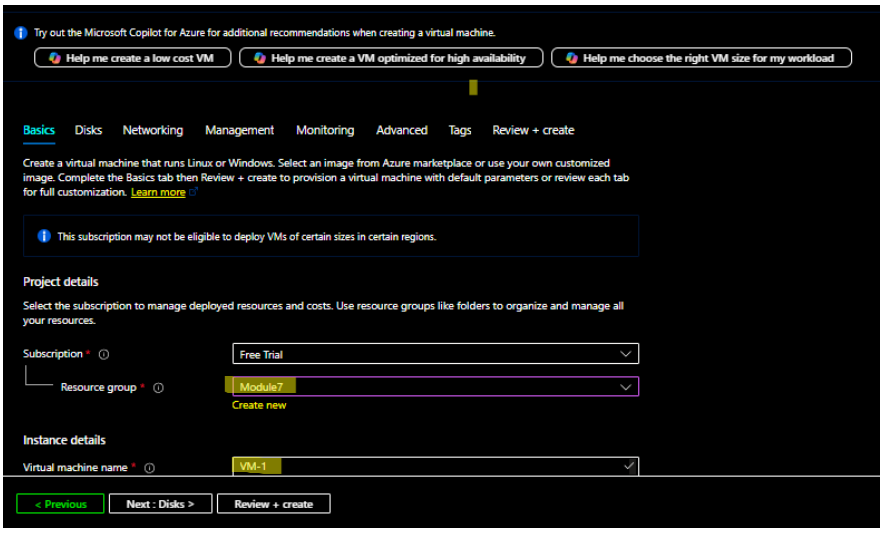
Module 7: Assignment - 1

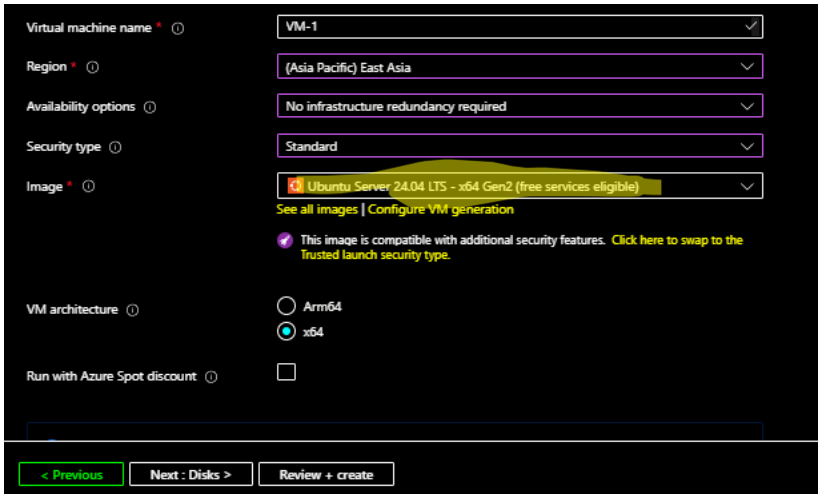
Azure 104 Certification Course

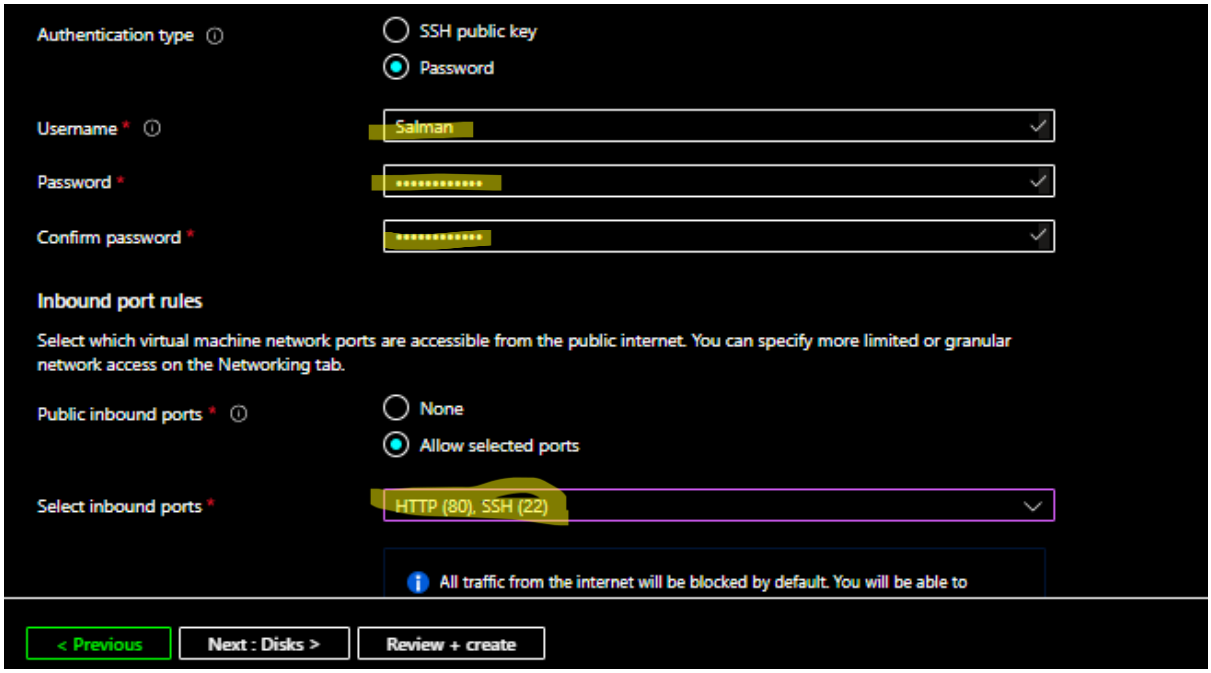
IntelliPaat

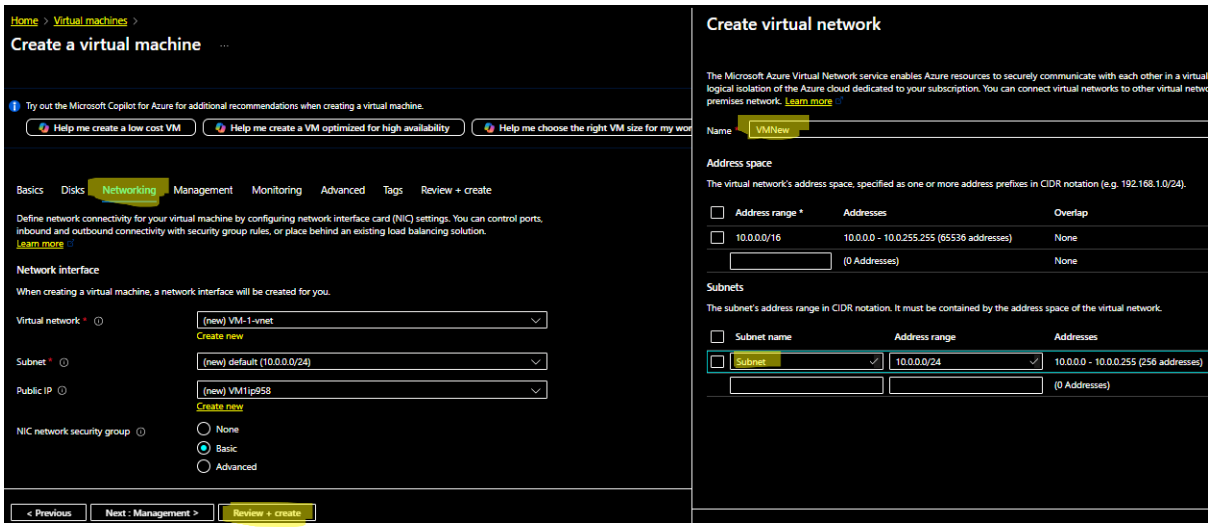
Tasks To Be Performed:

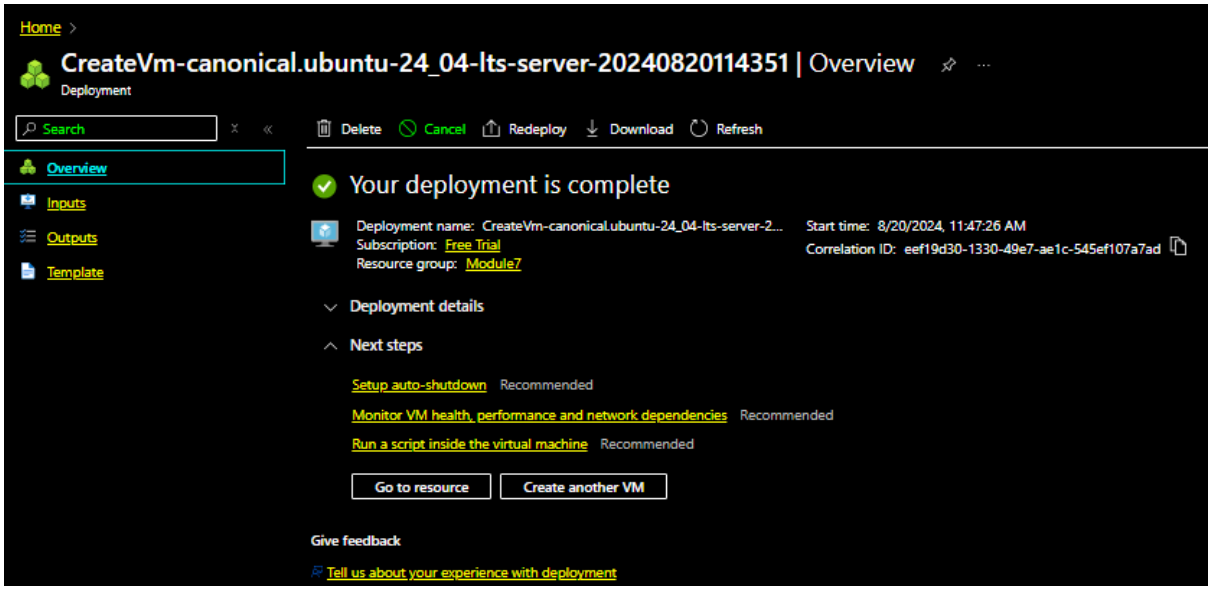
1. Deploy 2 VMs with Ubuntu and Apache2 installed
2. Change index.html to include the following text
    a. “This is VM1” on VM1
    b. “This is VM2” on VM2
3. Create a load balancer which will balance the traffic between these two VMs

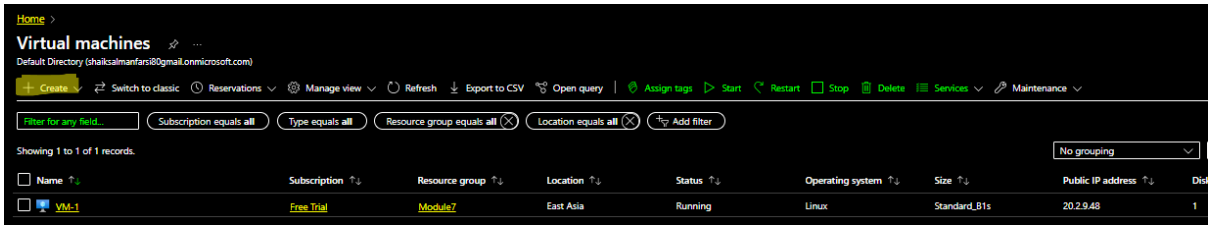


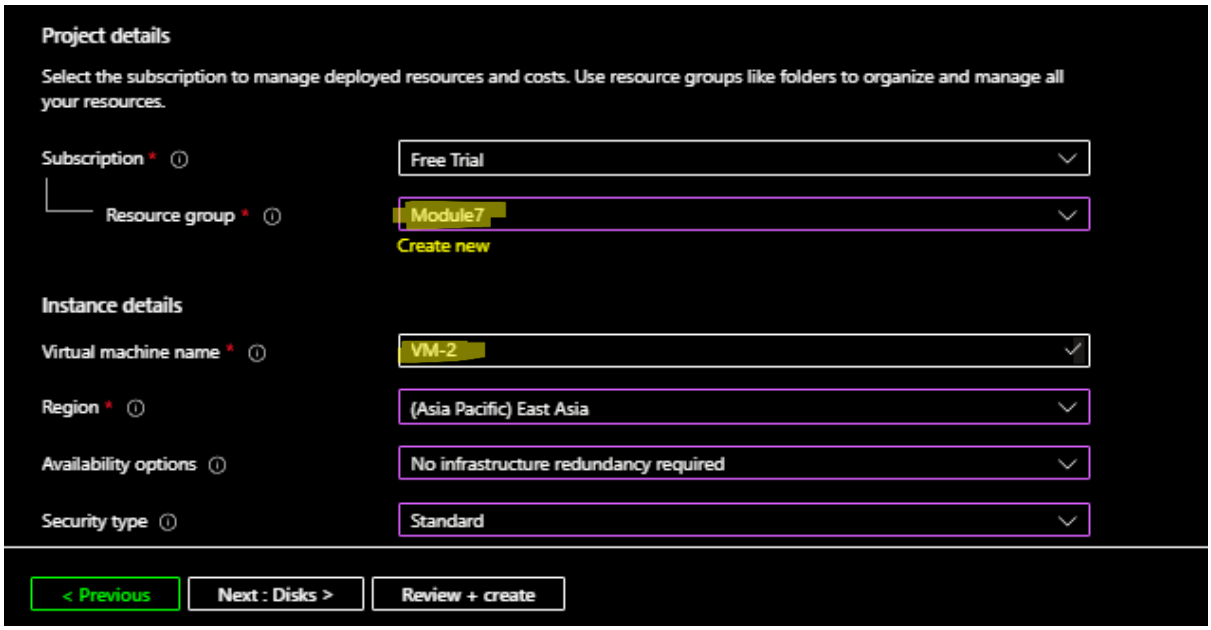


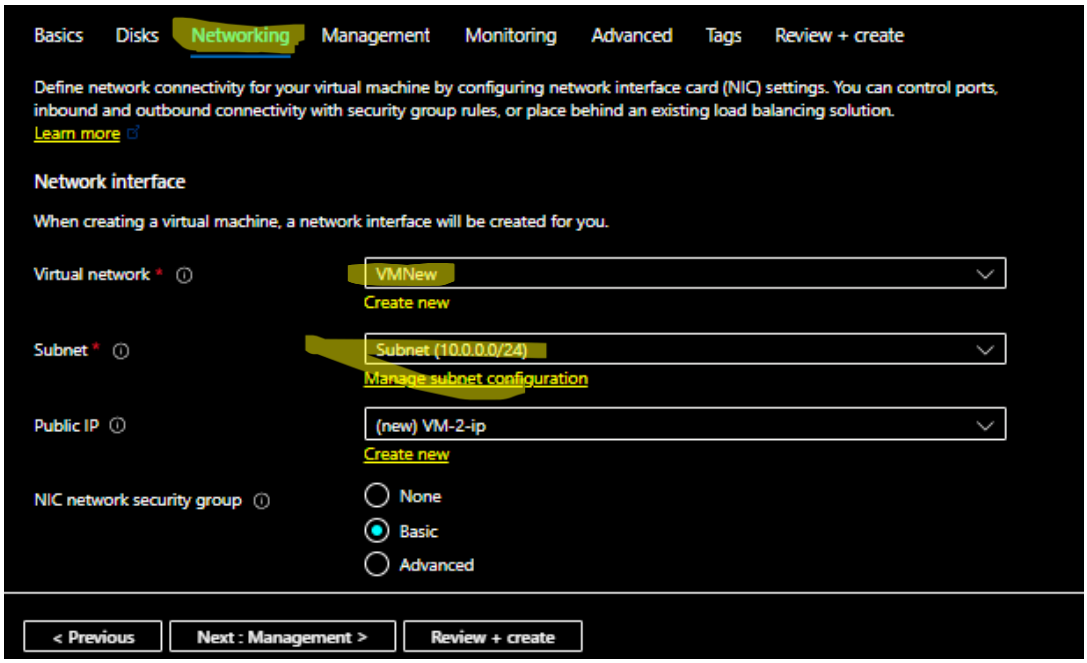

Authentication type
SSH public key
Password
Username *
Salman
Password *
Confirm password *
Inbound port rules
Select which virtual machine network ports are accessible from the public internet. You can specify more limited or granular network access on the Networking tab.
Public inbound ports *
None
Allow selected ports
Select inbound ports *
HTTP (80), SSH (22)
All traffic from the internet will be blocked by default. You will be able to
< Previous
Next : Disks >
Review + create

