GUVI
tech deserves you

MAIN PROJECT - 2
CLOUD COMPUTING - AZURE

PROJECT - 2:

OBJECTIVE OF THE PROJECT:

Have to create a web application which is highly available in multiple regions, secure from web attacks, load balanced across regions using application gateway.

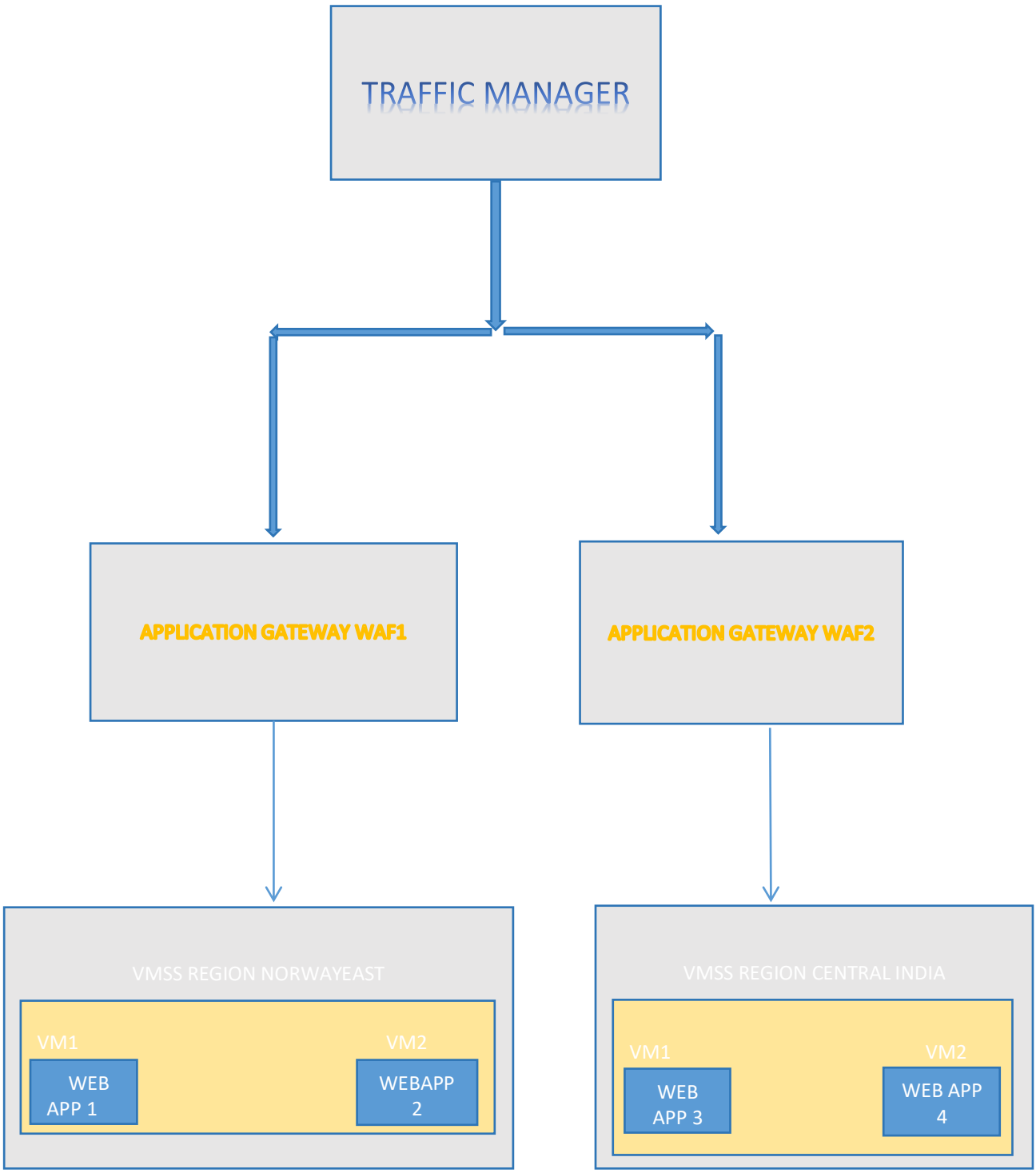
Architecture overview:

1. To achieve the first step of availability of web application in multiple regions we have to create two virtual machines in different region.
2. I have created a virtual machine 1 in Norway east location and created a virtual machine 2 in central India location with same resource group.
3. After deploying the VMs, I installed Web app IIS (Internet Information Services) on both the VMs to serve web applications
4. I have edited the code regarding to the vm and its executed.
5. I have created a Application Gateway 1 in norway east and connected it to VM1, allowing it to manage incoming traffic and provide load balancing.
6. I also created Application Gateway 2 in central India and connected it to VM2, ensuring proper traffic management for this region.
7. After configuring the application gateways, I performed a health check on both VMs to ensure they were operational and that the application gateways were routing traffic correctly.
8. Then I created a Traffic Manager to enable global load balancing across multiple regions.
9. I linked the IP addresses of Application Gateway 1 and Application Gateway 2 as endpoints in the Traffic Manager.
10. Before linking the endpoints, I configured a DNS to associate with the IP addresses of the application gateways, ensuring that user requests are correctly routed.

11. Finally, I tested the entire setup by simulating traffic through the Traffic Manager to ensure that the requests were properly directed to the appropriate application gateway and Web application, confirming that the configuration was functioning as expected.

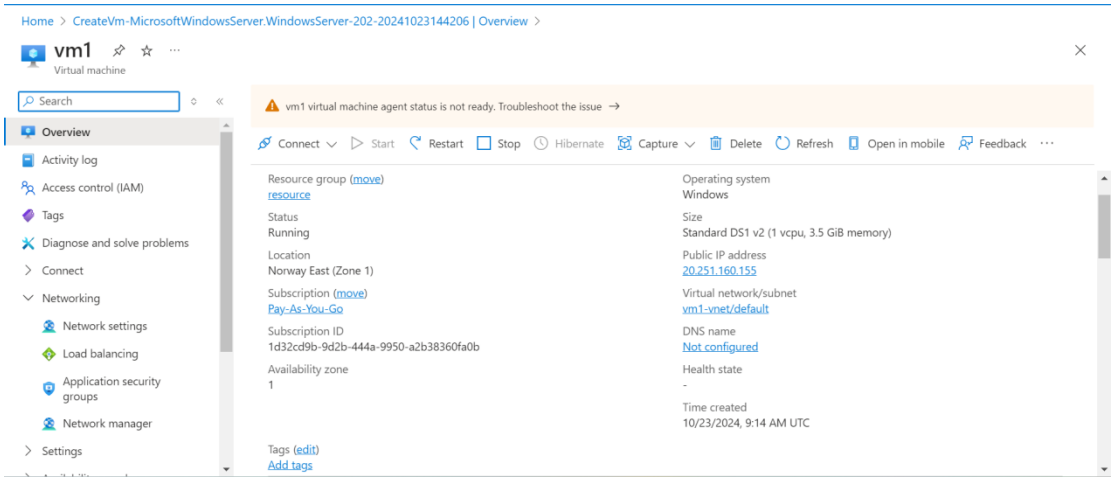
12.On priority basis, if one vm is shutdown it will auto allocate to the other VM and make the DNS to available all the time.

PROJECT ARCHITECTURE:

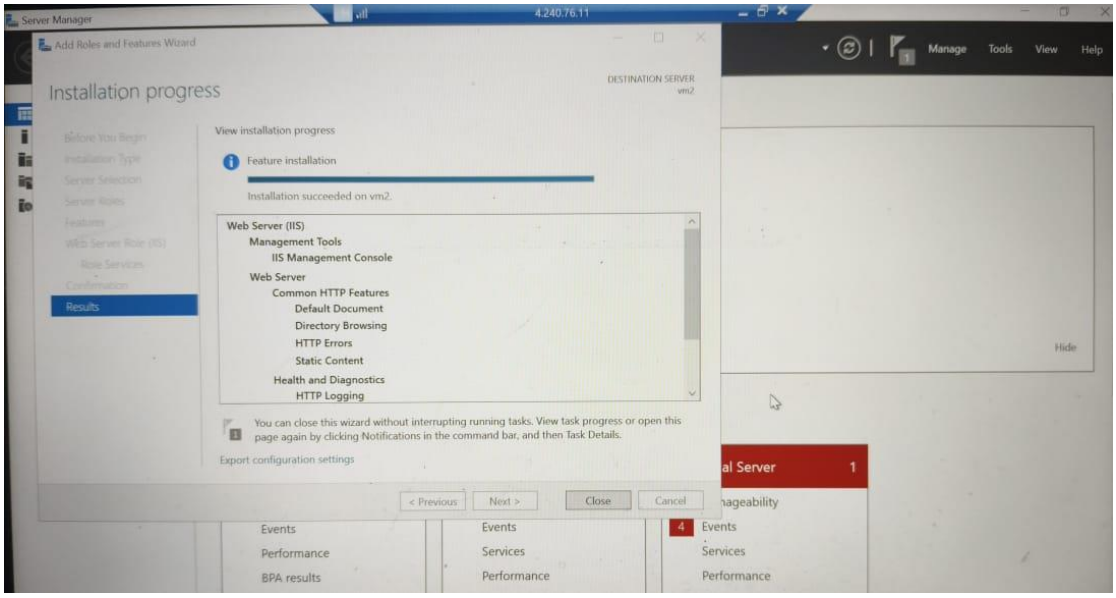


STEPS:

1. Created a VM in two different locations (norway east, central india).

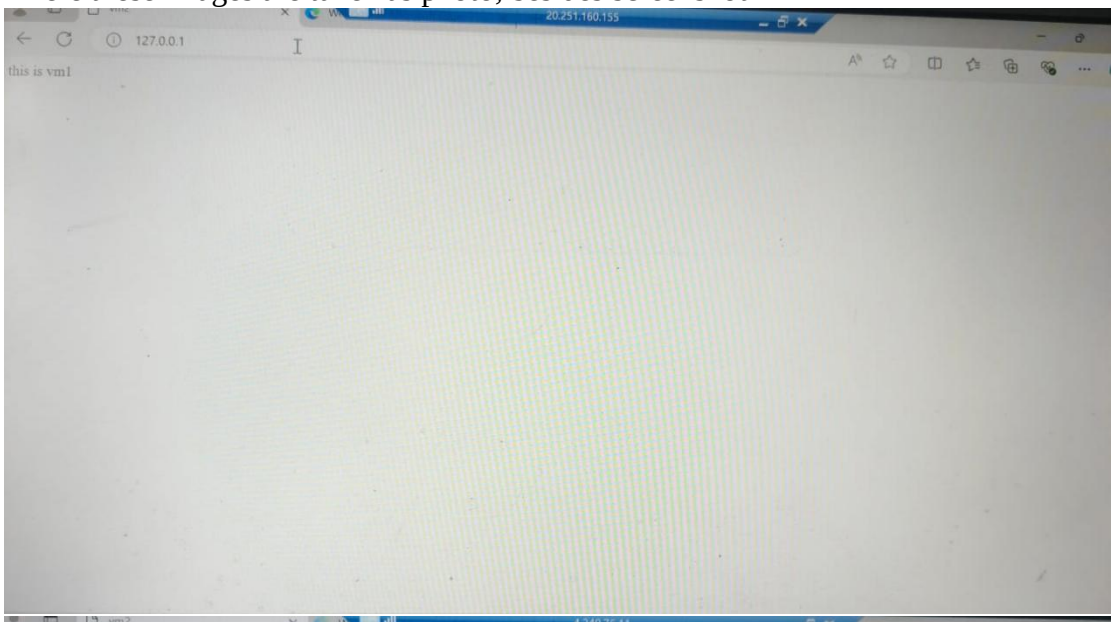


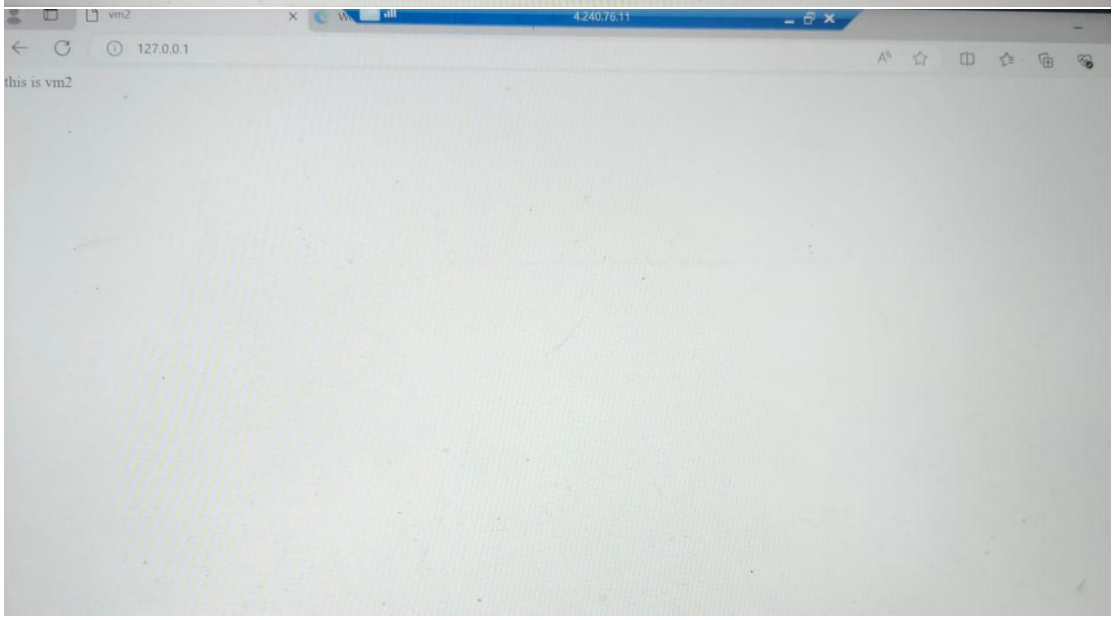
2. Installing iis in both the VMS.



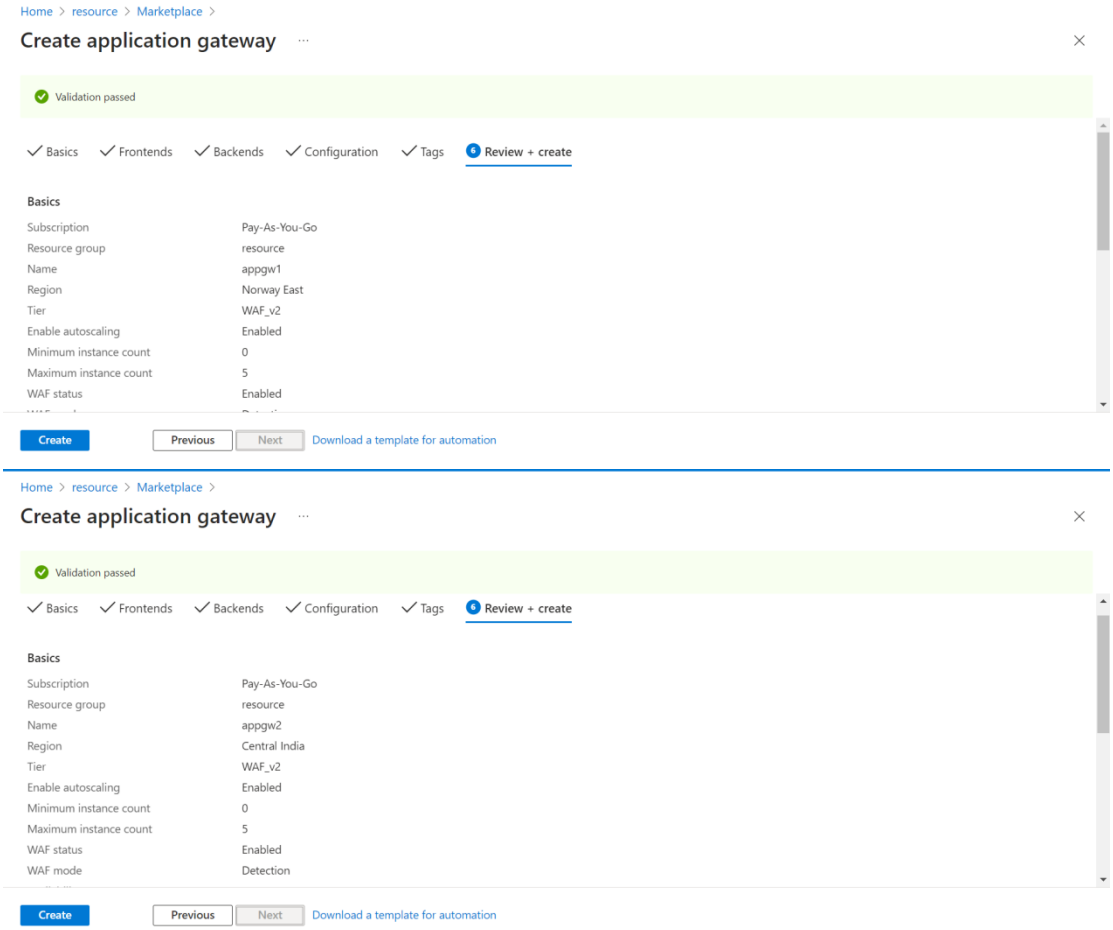
3.Web app output:

