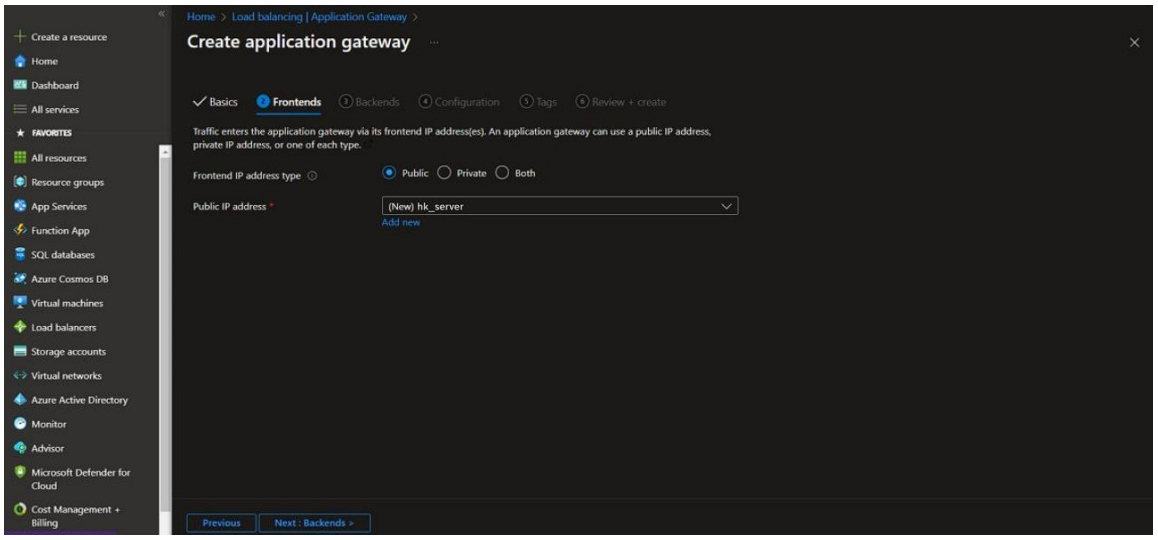
- Step 3 - Add Subnet from the subnet option in the basics (hk_subnet).



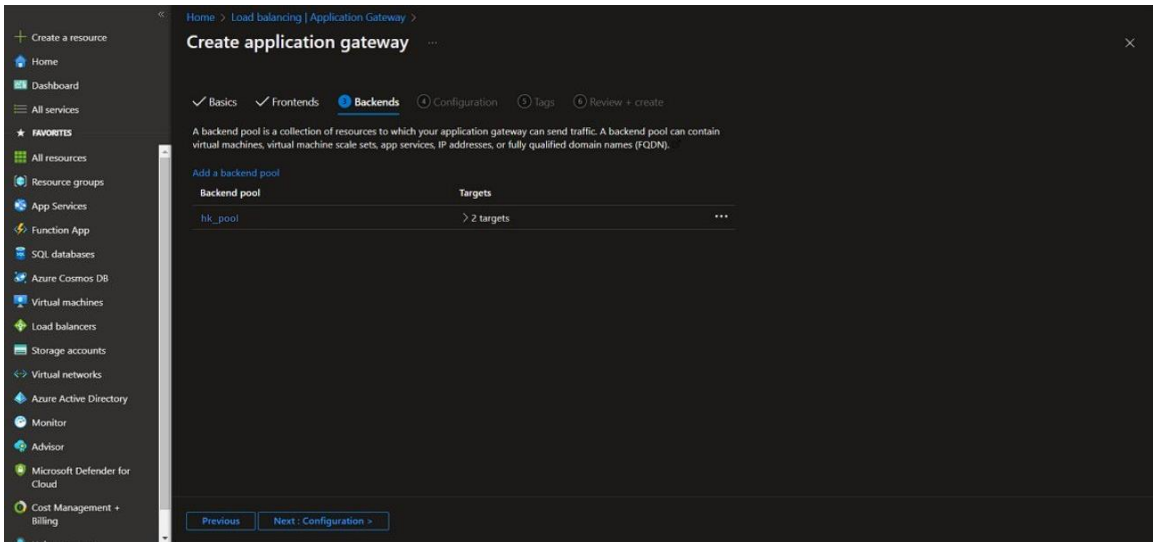
- Step 4 - Select that subnet (hk_subnet) in the subnet option in the basics and click on next.