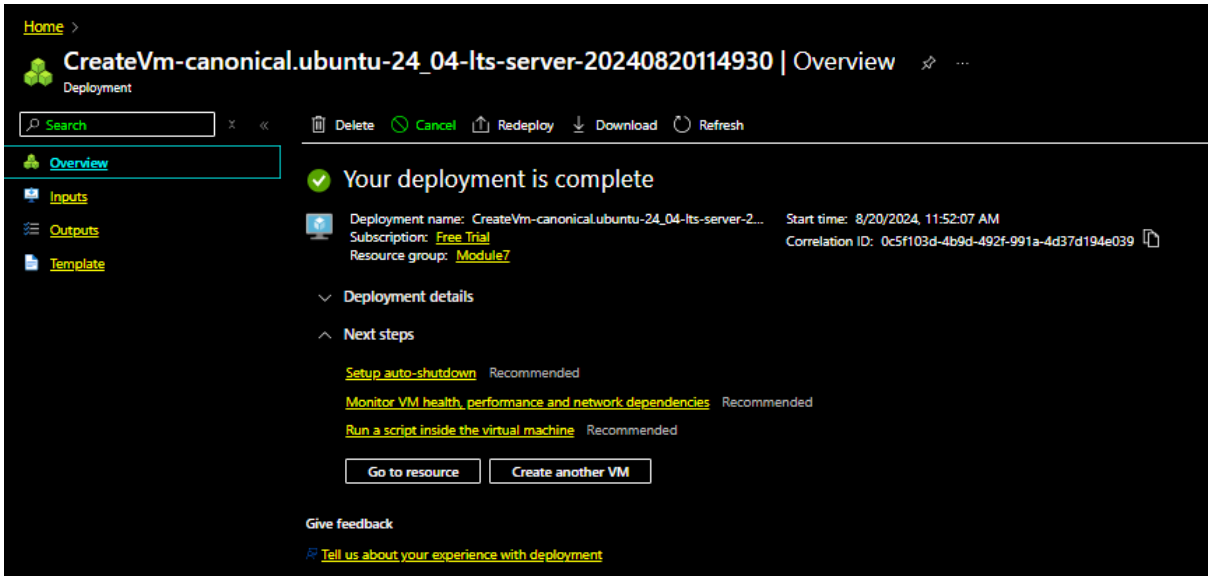

Home > Virtual machines >
Create a virtual machine
Try out the Microsoft Copilot for Azure for additional recommendations when creating a virtual machine.
Help me create a low cost VM
Help me create a VM optimized for high availability
Basics
Disks
Networking
Management
Monitoring
Advanced
Tags
Review + create
Define network connectivity for your virtual machine by configuring network interface card (NIC) settings. You can control ports, inbound and outbound connectivity with security group rules, or place behind an existing load balancing solution.
Learn more
Network interface
When creating a virtual machine, a network interface will be created for you.
Virtual network *
(new) VM-1-vnet
Create new
Subnet *
(new) default (10.0.0.0/24)
Public IP
(new) VM1ip958
Create new
NIC network security group
None
Basic
Advanced
< Previous
Next : Management >
Review + create
Create virtual network
The Microsoft Azure Virtual Network service enables Azure resources to securely communicate with each other in a virtual logical isolation of the Azure cloud dedicated to your subscription. You can connect virtual networks to other virtual netwo premises network. Learn more
Name *
VMNew
Address space
The virtual network's address space, specified as one or more address prefixes in CIDR notation (e.g. 192.168.1.0/24).
Address range *
Addresses
Overlap
10.0.0.0/16
10.0.0.0 - 10.0.255.255 (65536 addresses)
None
(0 Addresses)
None
Subnets
The subnet's address range in CIDR notation. It must be contained by the address space of the virtual network.
Subnet name
Address range
Addresses
Subnet
10.0.0.0/24
10.0.0.0 - 10.0.0.255 (256 addresses)
(0 Addresses)

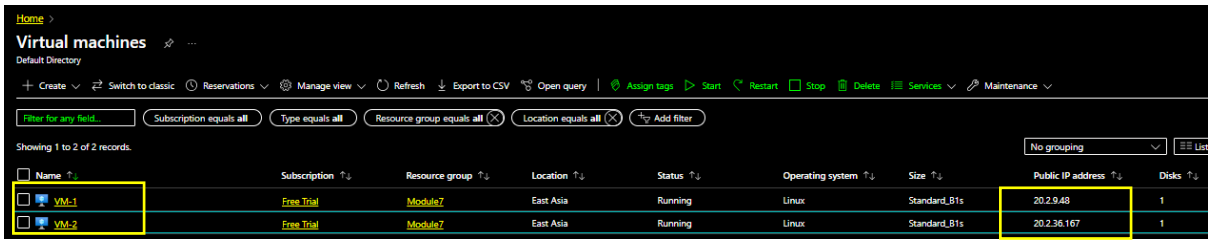

Home >
CreateVm-canonical.ubuntu-24_04-lts-server-20240820114351 | Overview
Deployment
Search
Delete
Cancel
Redeploy
Download
Refresh
Overview
Inputs
Outputs
Template
Your deployment is complete
Deployment name: CreateVm-canonical.ubuntu-24_04-lts-server-2...
Subscription: Free Trial
Resource group: Module7
Start time: 8/20/2024, 11:47:26 AM
Correlation ID: eef19d30-1330-49e7-ae1c-545ef107a7ad
Deployment details
Next steps
Setup auto-shutdown Recommended
Monitor VM health, performance and network dependencies Recommended
Run a script inside the virtual machine Recommended
Go to resource
Create another VM
Give feedback
Tell us about your experience with deployment


Home
Virtual machines
Default Directory (shaiksalmanfarsi80gmail.onmicrosoft.com)
Create
Switch to classic
Reservations
Manage view
Refresh
Export to CSV
Open query
Assign tags
Start
Restart
Stop
Delete
Services
Maintenance
Filter for any field...
Subscription equals all
Type equals all
Resource group equals all
Location equals all
Add filter
Showing 1 to 1 of 1 records.
No grouping
Name
Subscription
Resource group
Location
Status
Operating system
Size
Public IP address
VM-1
Free Trial
Module7
East Asia
Running
Linux
Standard_B1s
20.2.9.48


Project details
Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.
Subscription *
Free Trial
Resource group *
Module7
Create new
Instance details
Virtual machine name *
VM-2
Region *
(Asia Pacific) East Asia
Availability options
No infrastructure redundancy required
Security type
Standard
< Previous
Next : Disks >
Review + create


Basics
Disks
Networking
Management
Monitoring
Advanced
Tags
Review + create
Define network connectivity for your virtual machine by configuring network interface card (NIC) settings. You can control ports, inbound and outbound connectivity with security group rules, or place behind an existing load balancing solution.
Learn more
Network interface
When creating a virtual machine, a network interface will be created for you.
Virtual network *
VMNew
Create new
Subnet *
Subnet (10.0.0.0/24)
Manage subnet configuration
Public IP
(new) VM-2-ip
Create new
NIC network security group
None
Basic
Advanced
< Previous
Next : Management >
Review + create



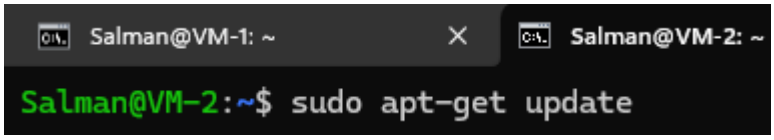


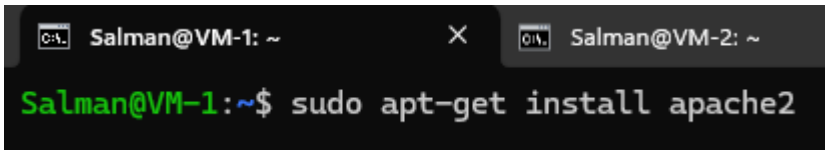
Connect to the machine and update it also install apache 2 on both the Vms

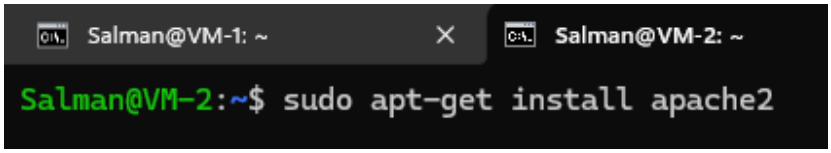
```
C:\Users\shaik>ssh Salman@20.2.9.48
Salman@20.2.9.48's password:
Welcome to Ubuntu 24.04 LTS (GNU/Linux 6.8.0-1012-azure x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:     https://landscape.canonical.com
 * Support:        https://ubuntu.com/pro
```

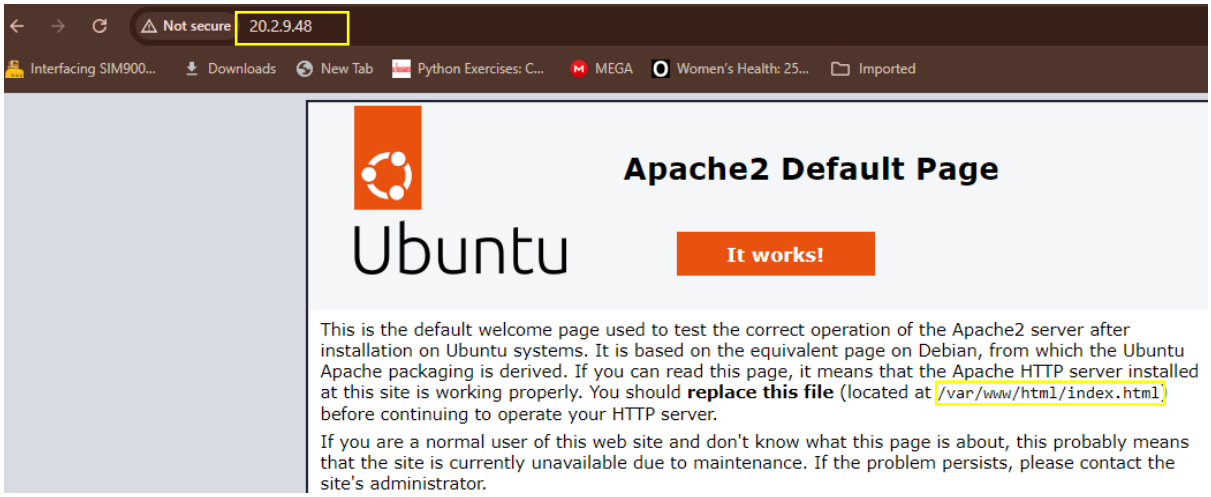
```
Salman@VM-1: ~   Salman@VM-2: ~
Salman@VM-1:~$ sudo apt-get update
```

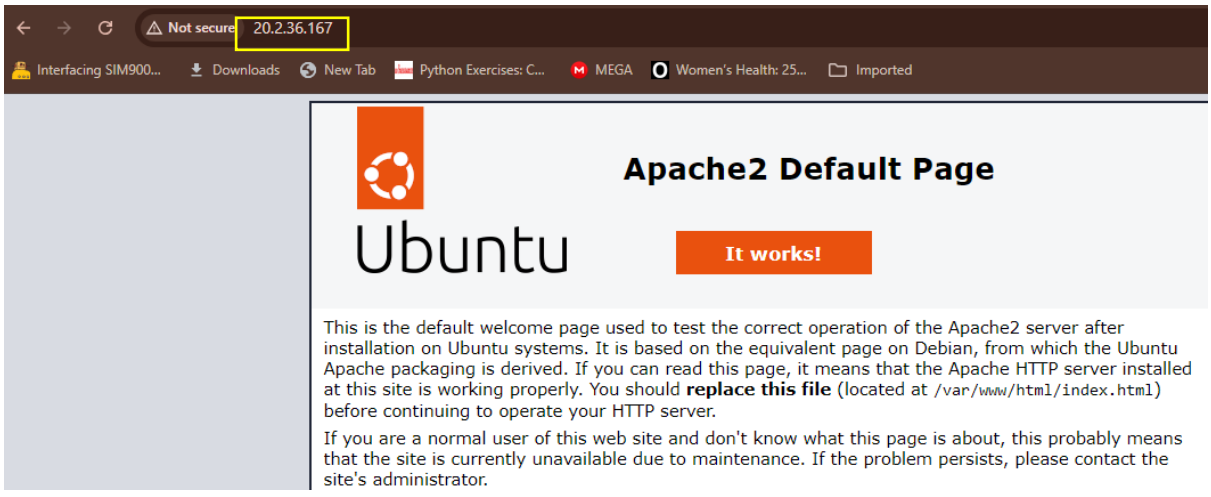
```
C:\Users\shaik>ssh Salman@20.2.36.167
The authenticity of host '20.2.36.167 (20.2.36.167)' can't be established.
ED25519 key fingerprint is SHA256:ewSUAioaTM2C+D5xX26wHFG3G+97FZLd3I5V+2fGACQ.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '20.2.36.167' (ED25519) to the list of known hosts.
Salman@20.2.36.167's password:
Welcome to Ubuntu 24.04 LTS (GNU/Linux 6.8.0-1012-azure x86_64)
```


Salman@VM-1: ~
Salman@VM-2: ~
Salman@VM-2:~$ sudo apt-get update


Salman@VM-1: ~
Salman@VM-2: ~
Salman@VM-1:~$ sudo apt-get install apache2


Salman@VM-1: ~
Salman@VM-2: ~
Salman@VM-2:~$ sudo apt-get install apache2


Not secure
20.2.9.48
Interfacing SIM900...
Downloads
New Tab
Python Exercises: C...
MEGA
Women's Health: 25...
Imported
Apache2 Default Page
Ubuntu
It works!
This is the default welcome page used to test the correct operation of the Apache2 server after installation on Ubuntu systems. It is based on the equivalent page on Debian, from which the Ubuntu Apache packaging is derived. If you can read this page, it means that the Apache HTTP server installed at this site is working properly. You should replace this file (located at /var/www/html/index.html) before continuing to operate your HTTP server.
If you are a normal user of this web site and don't know what this page is about, this probably means that the site is currently unavailable due to maintenance. If the problem persists, please contact the site's administrator.


Not secure
20.2.36.167
Interfacing SIM900...
Downloads
New Tab
Python Exercises: C...
MEGA
Women's Health: 25...
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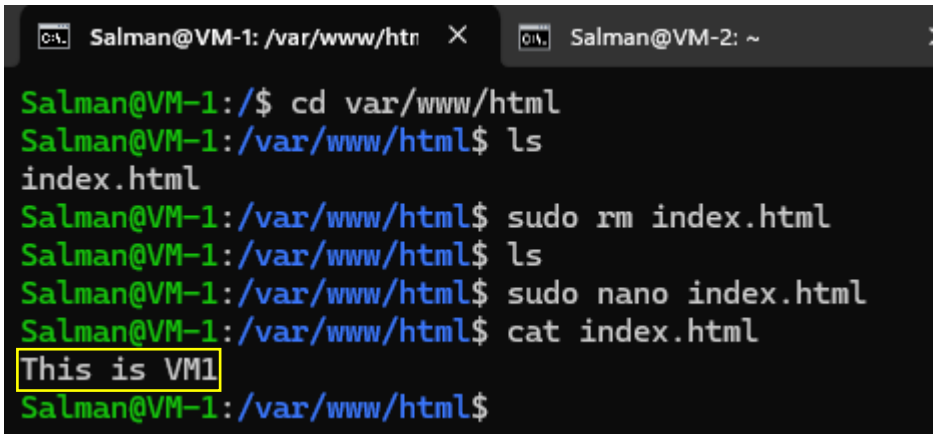
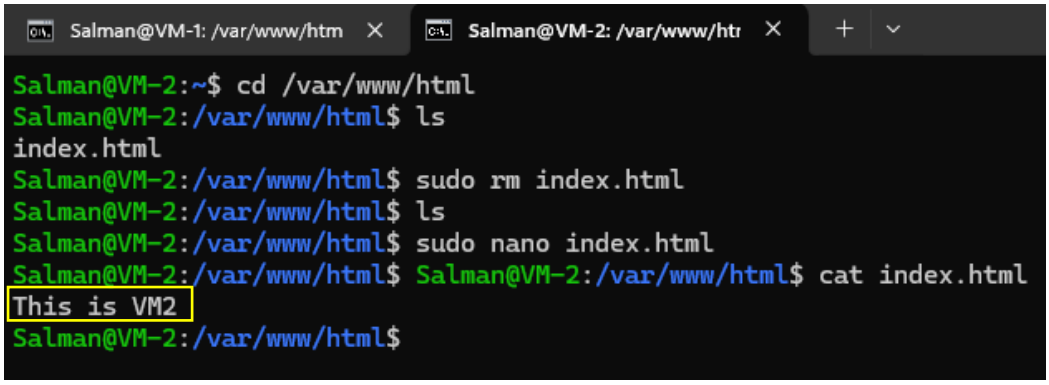
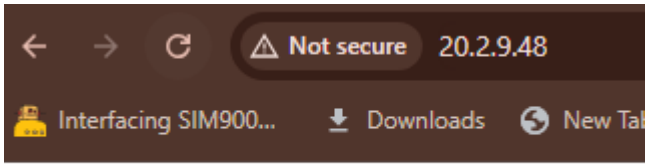
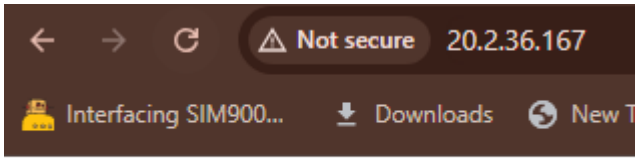
Remove the html file to add new one