Here these images are taken as photo, besides screenshot

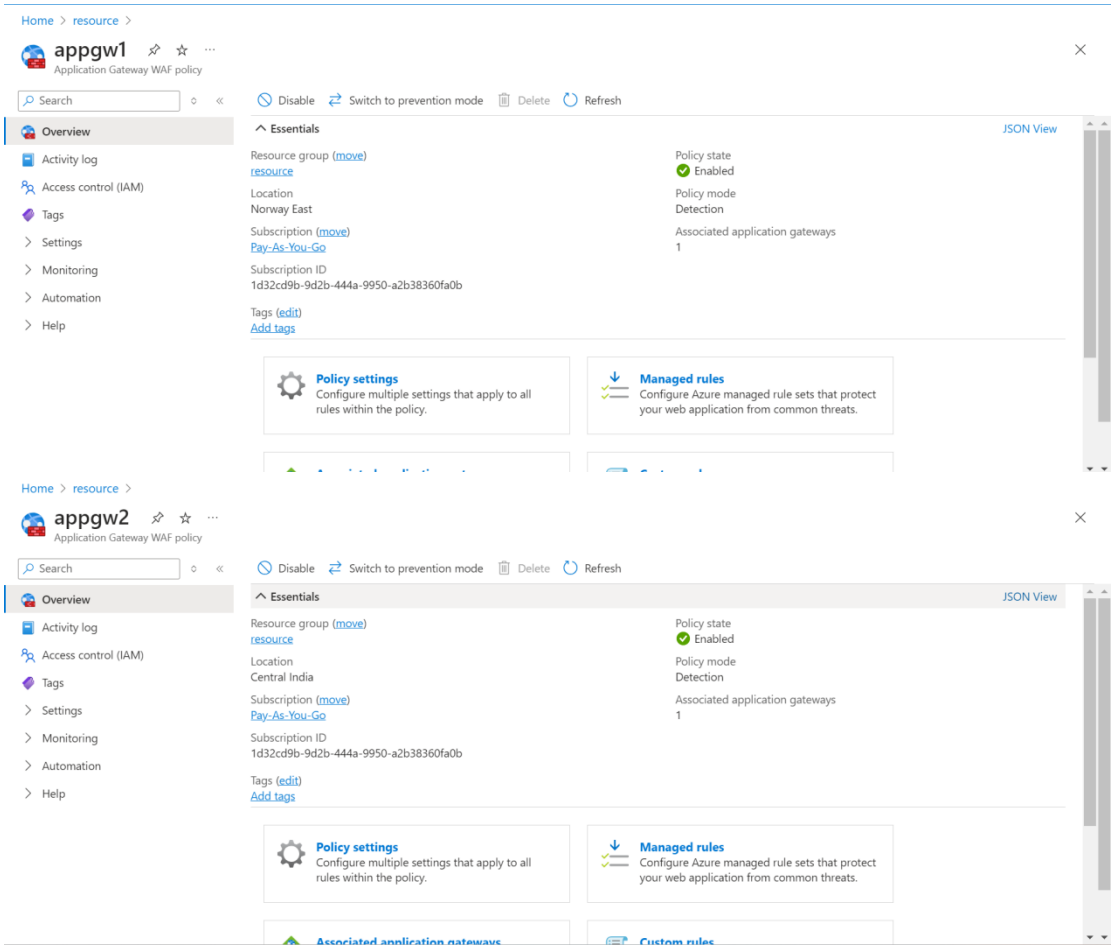




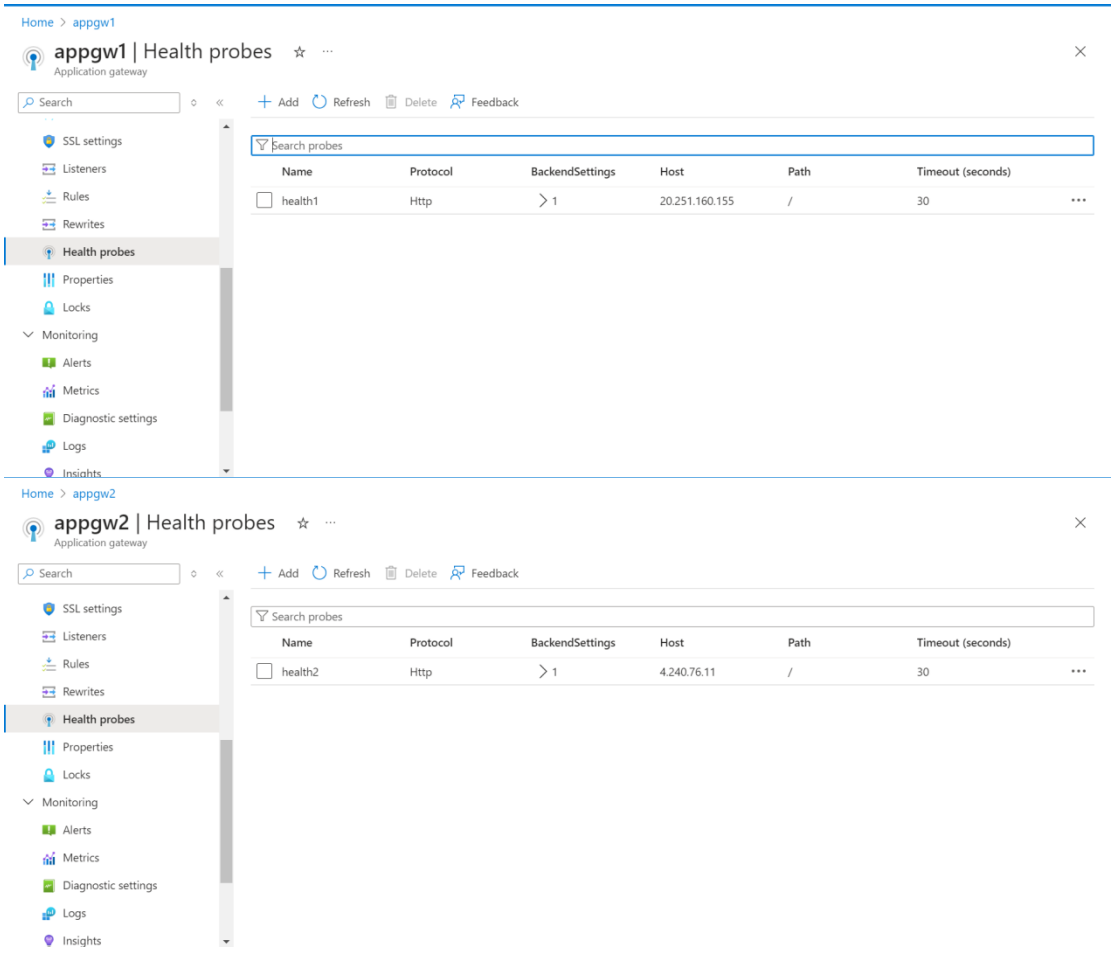