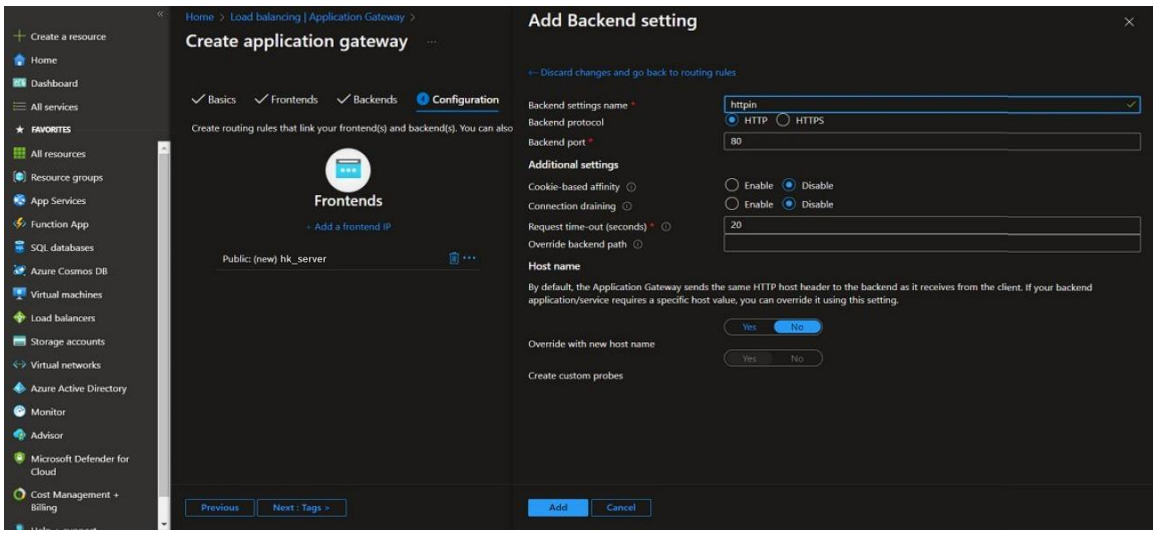
- Step 5 - Fill the Frontend and click on next.

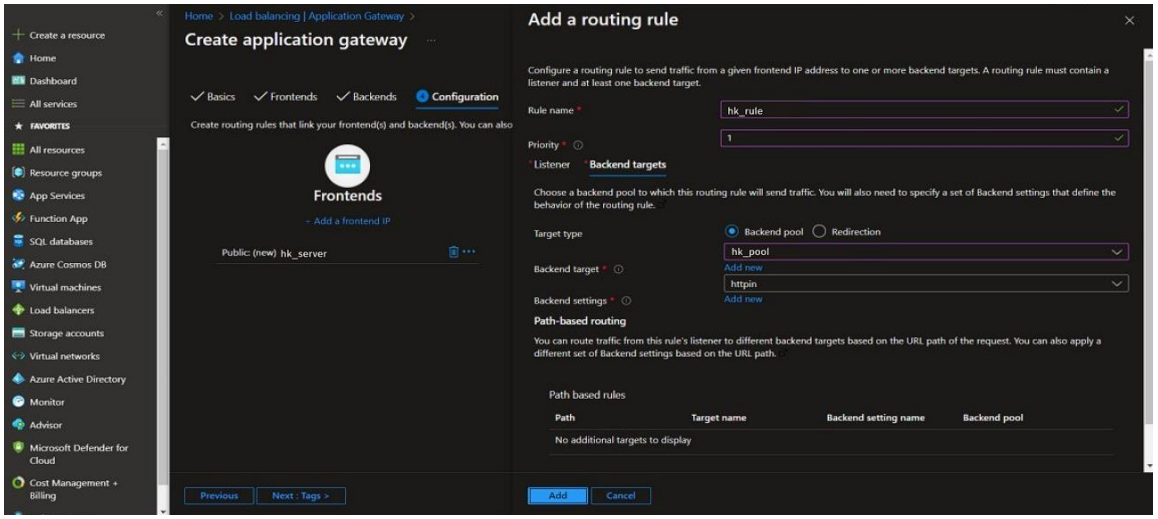


- Step 6 - Select the Backend and click on next.