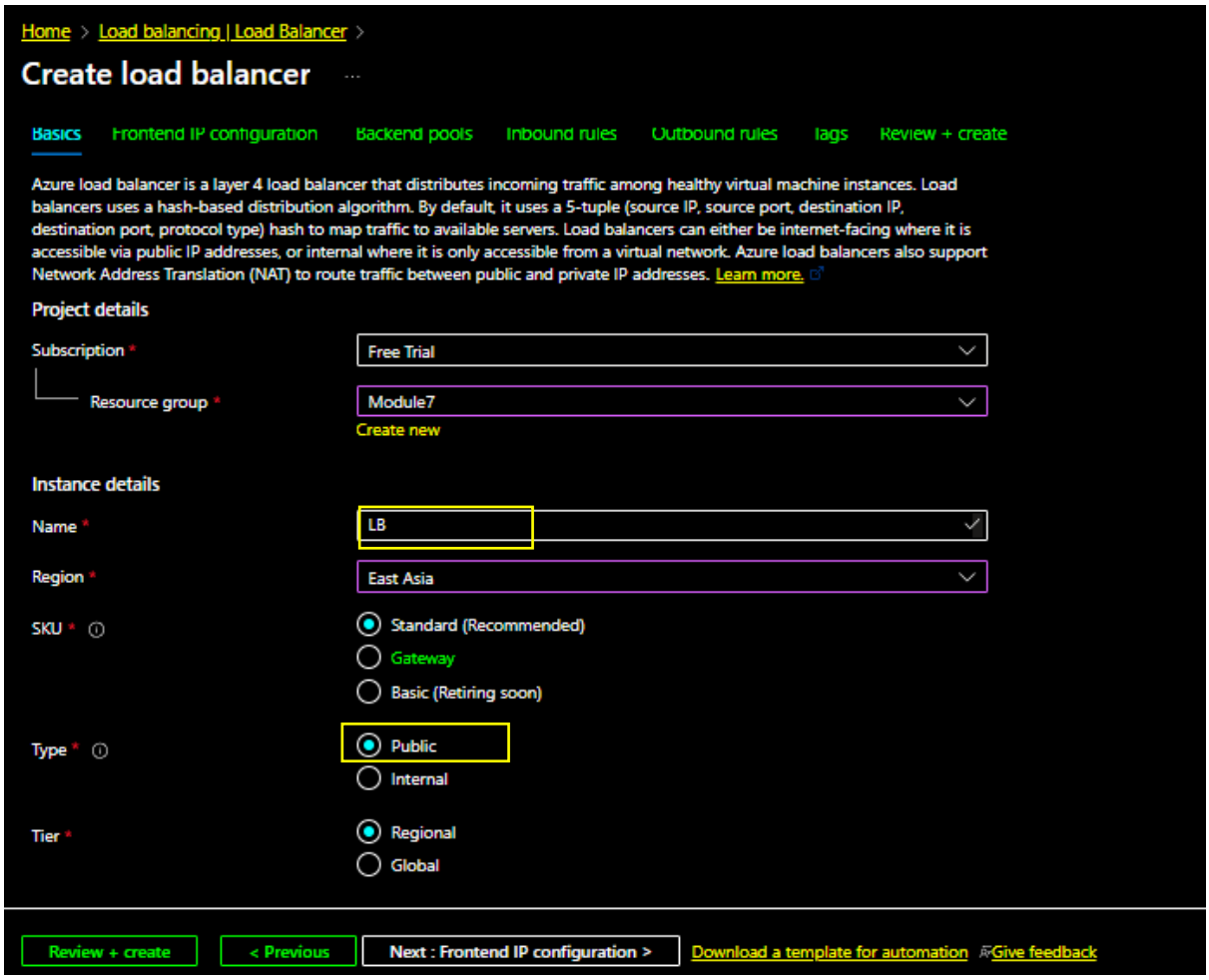


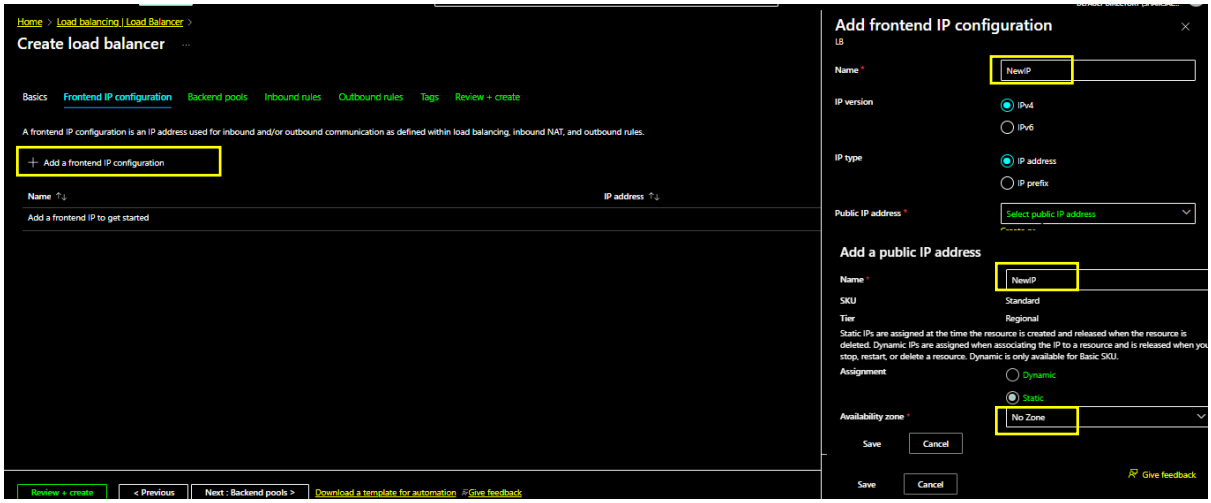
This is VM1

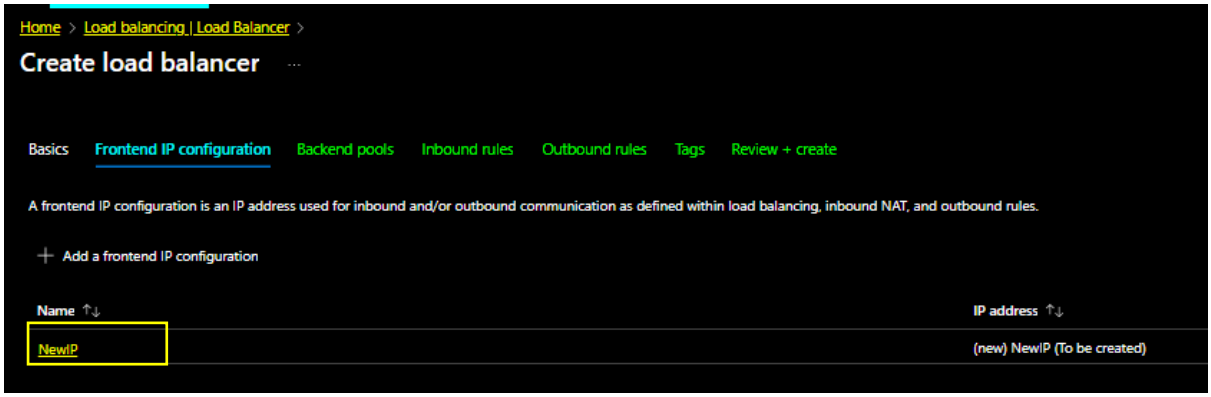


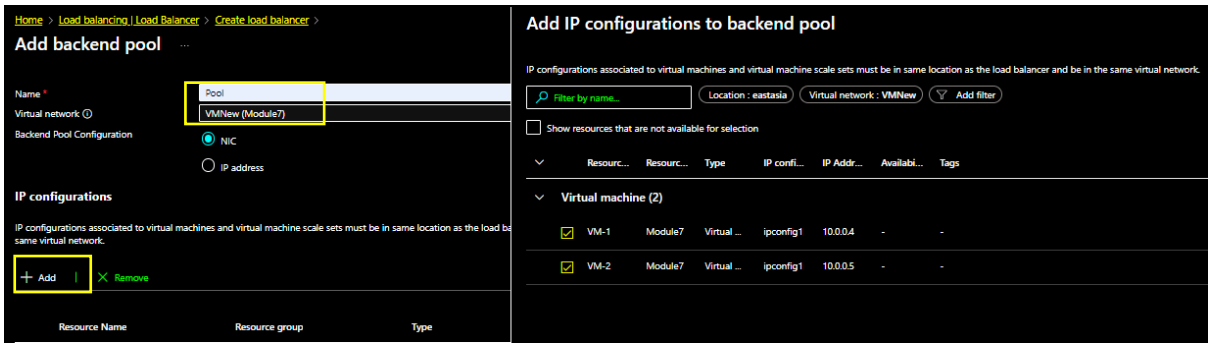
This is VM2

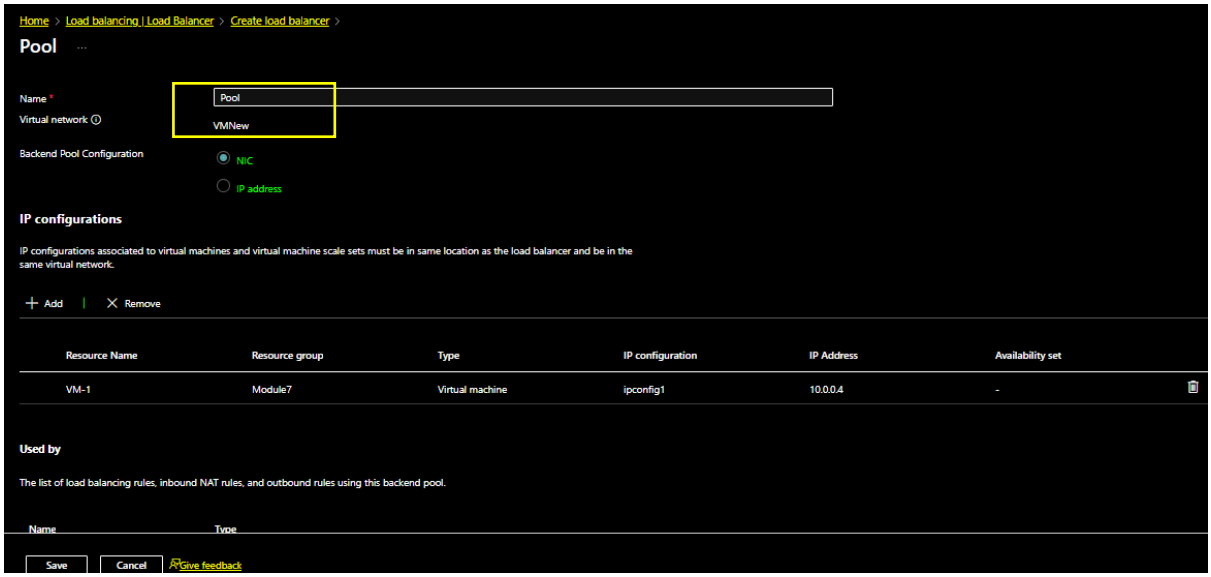
Now we have to create load balancer to balance the traffic between these two VM's

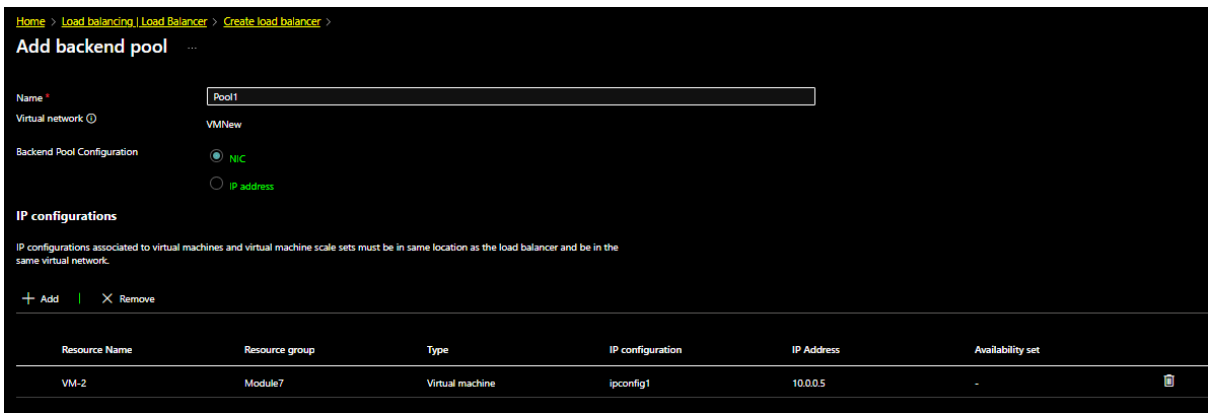


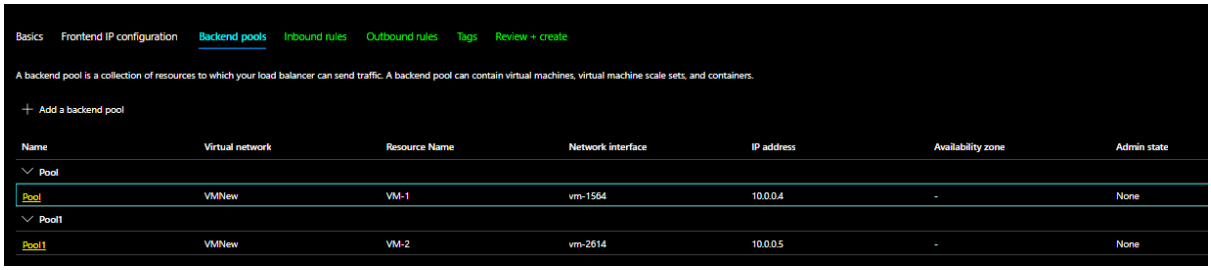


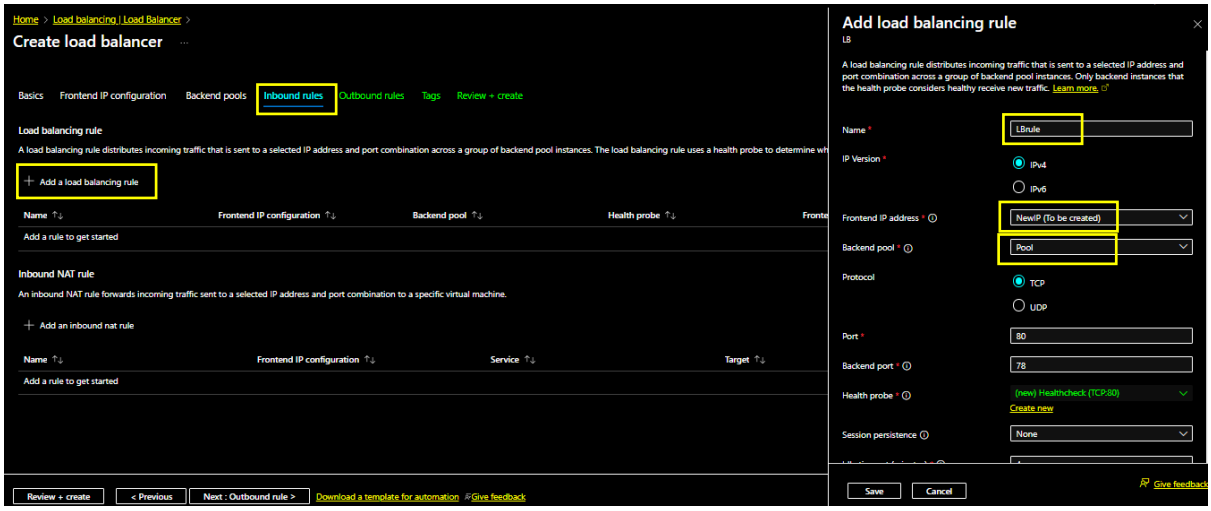

Home > Load balancing | Load Balancer >
Create load balancer
Basics
Frontend IP configuration
Backend pools
Inbound rules
Outbound rules
Tags
Review + create
A frontend IP configuration is an IP address used for inbound and/or outbound communication as defined within load balancing, inbound NAT, and outbound rules.
Add a frontend IP configuration
Name
IP address
NewIP
(new) NewIP (To be created)

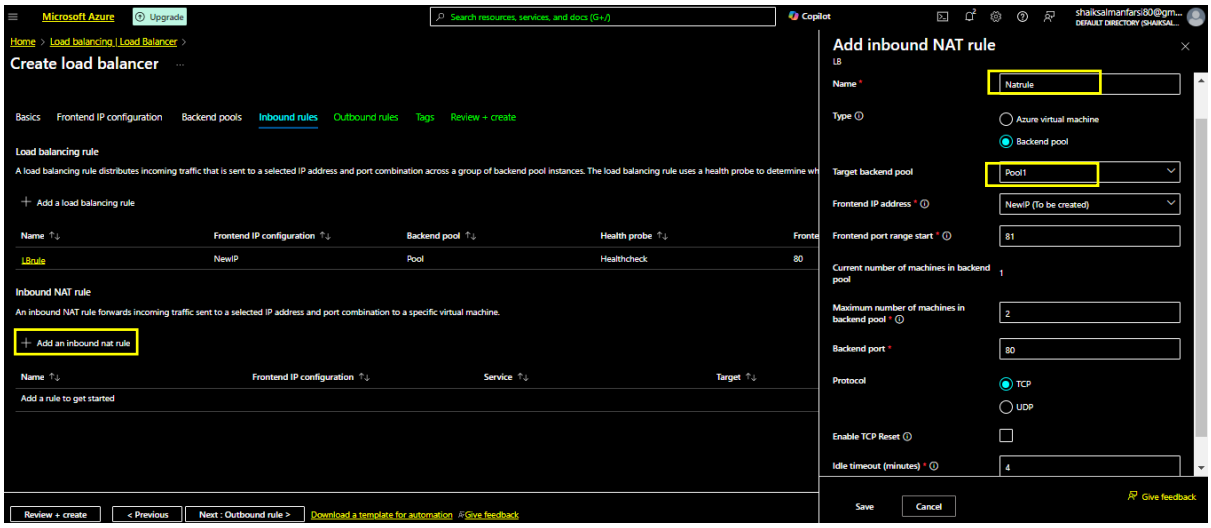

Home > Load balancing | Load Balancer > Create load balancer >
Add backend pool
Name *
Pool
Virtual network
VMNew (Module7)
Backend Pool Configuration
NIC
IP address
IP configurations
IP configurations associated to virtual machines and virtual machine scale sets must be in same location as the load ba
same virtual network.
Add
Remove
Resource Name
Resource group
Type
Add IP configurations to backend pool
IP configurations associated to virtual machines and virtual machine scale sets must be in same location as the load balancer and be in the same virtual network.
Filter by name...
Location : eastasia
Virtual network : VMNew
Add filter
Show resources that are not available for selection
Resourc...
Resourc...
Type
IP confi...
IP Addr...
Availabi...
Tags
Virtual machine (2)
VM-1
Module7
Virtual ...
ipconfig1
10.0.0.4
VM-2
Module7
Virtual ...
ipconfig1
10.0.0.5