4.Created application gateway for separate vms in different location.



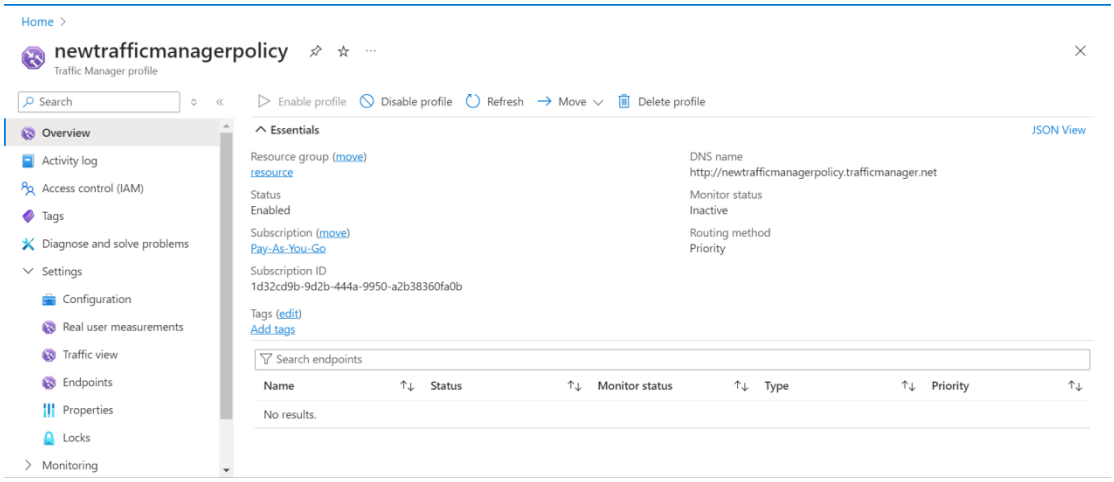
5. Along with the application gateway WAF policy also created separately.