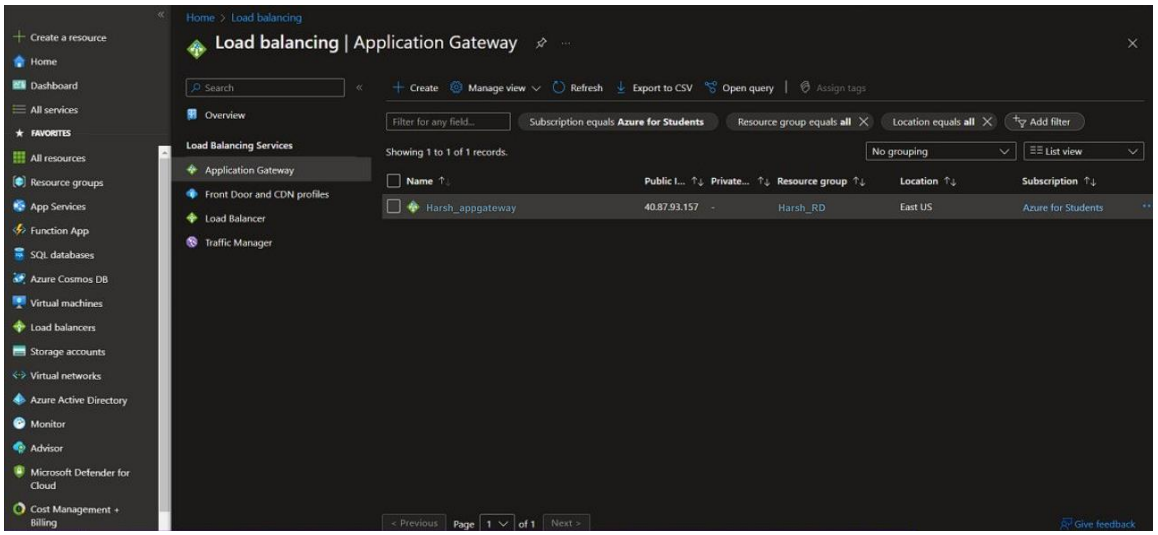


- Step 7 - Add Backend setting and add a routing rule in configuration and click on next.

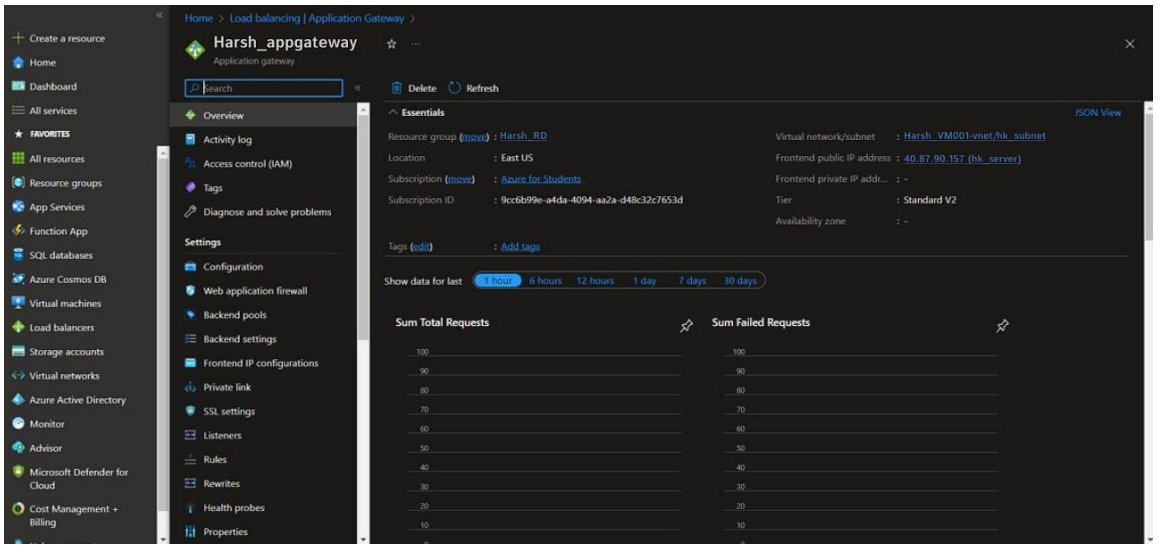




- Step 8 - After the validation is passed then click on create, after the deployment gets completed the application gateway will be created (Harsh_appgateway).



- Step 9 - Click on that application gateway and copy the frontend IP address (40.87.90.157).



- Step 10 - Paste that copied IP address in the new tab of your browser, we can see the page of first virtual machine (Hi, This is HarshVM001).

Hi, This is HarshVM001

- Step 11 - Reload the page then we can see the page of second virtual machine (Hi, This is HarshVM002).

Hi, This is HarshVM002

THE END