Home > Load balancing | Load Balancer > Create load balancer >
Pool
Name *
Pool
Virtual network
VMNew
Backend Pool Configuration
NIC
IP address
IP configurations
IP configurations associated to virtual machines and virtual machine scale sets must be in same location as the load balancer and be in the same virtual network.
Add
Remove
Resource Name
Resource group
Type
IP configuration
IP Address
Availability set
VM-1
Module7
Virtual machine
ipconfig1
10.0.0.4
-
Used by
The list of load balancing rules, inbound NAT rules, and outbound rules using this backend pool.
Name
Type
Save
Cancel
Give feedback

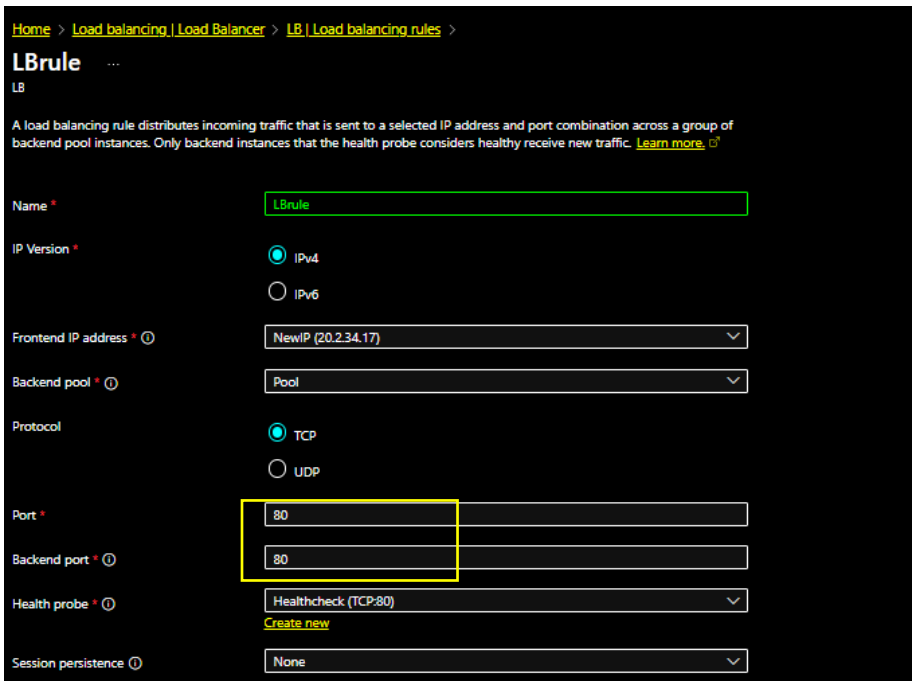

Home > Load balancing | Load Balancer > Create load balancer >
Add backend pool
Name *
Pool1
Virtual network
VMNew
Backend Pool Configuration
NIC
IP address
IP configurations
IP configurations associated to virtual machines and virtual machine scale sets must be in same location as the load balancer and be in the same virtual network.
Add
Remove
Resource Name
Resource group
Type
IP configuration
IP Address
Availability set
VM-2
Module7
Virtual machine
ipconfig1
10.0.0.5
-

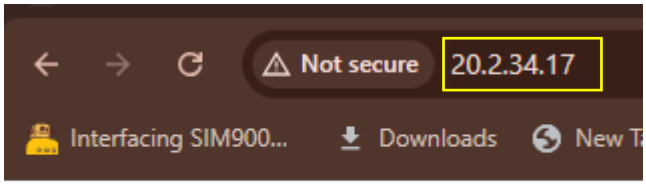

Basics
Frontend IP configuration
Backend pools
Inbound rules
Outbound rules
Tags
Review + create
A backend pool is a collection of resources to which your load balancer can send traffic. A backend pool can contain virtual machines, virtual machine scale sets, and containers.
Add a backend pool
Name
Virtual network
Resource Name
Network interface
IP address
Availability zone
Admin state
Pool
Pool
VMNew
VM-1
vm-1564
10.0.0.4
-
None
Pool1
Pool1
VMNew
VM-2
vm-2614
10.0.0.5
-
None


Home
Load balancing | Load Balancer
Create load balancer
Basics
Frontend IP configuration
Backend pools
Inbound rules
Outbound rules
Tags
Review + create
Load balancing rule
A load balancing rule distributes incoming traffic that is sent to a selected IP address and port combination across a group of backend pool instances. The load balancing rule uses a health probe to determine wh
Add a load balancing rule
Name
Frontend IP configuration
Backend pool
Health probe
Add a rule to get started
Inbound NAT rule
An inbound NAT rule forwards incoming traffic sent to a selected IP address and port combination to a specific virtual machine.
Add an inbound nat rule
Name
Frontend IP configuration
Service
Target
Add a rule to get started
Review + create
< Previous
Next : Outbound rule >
Download a template for automation
Give feedback
Add load balancing rule
LB
A load balancing rule distributes incoming traffic that is sent to a selected IP address and port combination across a group of backend pool instances. Only backend instances that the health probe considers healthy receive new traffic. Learn more.
Name *
LBrule
IP Version *
IPv4
IPv6
Frontend IP address *
NewIP (To be created)
Backend pool *
Pool
Protocol
TCP
UDP
Port *
80
Backend port *
78
Health probe *
(new) Healthcheck (TCP:80)
Create new
Session persistence
None
Save
Cancel
Give feedback

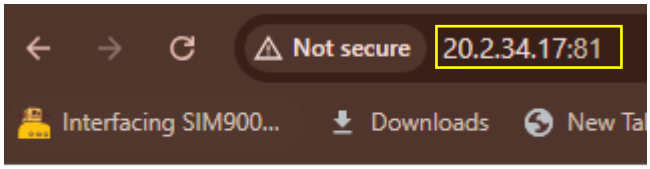

Microsoft Azure
Upgrade
Search resources, services, and docs (G+/)
Copilot
Home
Load balancing | Load Balancer
Create load balancer
Basics
Frontend IP configuration
Backend pools
Inbound rules
Outbound rules
Tags
Review + create
Load balancing rule
A load balancing rule distributes incoming traffic that is sent to a selected IP address and port combination across a group of backend pool instances. The load balancing rule uses a health probe to determine wh
Add a load balancing rule
Name
Frontend IP configuration
Backend pool
Health probe
LBrule
NewIP
Pool
Healthcheck
80
Inbound NAT rule
An inbound NAT rule forwards incoming traffic sent to a selected IP address and port combination to a specific virtual machine.
Add an inbound nat rule
Name
Frontend IP configuration
Service
Target
Add a rule to get started
Review + create
< Previous
Next : Outbound rule >
Download a template for automation
Give feedback
Add inbound NAT rule
LB
Name *
Natrule
Type
Azure virtual machine
Backend pool
Target backend pool
Pool1
Frontend IP address *
NewIP (To be created)
Frontend port range start *
81
Current number of machines in backend pool
1
Maximum number of machines in backend pool *
2
Backend port *
80
Protocol
TCP
UDP
Enable TCP Reset
Idle timeout (minutes) *
4
Save
Cancel
Give feedback

Need to be modify LB rules





This is VM1



This is VM2

Module 7: Assignment - 2

Azure 104 Certification Course

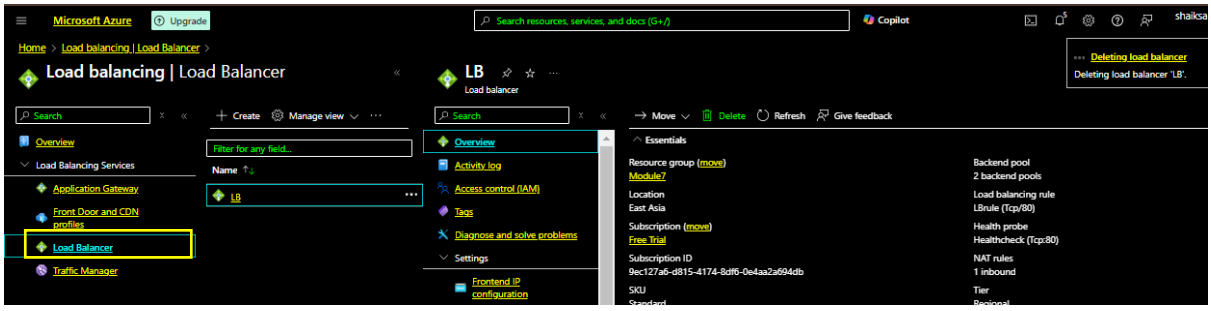
IntelliPaat

Tasks To Be Performed:

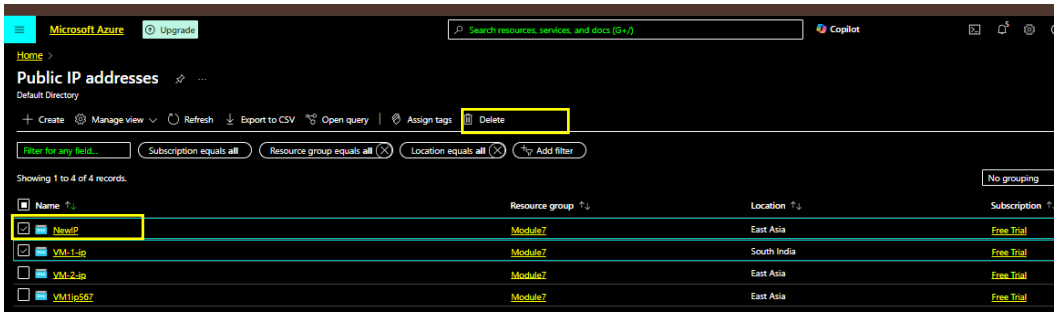
Create an application gateway with the following configuration:

a. /vm1 should point to VM1
b. /vm2 should point to VM2

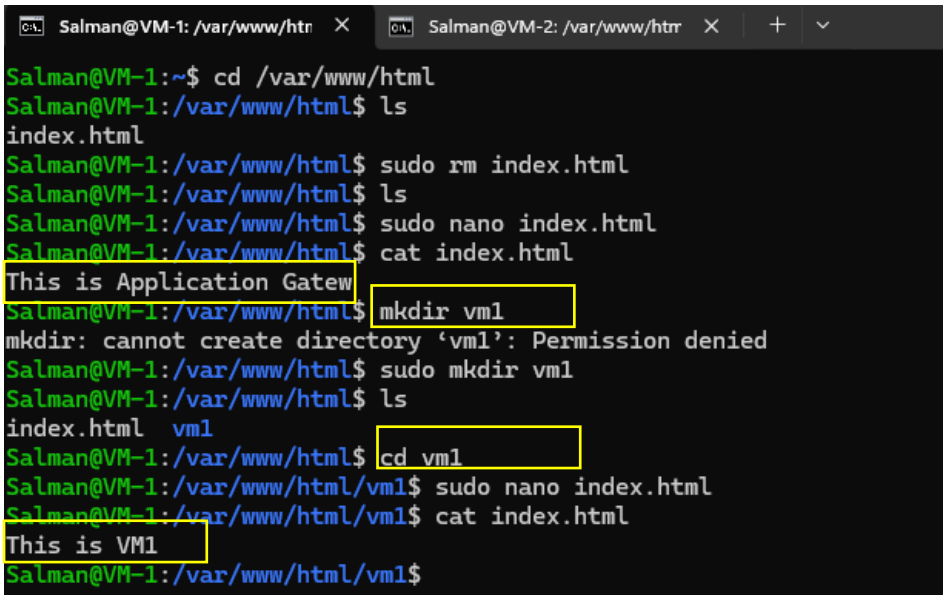
Delete load balancer previously created, Connect to the machines vm1 and vm2

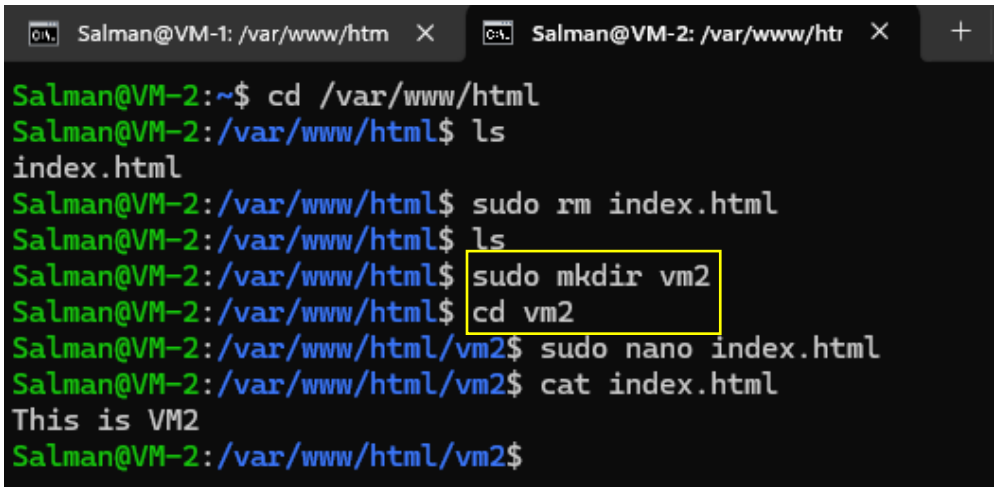


Delete

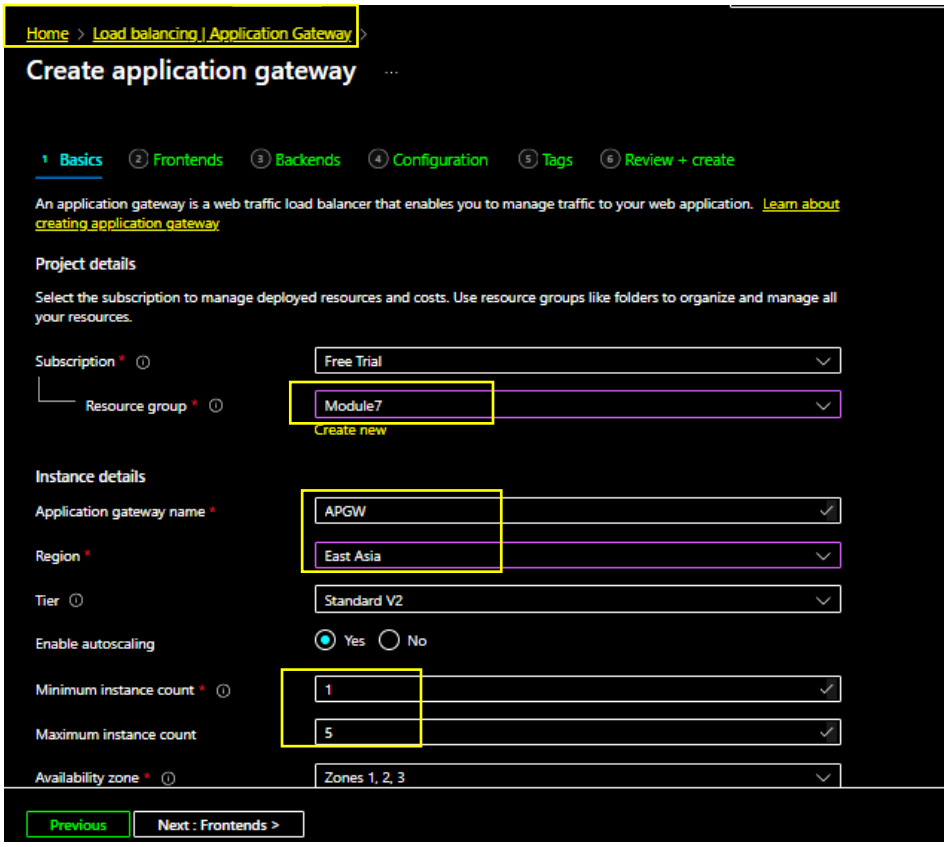


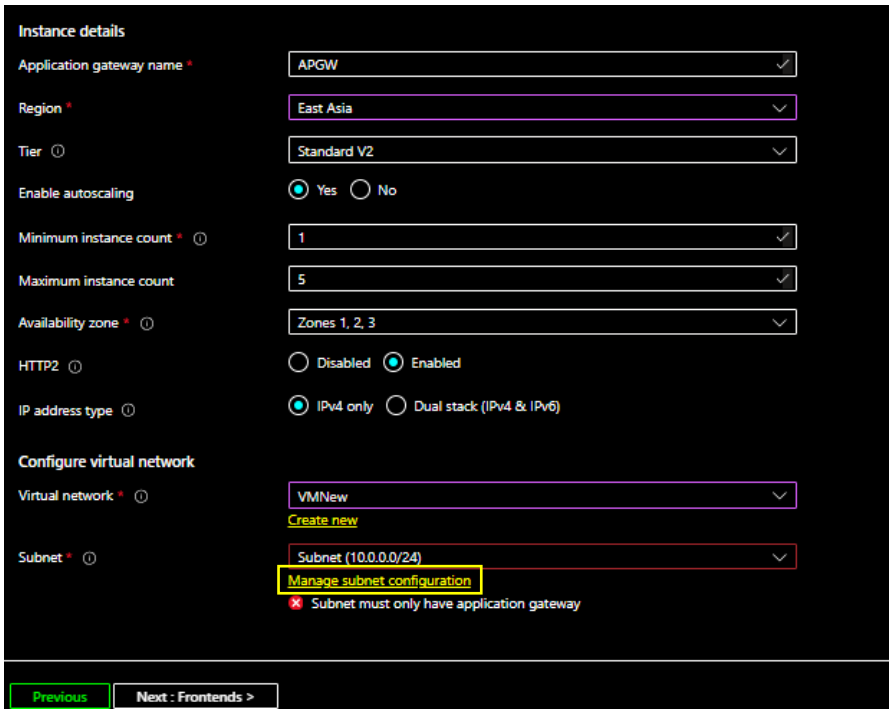
Create directory Vm1 and create 1 file inside it