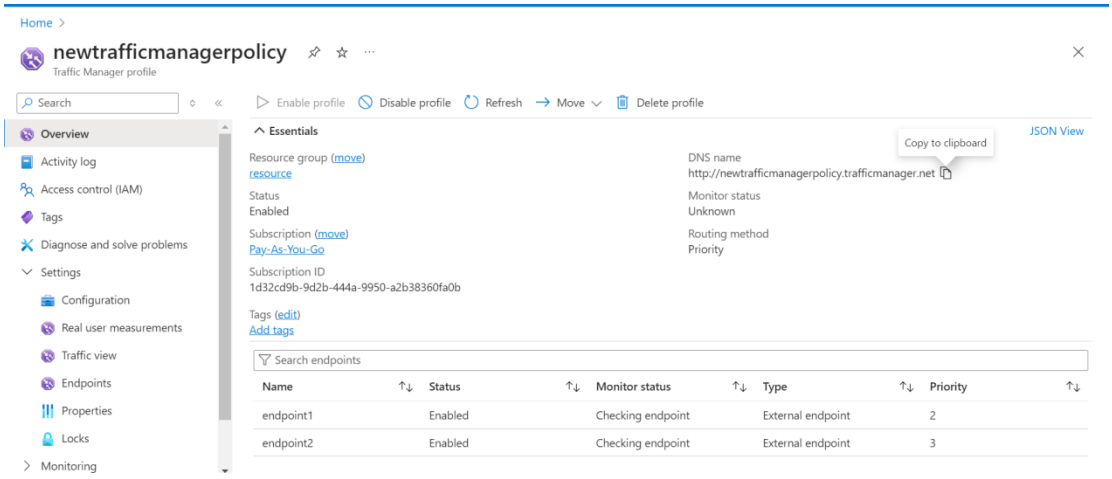
6. Health probe is added to ensure the status of the application gateway is worked properly.



