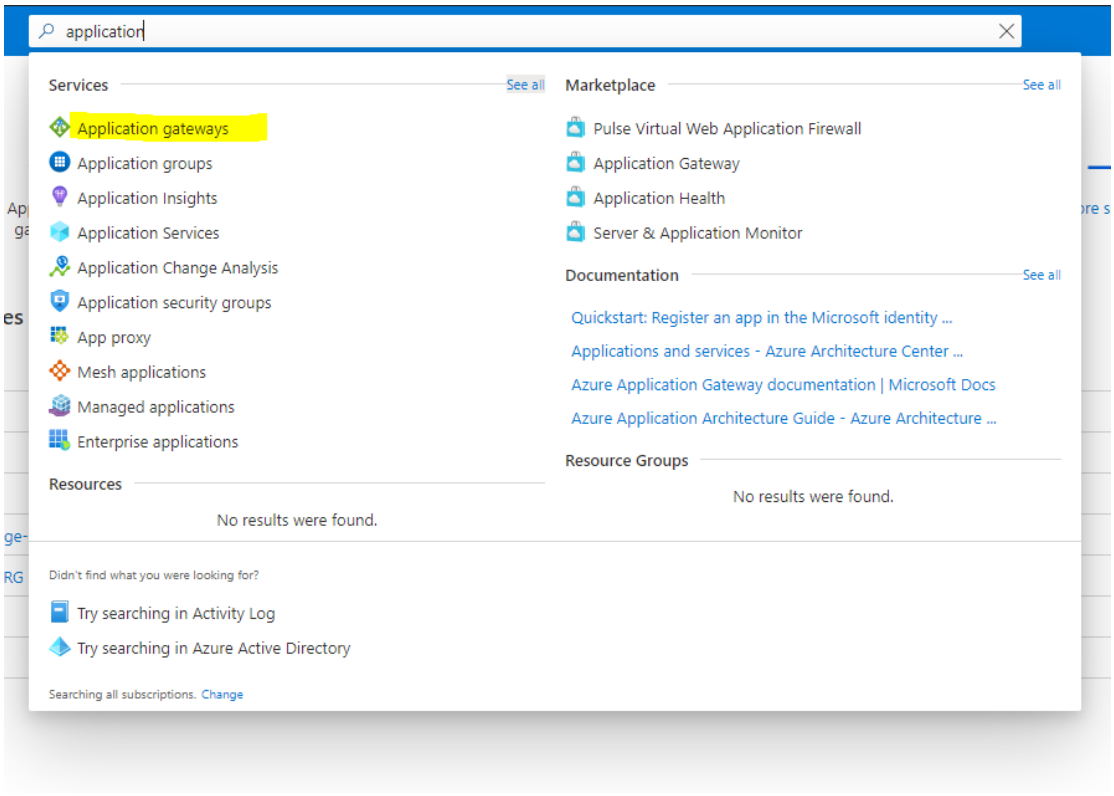
APPLICATION GATEWAY

Azure Application Gateway is a web traffic load balancer that enables you to manage traffic to your web applications, this type of routing is known as application layer (OSI layer 7) load balancing. Traditional load balancers operate at the transport layer (OSI layer 4 - TCP and UDP) and route traffic based on source IP address and port, to a destination IP address and port.

Creating Application Gateway

Goto -> Search -> Application Gateway -> Add



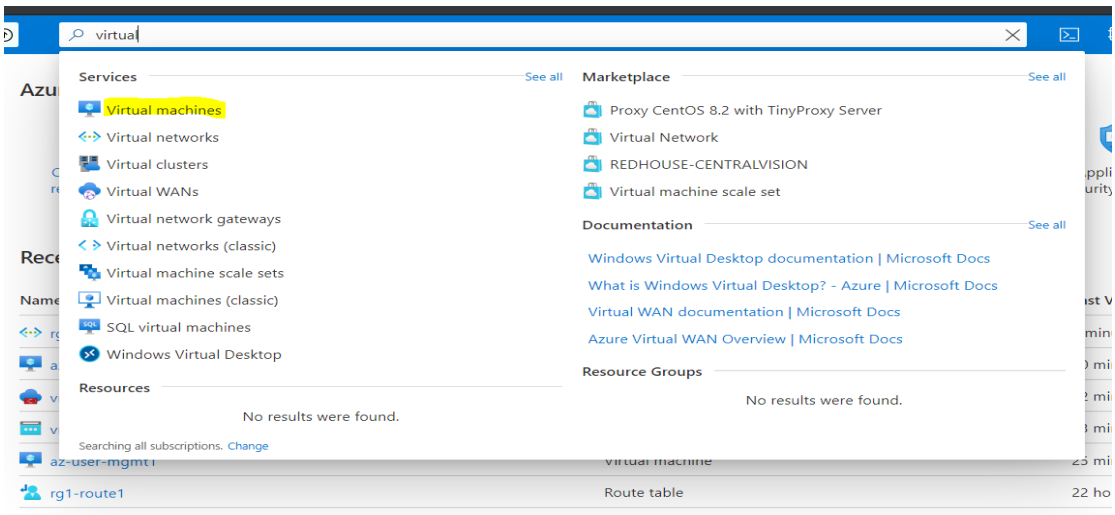
Resource group : RG
Application gateway name : TEST-AG
Region : West US
Tier : Standard V2
Virtual network : Create new
Name : VNET
Subnet name 1 : SUBNET-AG
Subnet name 2 : BACKEND-SUBNET
-> Click Next

Public IP address : Add new
Name : AG-FRONTEND-PUBIP
-> Click Next
Click Add a backend pool
Name : AG-BACKEND-POOL
Add backend pool without targets : Yes
-> Click Next
Click Add a routing rule
Rule name : MY-ROUTING-RULE
Listener name : MY-LISTENER
Frontend Ip : AG-FRONTEND-PUBIP
Backend target : AG-BACKEND-POOL
HTTP settings : Add new
HTTP settings name : MY-HTTP-RULE
-> Click Add

REST ALL LEAVE AS DEFAULTS AND CLICK REVIEW & CREATE.