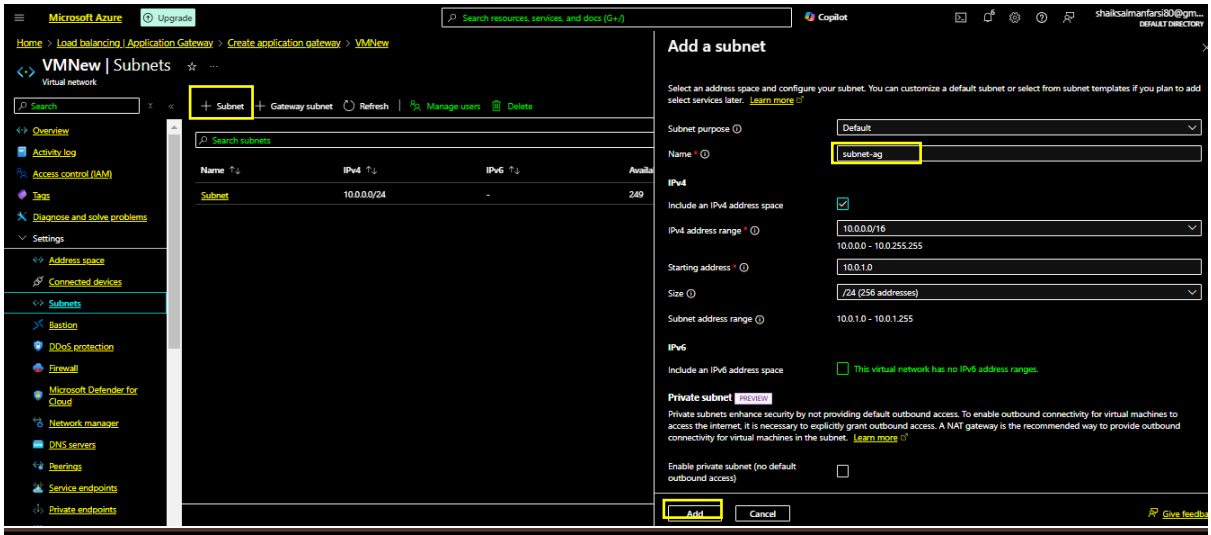


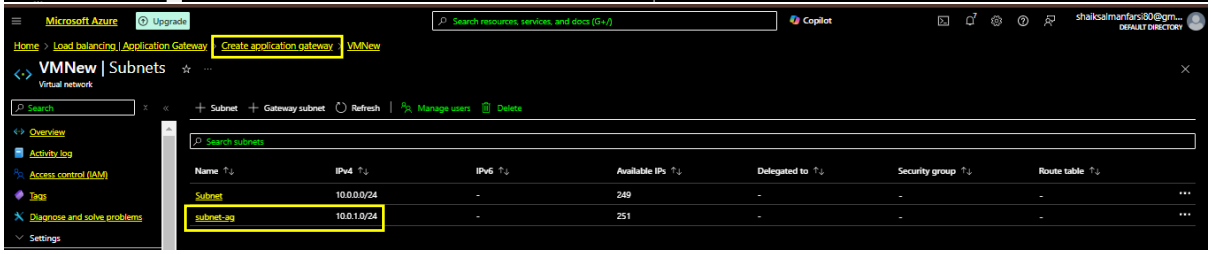


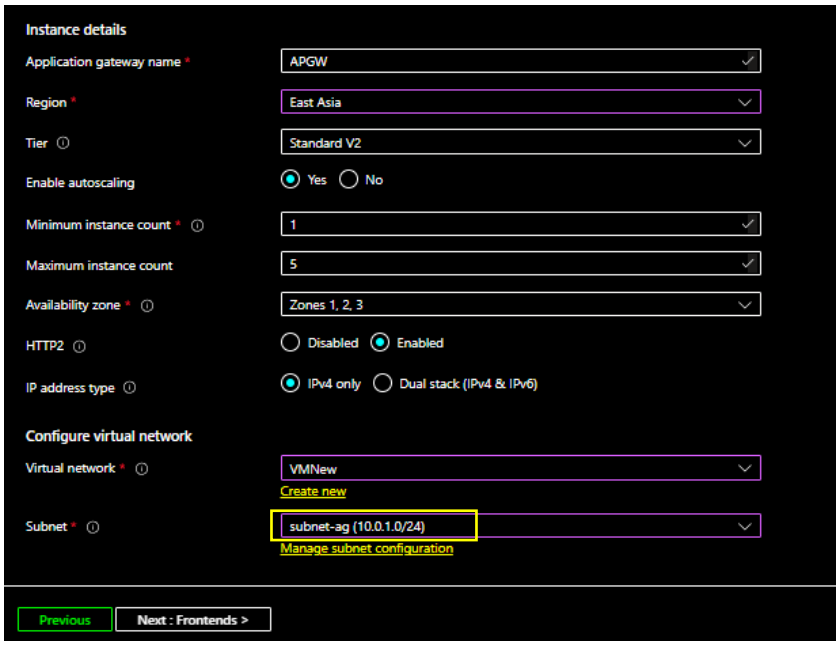
Create application gateway

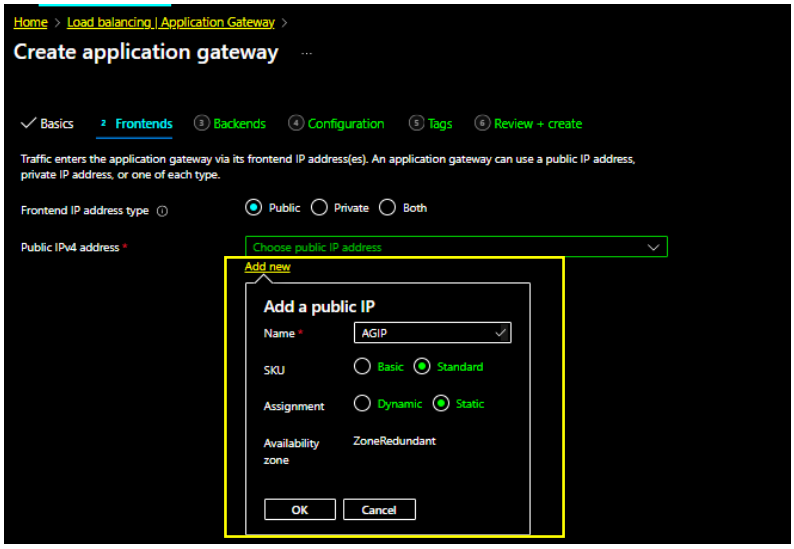




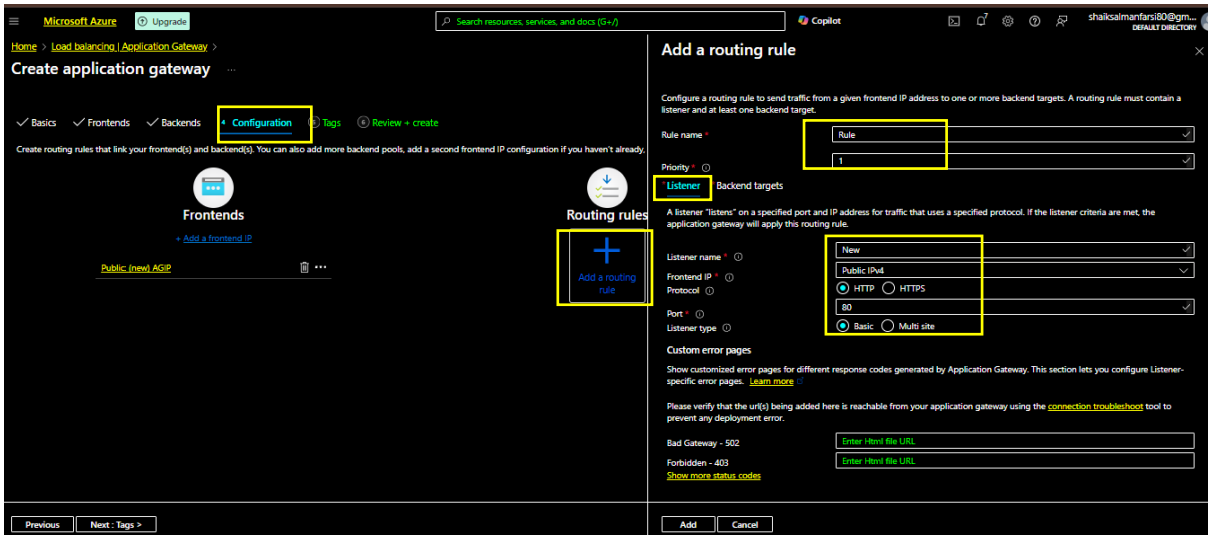

Microsoft Azure
Upgrade
Search resources, services, and docs (G+/)
Copilot
shaiksalmanfarsi80@gm...
DEFAULT DIRECTORY
Home > Load balancing | Application Gateway > Create application gateway > VMNew
VMNew | Subnets
Virtual network
Search
Subnet
Gateway subnet
Refresh
Manage users
Delete
Overview
Activity log
Access control (IAM)
Tags
Diagnose and solve problems
Settings
Address space
Connected devices
Subnets
Bastion
DDoS protection
Firewall
Microsoft Defender for Cloud
Network manager
DNS servers
Peerings
Service endpoints
Private endpoints
Search subnets
Name
IPv4
IPv6
Subnet
10.0.0.0/24
249
Add a subnet
Select an address space and configure your subnet. You can customize a default subnet or select from subnet templates if you plan to add select services later. Learn more
Subnet purpose
Default
Name *
subnet-ag
IPv4
Include an IPv4 address space
IPv4 address range *
10.0.0.0/16
10.0.0.0 - 10.0.255.255
Starting address *
10.0.1.0
Size
/24 (256 addresses)
Subnet address range
10.0.1.0 - 10.0.1.255
IPv6
Include an IPv6 address space
This virtual network has no IPv6 address ranges.
Private subnet PREVIEW
Private subnets enhance security by not providing default outbound access. To enable outbound connectivity for virtual machines to access the internet, it is necessary to explicitly grant outbound access. A NAT gateway is the recommended way to provide outbound connectivity for virtual machines in the subnet. Learn more
Enable private subnet (no default outbound access)
Add
Cancel
Give feedback

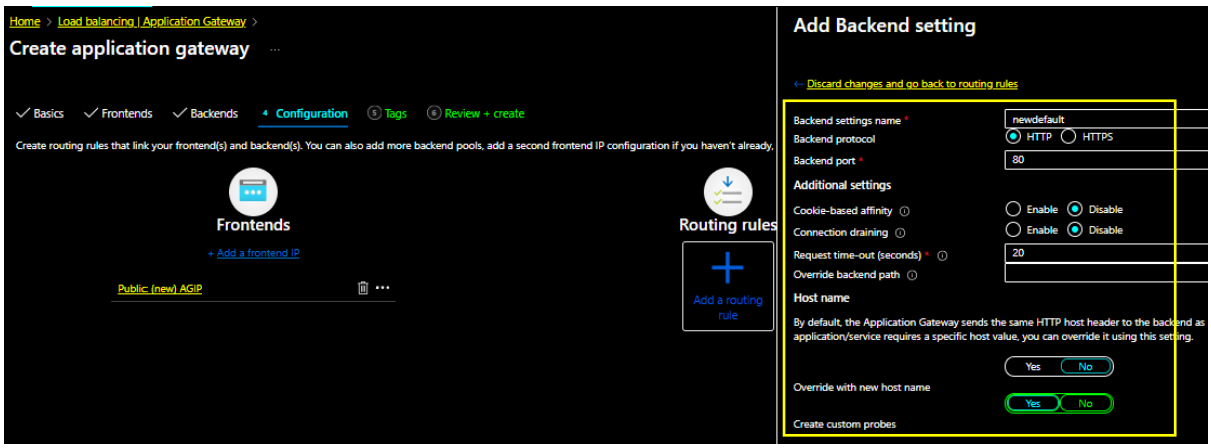

Microsoft Azure
Upgrade
Search resources, services, and docs (G+/)
Copilot
shaiksalmanfarsi80@gm...
DEFAULT DIRECTORY
Home > Load balancing | Application Gateway > Create application gateway > VMNew
VMNew | Subnets
Virtual network
Search
Subnet
Gateway subnet
Refresh
Manage users
Delete
Overview
Activity log
Access control (IAM)
Tags
Diagnose and solve problems
Settings
Search subnets
Name
IPv4
IPv6
Available IPs
Delegated to
Security group
Route table
Subnet
10.0.0.0/24
249
subnet-ag
10.0.1.0/24
251


Instance details
Application gateway name *
APGW
Region *
East Asia
Tier
Standard V2
Enable autoscaling
Yes
No
Minimum instance count *
1
Maximum instance count
5
Availability zone *
Zones 1, 2, 3
HTTP2
Disabled
Enabled
IP address type
IPv4 only
Dual stack (IPv4 & IPv6)
Configure virtual network
Virtual network *
VMNew
Create new
Subnet *
subnet-ag (10.0.1.0/24)
Manage subnet configuration
Previous
Next : Frontends >

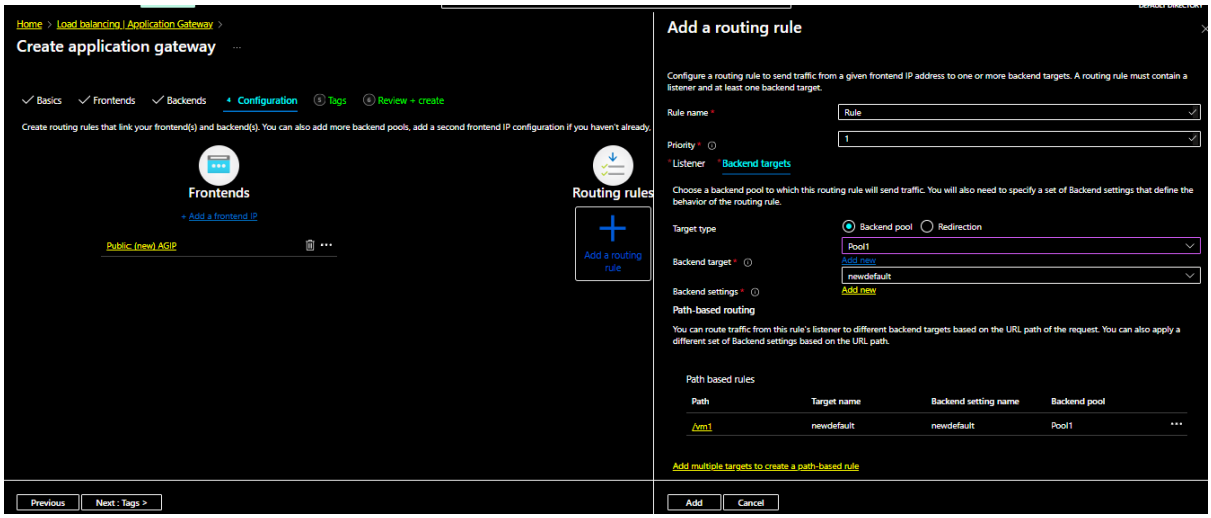

Home > Load balancing | Application Gateway >
Create application gateway
Basics
Frontends
Backends
Configuration
Tags
Review + create
Traffic enters the application gateway via its frontend IP address(es). An application gateway can use a public IP address, private IP address, or one of each type.
Frontend IP address type
Public
Private
Both
Public IPv4 address *
Choose public IP address
Add new
Add a public IP
Name *
AGIP
SKU
Basic
Standard
Assignment
Dynamic
Static
Availability zone
ZoneRedundant
OK
Cancel

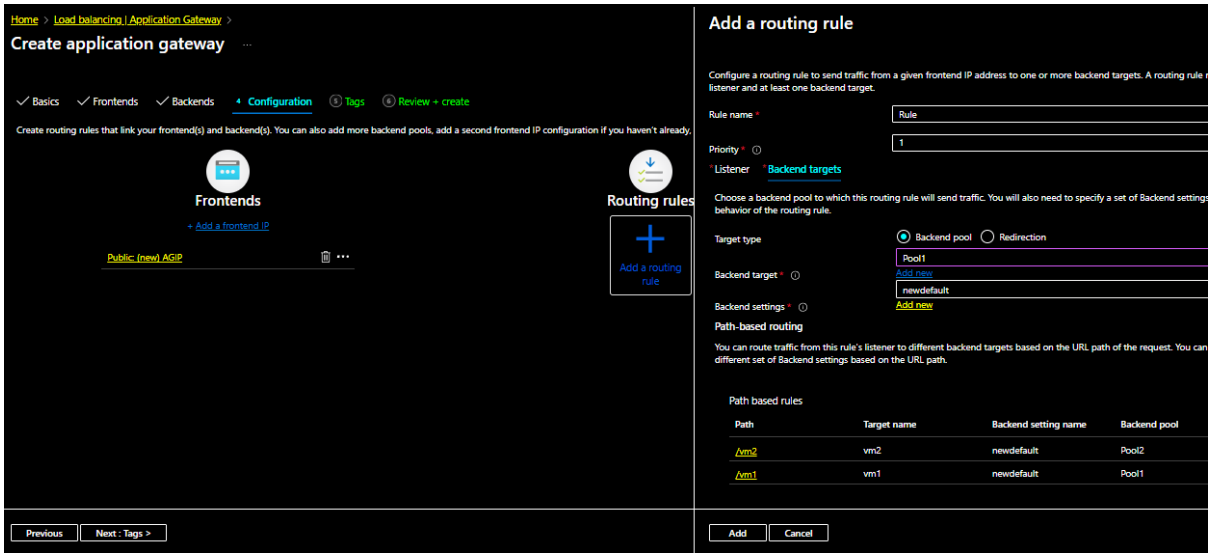

Microsoft Azure
Upgrade
Search resources, services, and docs (G+/)
Copilot
shaiksalmanfarsi80@gm...
DEFAULT DIRECTORY
Home > Load balancing | Application Gateway >
Create application gateway
Basics
Frontends
Backends
Configuration
Tags
Review + create
A backend pool is a collection of resources to which your application gateway can send traffic. A backend pool can contain virtual machines, virtual machine scale sets, app services, IP addresses, or fully qualified domain names (FQDN).
Add a backend pool
Backend pool
Targets
Pool1
1 target
Add a backend pool.
A backend pool is a collection of resources to which your application gateway can send traffic. A backend pool can contain virtual machines, virtual machines scale sets, IP addresses, domain names, or an App Service.
Name *
Pool2
Add backend pool without targets
Yes
No
Backend targets
1 item
Target type
Target
Virtual machine
vm-2614 (10.0.0.5)
IP address or FQDN