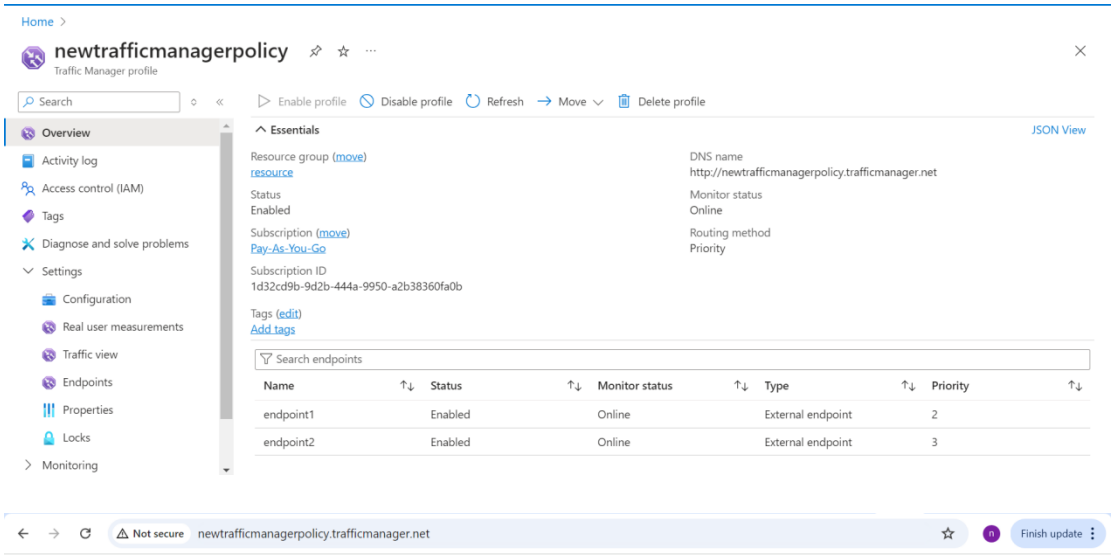
7. Traffic manager



8. Adding endpoints with the DNS

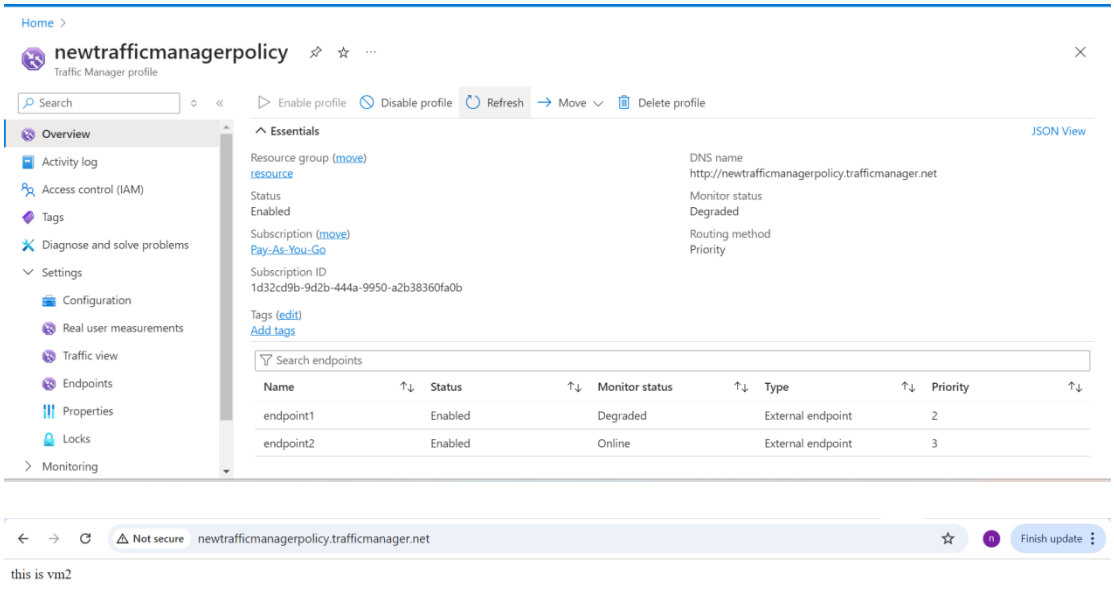


9. Checking the endpoints



On priority basis VM1 endpoint is accessed

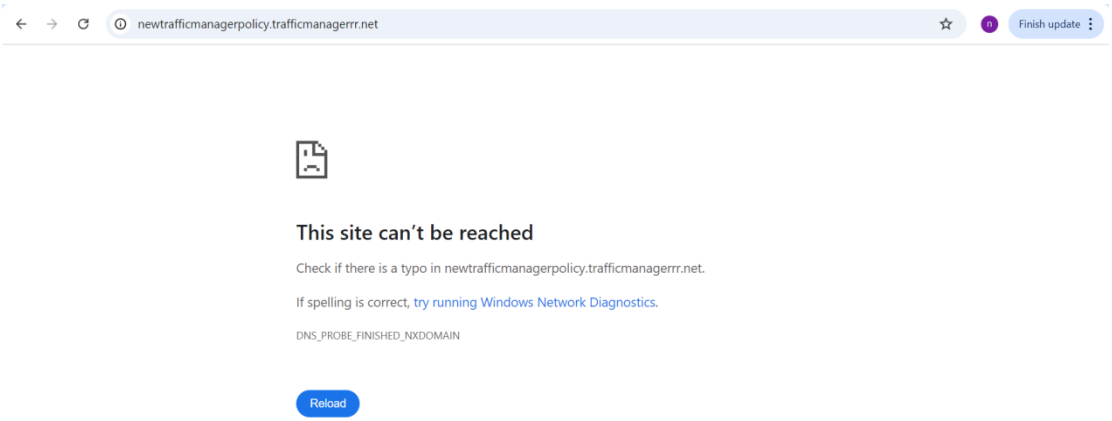
10. By stoping the VM1, lets run the DNS again.



this is vm2

On priority basis, once the VM1 is stoped working VM2 is start worked.

11. Error URL


newtrafficmanagerpolicy.trafficmanagerrr.net
Finish update
This site can't be reached
Check if there is a typo in newtrafficmanagerpolicy.trafficmanagerrr.net.
If spelling is correct, try running Windows Network Diagnostics.
DNS_PROBE_FINISHED_NXDOMAIN
Reload