Creating Virtual Machines

Goto -> Search -> Virtual Machines -> Create



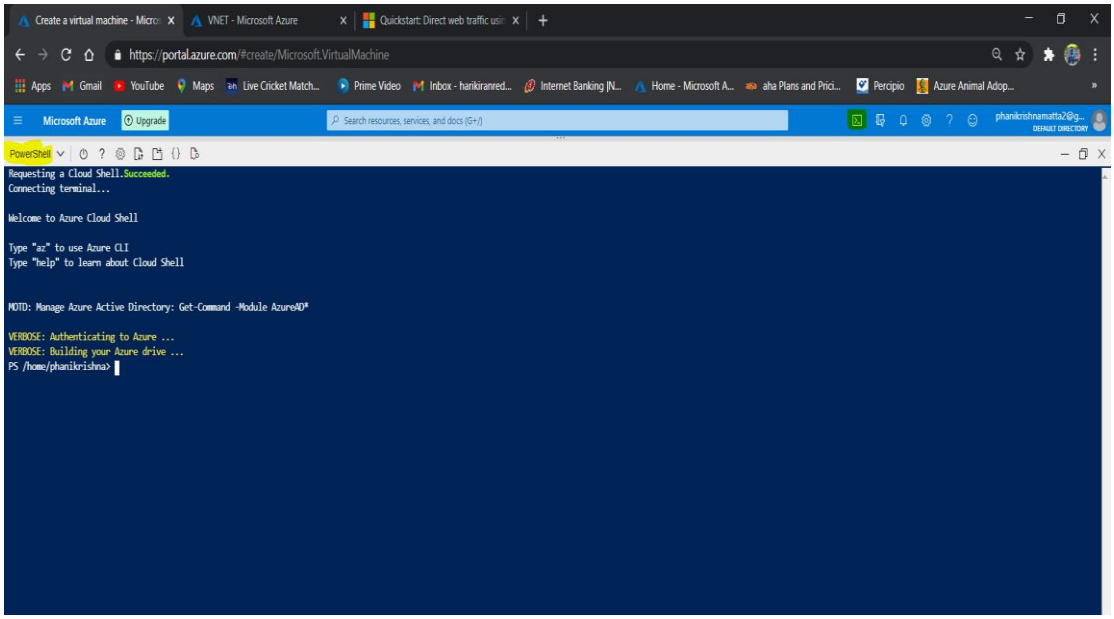
Resource group: RG
Virtual Machine name : VM1
Region : West US
Avialiablity options : No infrastructure redundancy required.
Image : Windows Server 2019 Datacenter
Size : Standard_B1s

Username : USERNAME OF YOUR CHOICE
Password : PASSWORD OF YOUR CHOICE
Public inbound ports: None
-> Click Next
-> Click Next
Virtual network : VNET
Subnet : BACKENT-SUBNET
-> Click Next
Boot diagnostics : Disable

REST ALL LEAVE AS DEFAULTS AND CLICK REVIEW & CREATE.

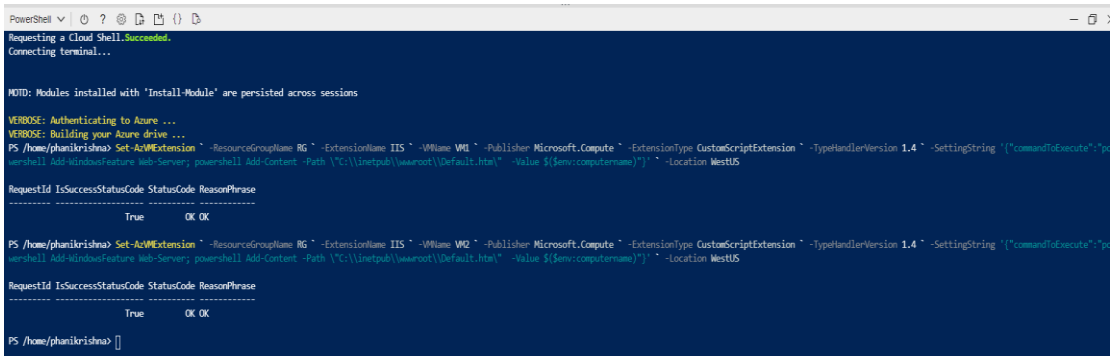
Using the same above process create Virtual Machine VM2.

Now install IIS Web Server in VM1 & VM2 using powershell in Azure cloud shell.




```
Set-AzVMExtension ` -ResourceGroupName myResourceGroupAG ` -ExtensionName IIS ` -VMName VM1 ` -Publisher Microsoft.Compute ` -ExtensionType CustomScriptExtension ` -TypeHandlerVersion 1.4 ` -SettingString '{"commandToExecute":"powershell Add-WindowsFeature Web-Server; powershell Add-Content -Path \"C:\\inetpub\\wwwroot\\Default.htm\" -Value $($env:computername)"}' ` -Location WestUS
```

Repeat the same again for VM2 with VMName as VM2.



Now Goto -> Application Gateway -> Backend Pools -> AG-BACKEND-POOL -> Backend targets -> Target type : Virtual Machine, Target : VM1; Target type : Virtual Machine, Target : VM2 -> Save

Testing Application Gateway

Copy the public ip address of Application gateway and paste it in the browser and try to refresh the browser repeatedly, you should see the load balancing between VM1 & VM2.