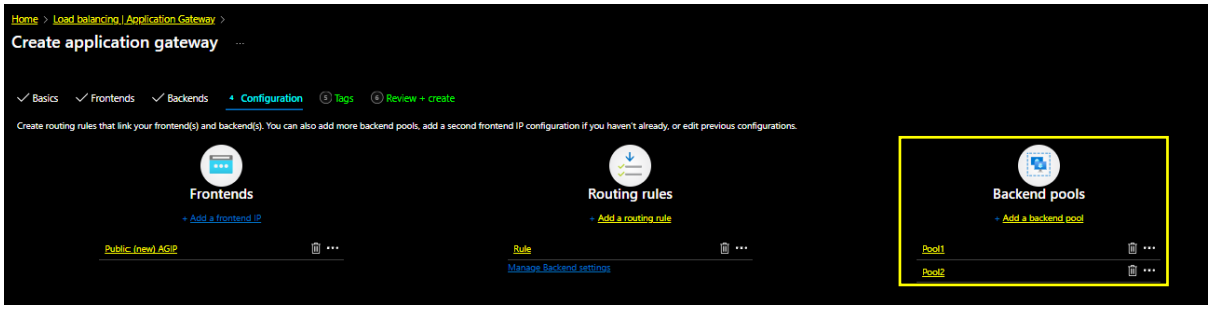

Microsoft Azure
Upgrade
Search resources, services, and docs (G+/)
Copilot
shaiksalmanfarsi80@gm...
DEFAULT DIRECTORY
Home > Load balancing | Application Gateway >
Create application gateway
Basics
Frontends
Backends
Configuration
Tags
Review + create
Create routing rules that link your frontend(s) and backend(s). You can also add more backend pools, add a second frontend IP configuration if you haven't already.
Frontends
+ Add a frontend IP
Public (new) AGIP
Routing rules
Add a routing rule
Previous
Next : Tags >
Add a routing rule
Configure a routing rule to send traffic from a given frontend IP address to one or more backend targets. A routing rule must contain a listener and at least one backend target.
Rule name *
Rule
Priority *
1
Listener
Backend targets
A listener "listens" on a specified port and IP address for traffic that uses a specified protocol. If the listener criteria are met, the application gateway will apply this routing rule.
Listener name *
New
Frontend IP *
Public IPv4
Protocol
HTTP
HTTPS
Port *
80
Listener type
Basic
Multi site
Custom error pages
Show customized error pages for different response codes generated by Application Gateway. This section lets you configure Listener-specific error pages. Learn more
Please verify that the url(s) being added here is reachable from your application gateway using the connection troubleshoot tool to prevent any deployment error.
Bad Gateway - 502
Enter Html file URL
Forbidden - 403
Enter Html file URL
Show more status codes
Add
Cancel

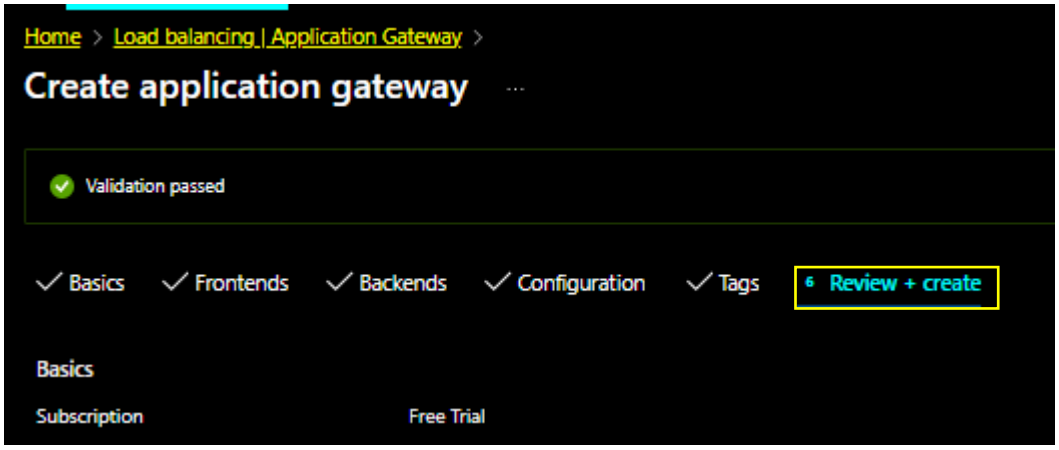

Home > Load balancing | Application Gateway >
Create application gateway
Basics
Frontends
Backends
Configuration
Tags
Review + create
Create routing rules that link your frontend(s) and backend(s). You can also add more backend pools, add a second frontend IP configuration if you haven't already.
Frontends
+ Add a frontend IP
Public (new) AGIP
Routing rules
Add a routing rule
Add Backend setting
Discard changes and go back to routing rules
Backend settings name *
newdefault
Backend protocol
HTTP
HTTPS
Backend port *
80
Additional settings
Cookie-based affinity
Enable
Disable
Connection draining
Enable
Disable
Request time-out (seconds) *
20
Override backend path
Host name
By default, the Application Gateway sends the same HTTP host header to the backend as application/service requires a specific host value, you can override it using this setting.
Override with new host name
Yes
No
Create custom probes
Yes
No

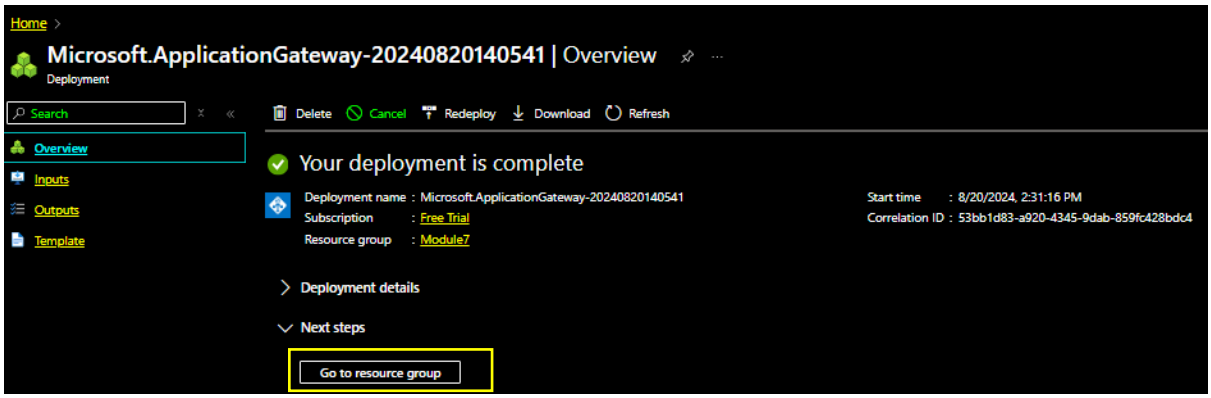

Microsoft Azure
Upgrade
Search resources, services, and docs (G+/)
Copilot
Home > Load balancing | Application Gateway >
Create application gateway
Basics
Frontends
Backends
Configuration
Tags
Review + create
Create routing rules that link your frontend(s) and backend(s). You can also add more backend pools, add a second frontend IP configuration if you haven't already.
Frontends
+ Add a frontend IP
Public (new) AGIP
Routing rules
Add a routing rule
Add a path
Discard changes and go back to routing rules
Target type
Backend pool
Redirection
Path *
/vm1
Target name *
newdefault
Backend settings *
newdefault
Add new
Backend target *
Pool1
Add new

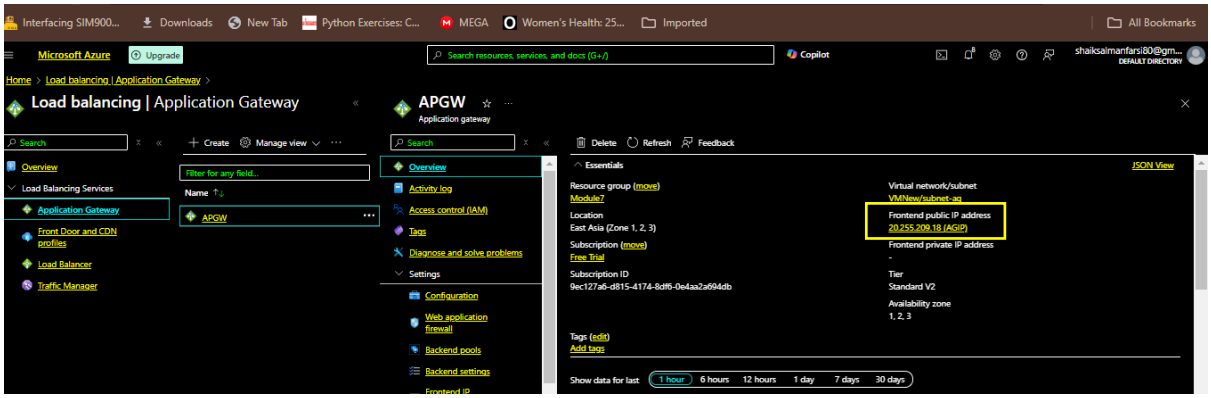

Home > Load balancing | Application Gateway >
Create application gateway
Basics
Frontends
Backends
Configuration
Tags
Review + create
Create routing rules that link your frontend(s) and backend(s). You can also add more backend pools, add a second frontend IP configuration if you haven't already.
Frontends
+ Add a frontend IP
Public (new) AGIP
Routing rules
Add a routing rule
Previous
Next : Tags >
Add a routing rule
Configure a routing rule to send traffic from a given frontend IP address to one or more backend targets. A routing rule must contain a listener and at least one backend target.
Rule name *
Rule
Priority *
1
Listener
Backend targets
Choose a backend pool to which this routing rule will send traffic. You will also need to specify a set of Backend settings that define the behavior of the routing rule.
Target type
Backend pool
Redirection
Pool1
Backend target *
Add new
newdefault
Backend settings *
Add new
Path-based routing
You can route traffic from this rule's listener to different backend targets based on the URL path of the request. You can also apply a different set of Backend settings based on the URL path.
Path based rules
Path
Target name
Backend setting name
Backend pool
/vm1
newdefault
newdefault
Pool1
Add multiple targets to create a path-based rule
Add
Cancel


Home > Load balancing | Application Gateway >
Create application gateway
Basics
Frontends
Backends
Configuration
Tags
Review + create
Create routing rules that link your frontend(s) and backend(s). You can also add more backend pools, add a second frontend IP configuration if you haven't already.
Frontends
+ Add a frontend IP
Public (new) AGIP
Routing rules
Add a routing rule
Previous
Next : Tags >
Add a routing rule
Configure a routing rule to send traffic from a given frontend IP address to one or more backend targets. A routing rule
listener and at least one backend target.
Rule name *
Rule
Priority *
1
Listener
Backend targets
Choose a backend pool to which this routing rule will send traffic. You will also need to specify a set of Backend settings
behavior of the routing rule.
Target type
Backend pool
Redirection
Pool1
Backend target *
Add new
newdefault
Backend settings *
Add new
Path-based routing
You can route traffic from this rule's listener to different backend targets based on the URL path of the request. You can
different set of Backend settings based on the URL path.
Path based rules
Path
Target name
Backend setting name
Backend pool
/vm2
vm2
newdefault
Pool2
/vm1
vm1
newdefault
Pool1
Add
Cancel

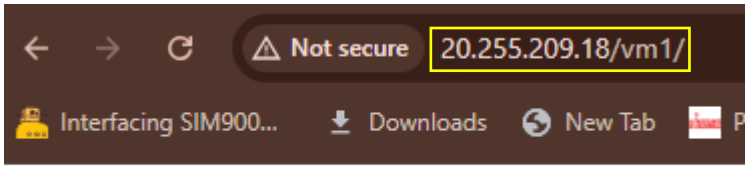

Home > Load balancing | Application Gateway >
Create application gateway
Basics
Frontends
Backends
Configuration
Tags
Review + create
Create routing rules that link your frontend(s) and backend(s). You can also add more backend pools, add a second frontend IP configuration if you haven't already, or edit previous configurations.
Frontends
+ Add a frontend IP
Public (new) AGIP
Routing rules
+ Add a routing rule
Rule
Manage Backend settings
Backend pools
+ Add a backend pool
Pool1
Pool2



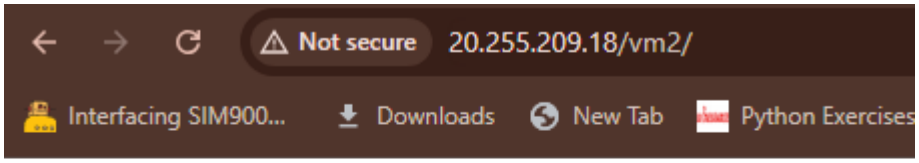




This is Application Gatew



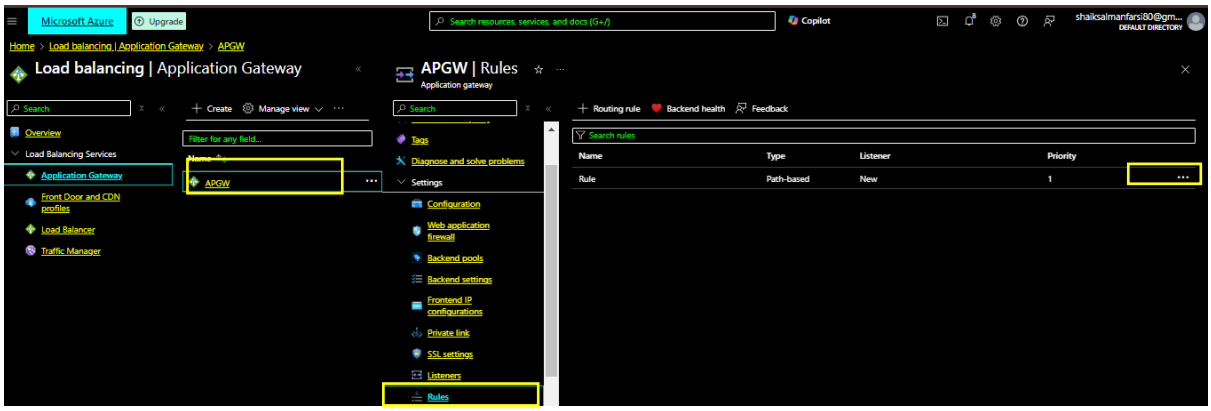
This is VM1



Not Found

The requested URL was not found on this server.

Apache/2.4.58 (Ubuntu) Server at 20.255.209.18 Port 80



This is VM2

Module 7: Assignment - 3

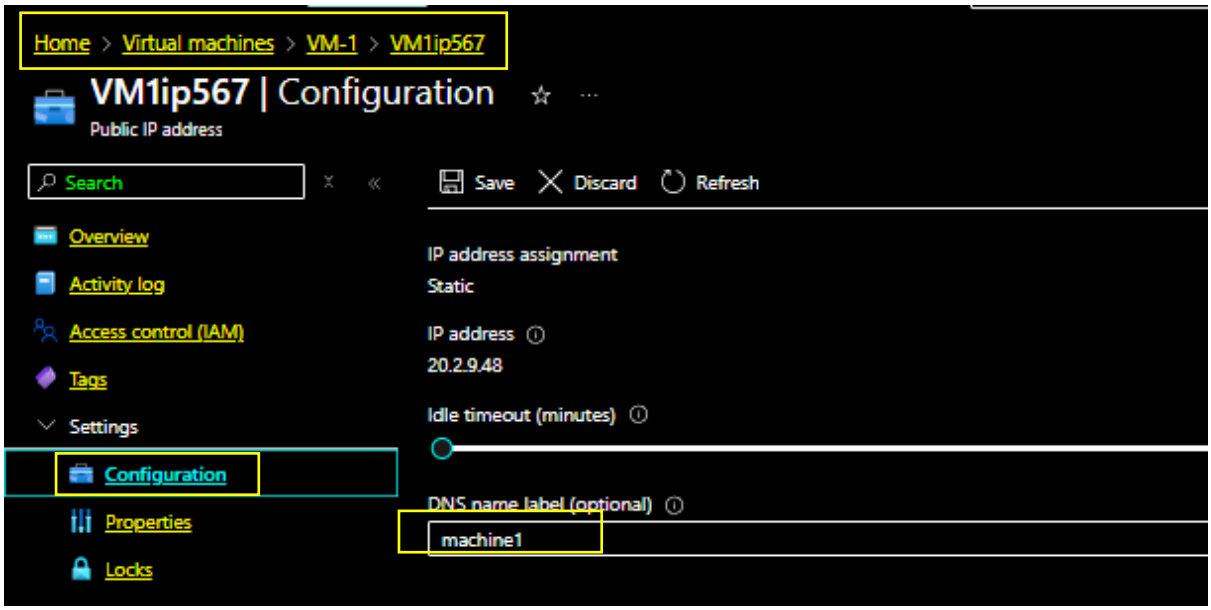
Azure 104 Certification Course

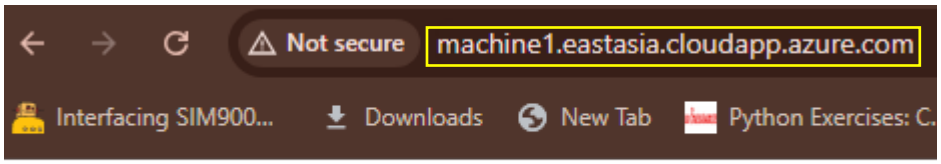
IntelliPaat

Tasks To Be Performed:

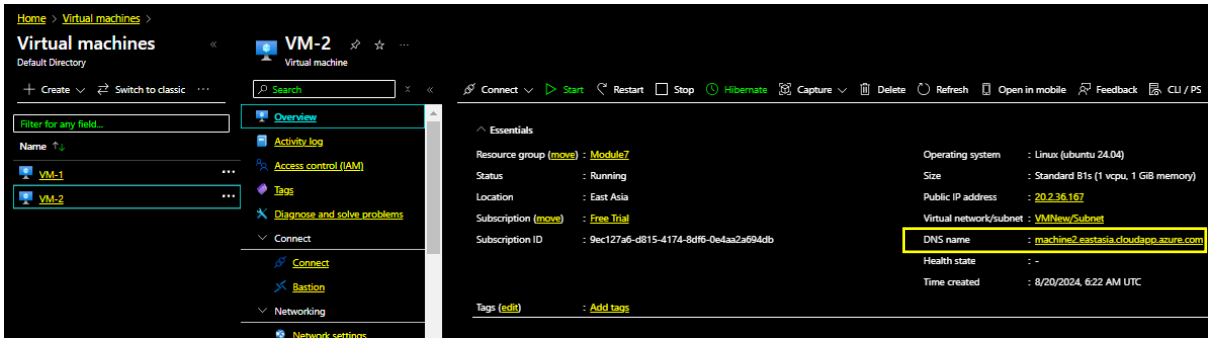
1. For the two VMs deployed previously configure DNS for the public IPs of the VM

Create new DNS and save

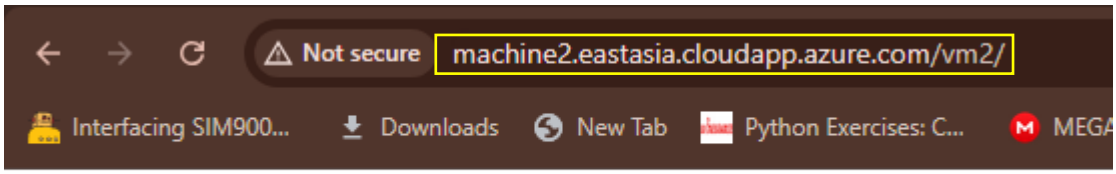




This is Application Gatew



Go to the DNS directory



This is VM2

Module 7: Assignment - 4

Azure 104 Certification Course

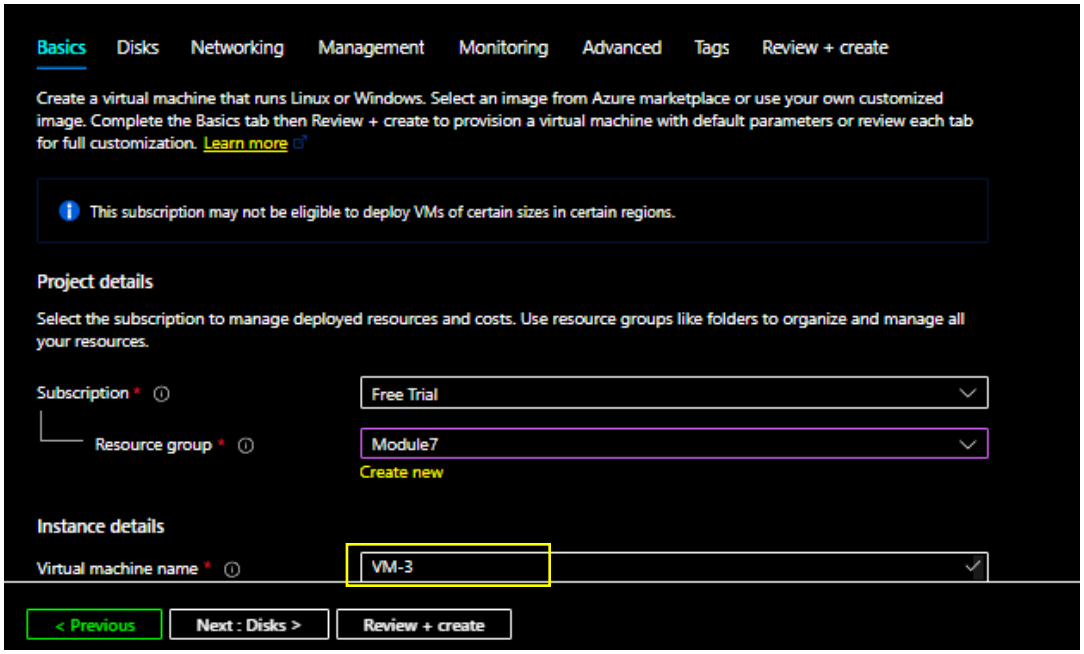
IntelliPaat

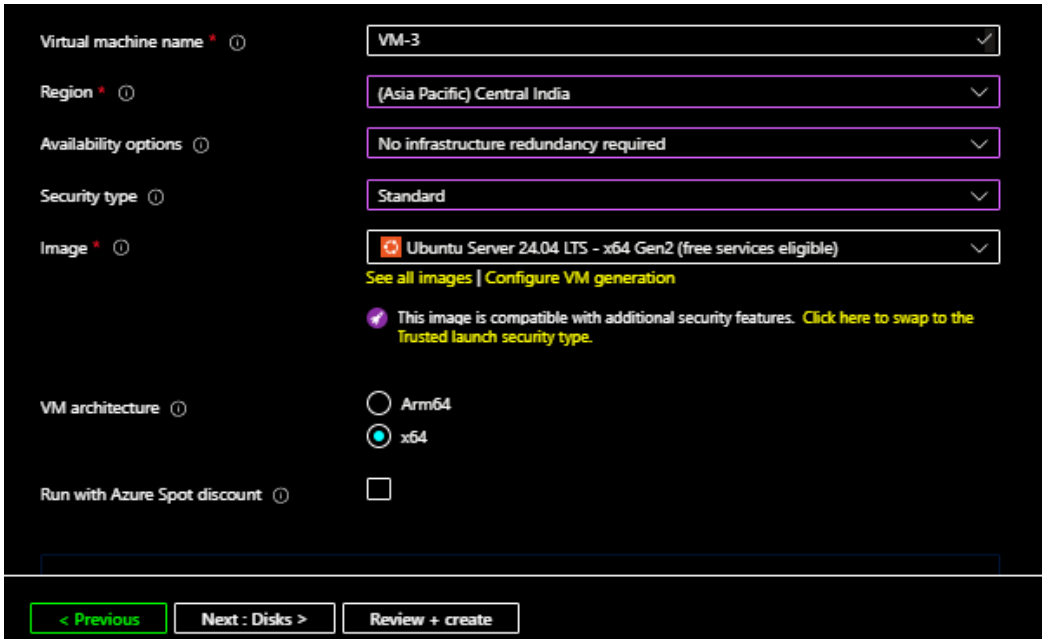
Tasks To Be Performed:

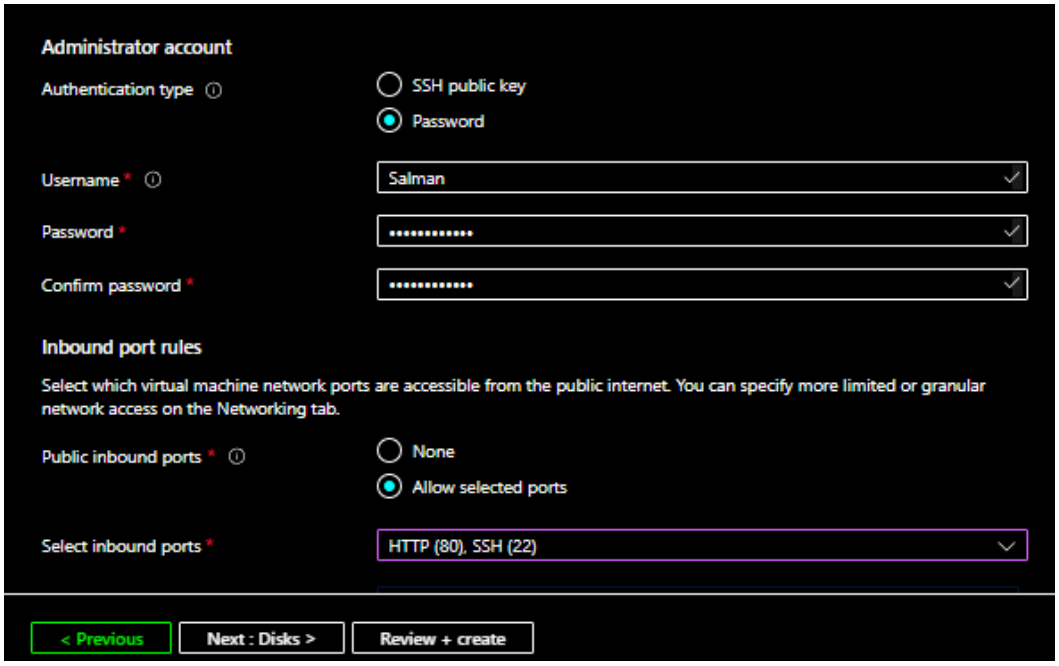
1. Deploy 2 VMs in different regions
2. Balance the load on these VMs geographically

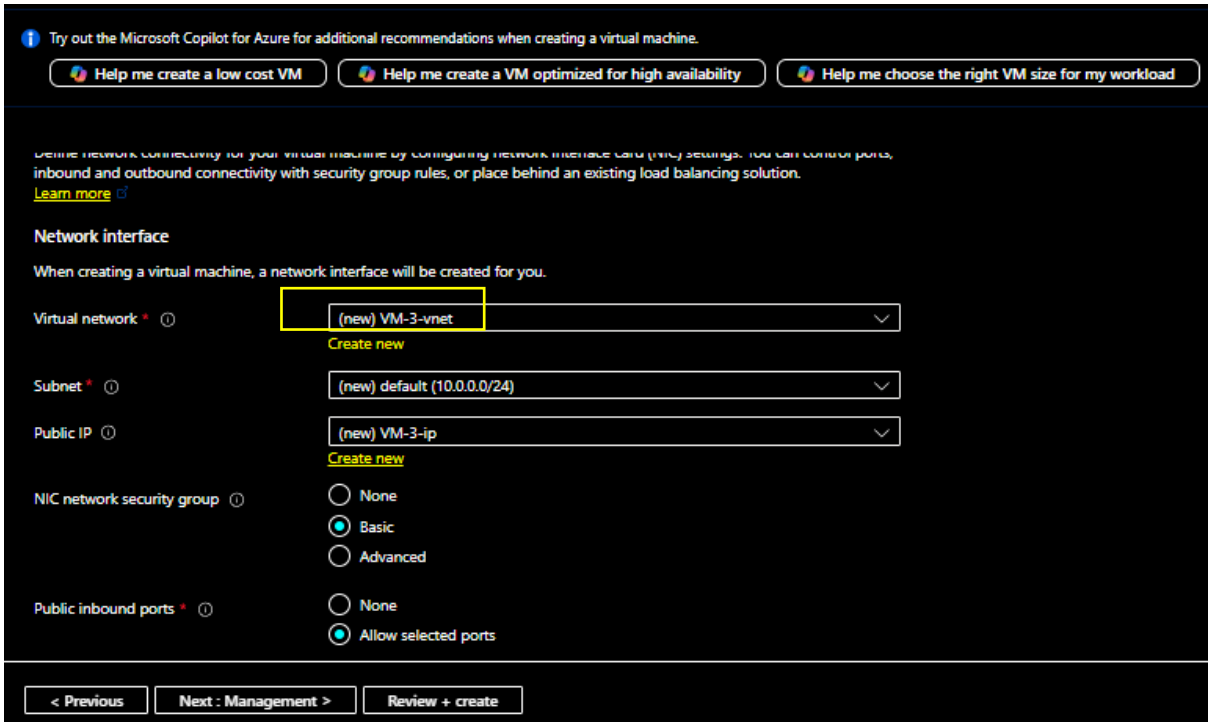
To accomplish this please use Azure Traffic Manager

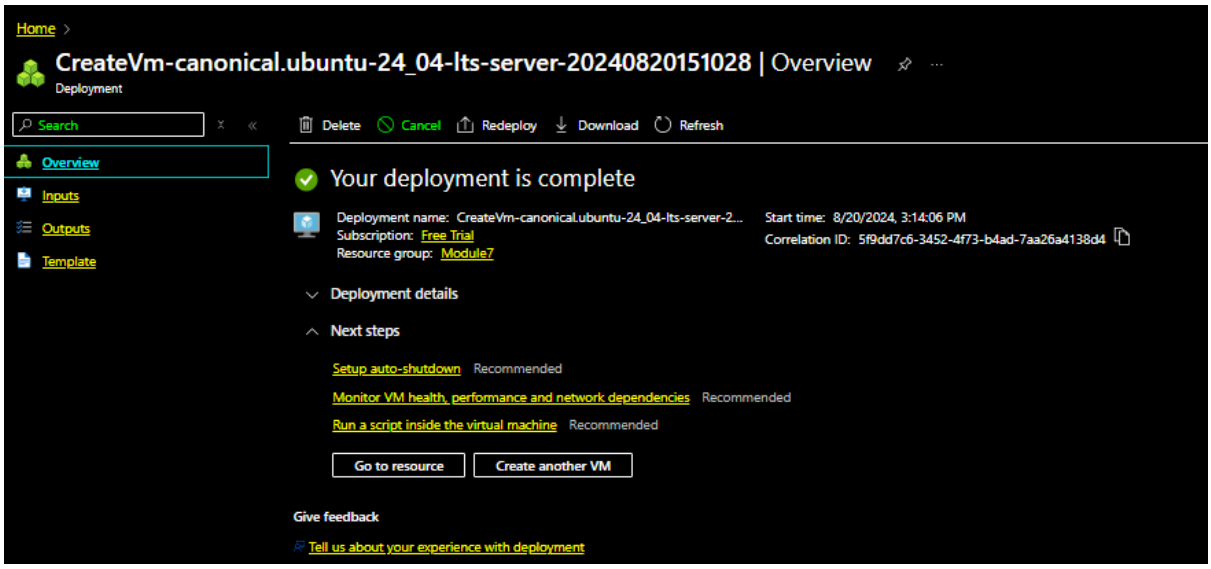
As the previous VMs are of same regions, lets create one more VM-3 with different region



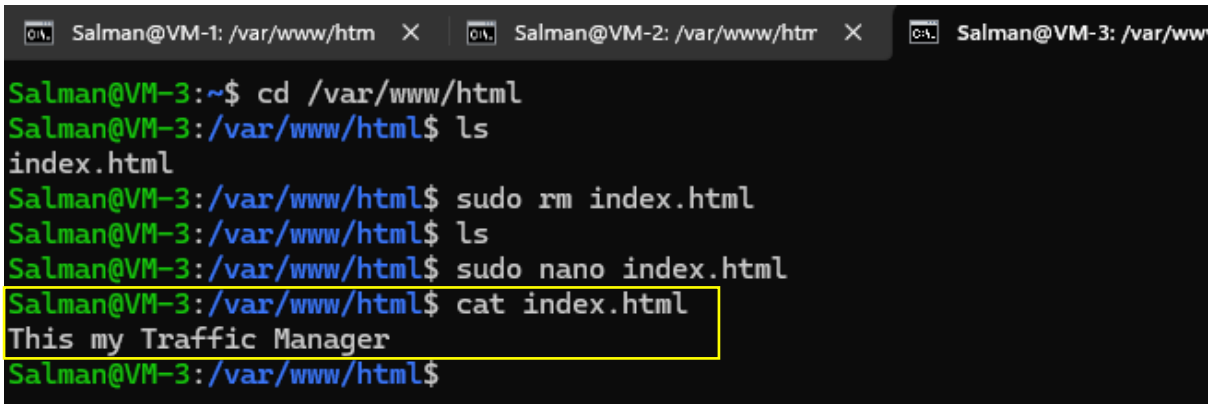

Virtual machine name *
VM-3
Region *
(Asia Pacific) Central India
Availability options
No infrastructure redundancy required
Security type
Standard
Image *
Ubuntu Server 24.04 LTS - x64 Gen2 (free services eligible)
See all images | Configure VM generation
This image is compatible with additional security features. Click here to swap to the Trusted launch security type.
VM architecture
Arm64
x64
Run with Azure Spot discount
< Previous
Next : Disks >
Review + create


Administrator account
Authentication type
SSH public key
Password
Username *
Salman
Password *
Confirm password *
Inbound port rules
Select which virtual machine network ports are accessible from the public internet. You can specify more limited or granular network access on the Networking tab.
Public inbound ports *
None
Allow selected ports
Select inbound ports *
HTTP (80), SSH (22)
< Previous
Next : Disks >
Review + create

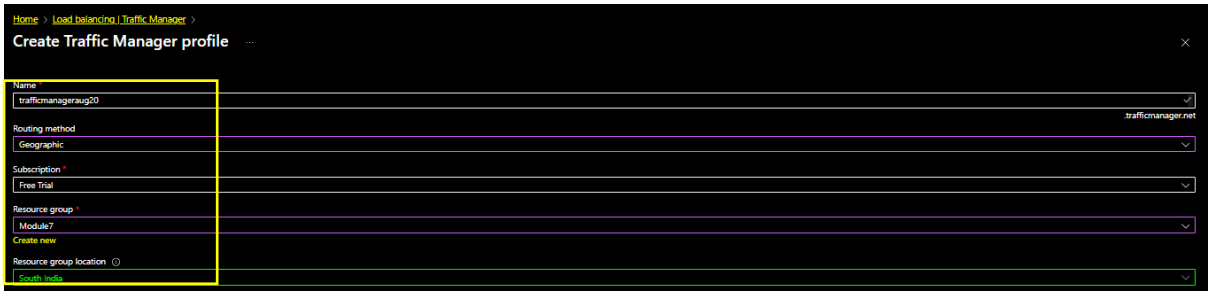


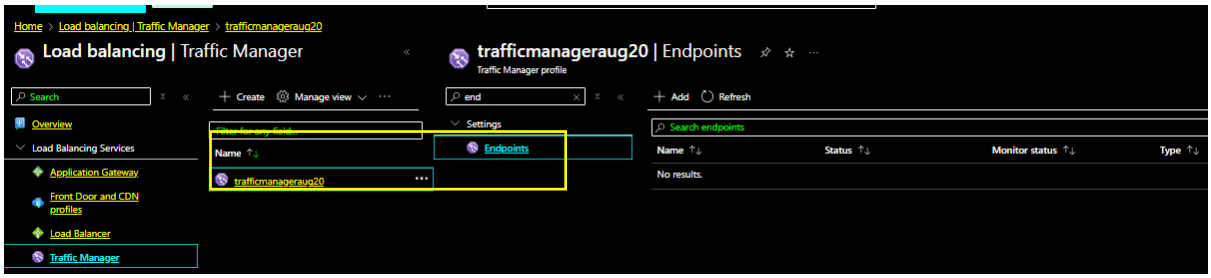


Connect to the machine and update, Install apache2 server, Go inside the html path, remove the existing html file and create new one for traffic manager

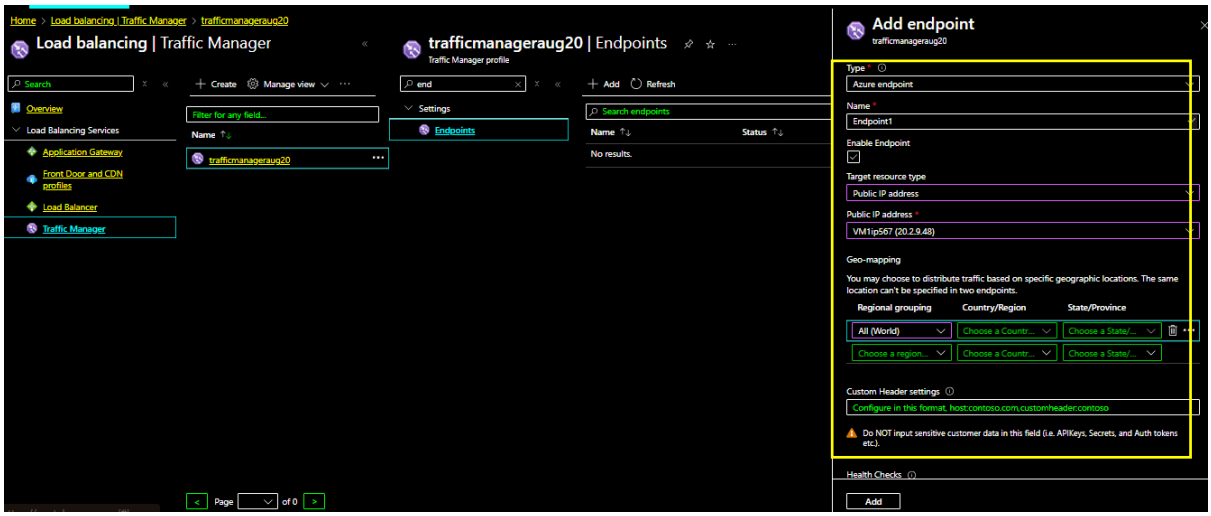


Now go to load balancer and create traffic manager

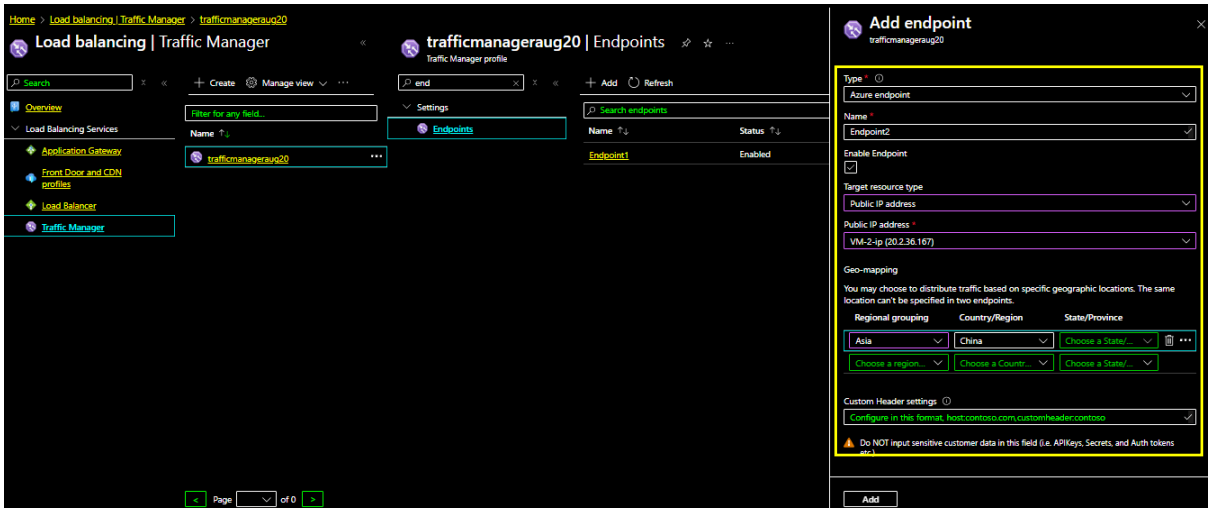




Now we have to create endpoints between 2 vms, for VM1

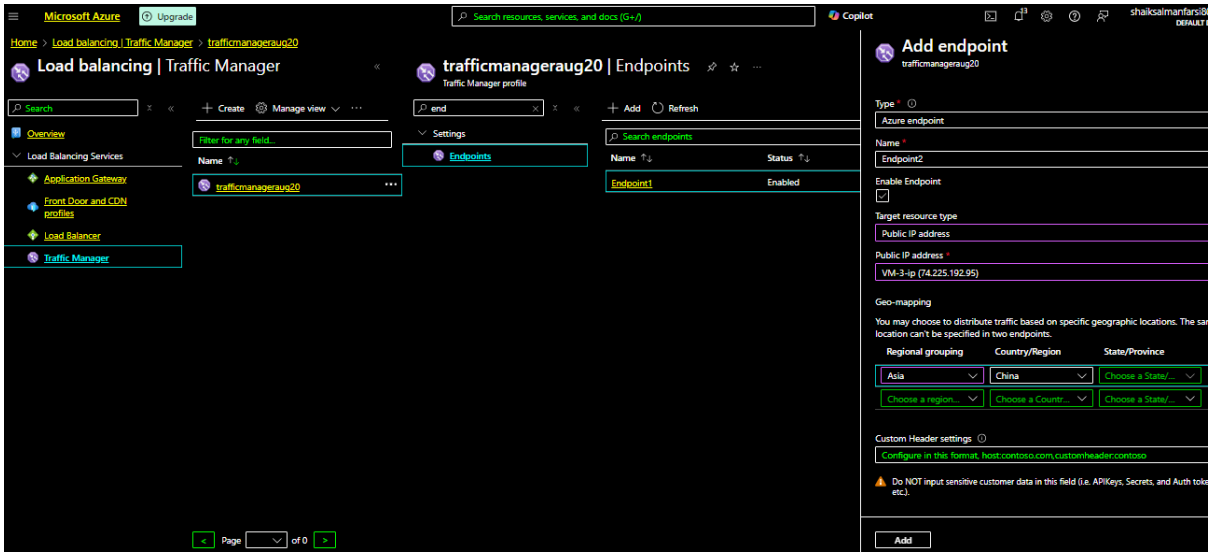


For VM2

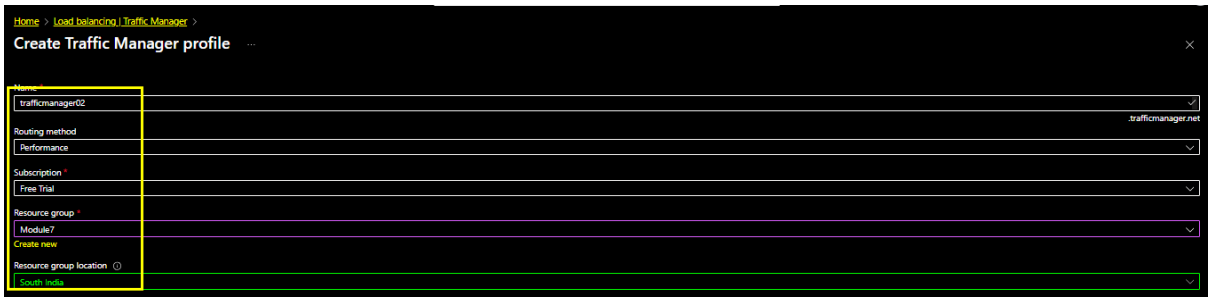


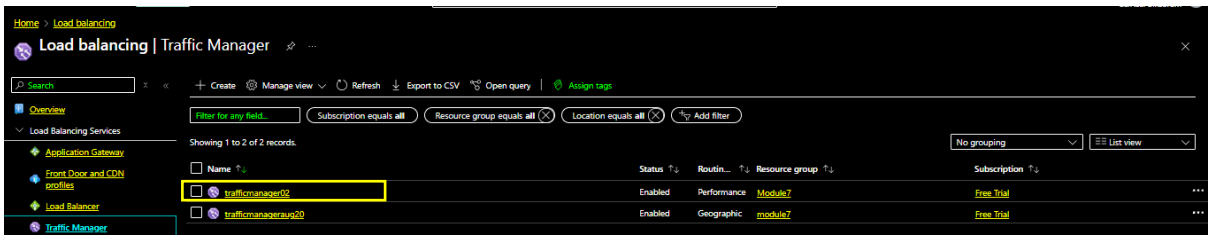
Create DNS Name for VM-3

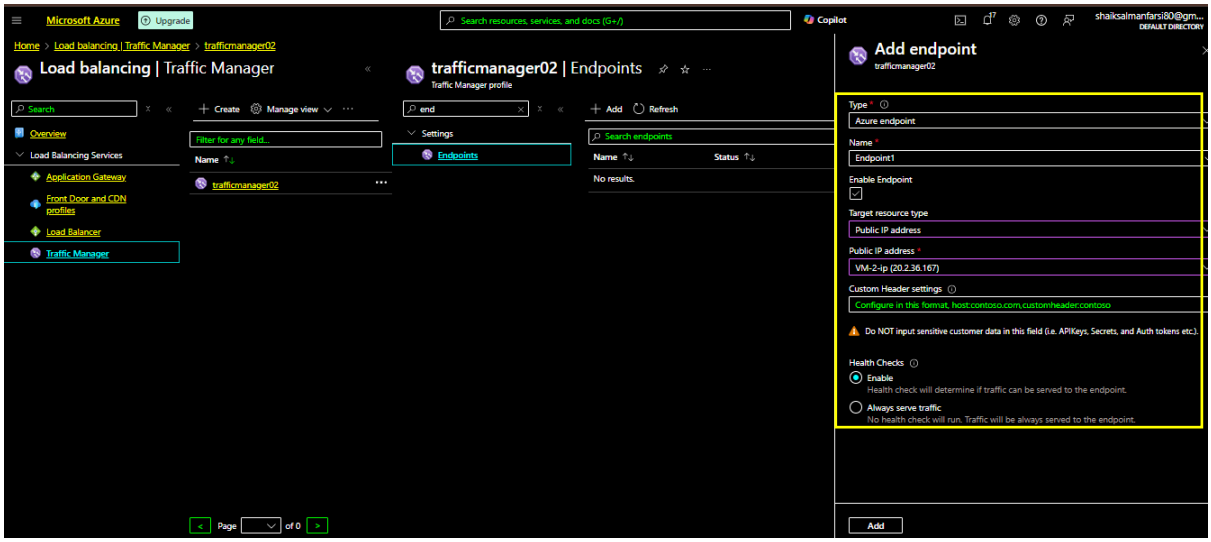
Delete it VM-1 and Create endpoint for VM-3

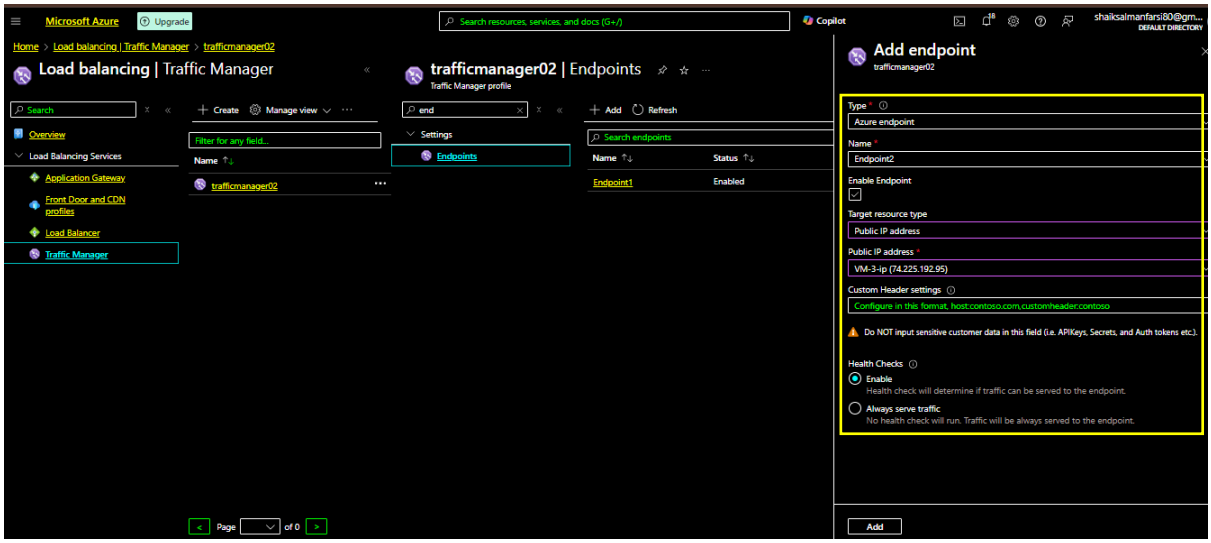


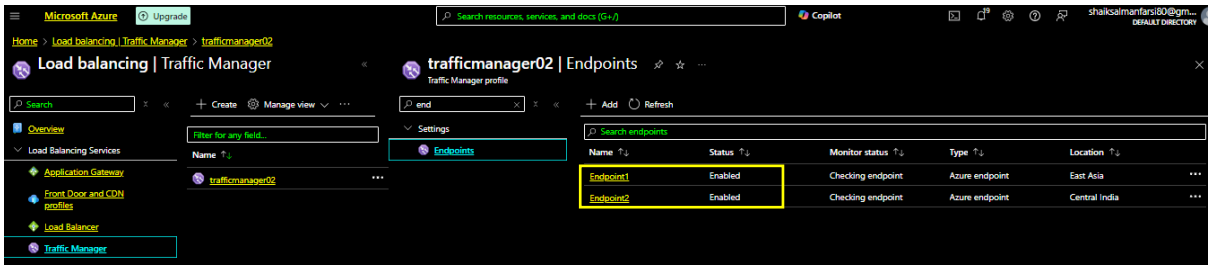
As we have created geographic routing method, it is limited to one region so create new traffic manager with routing method as performance

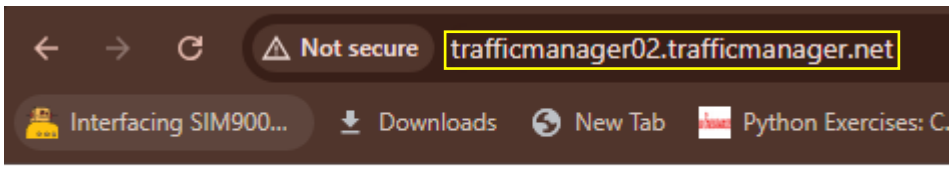




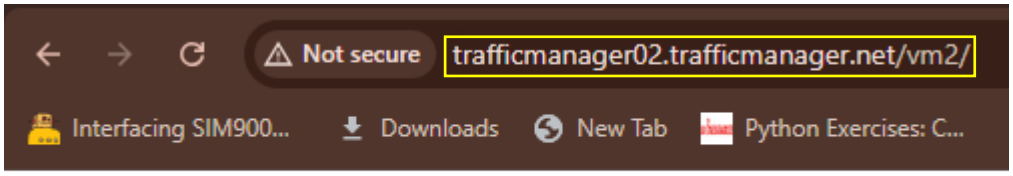








This my Traffic Manager



This is VM2

Module 7: Assignment - 5

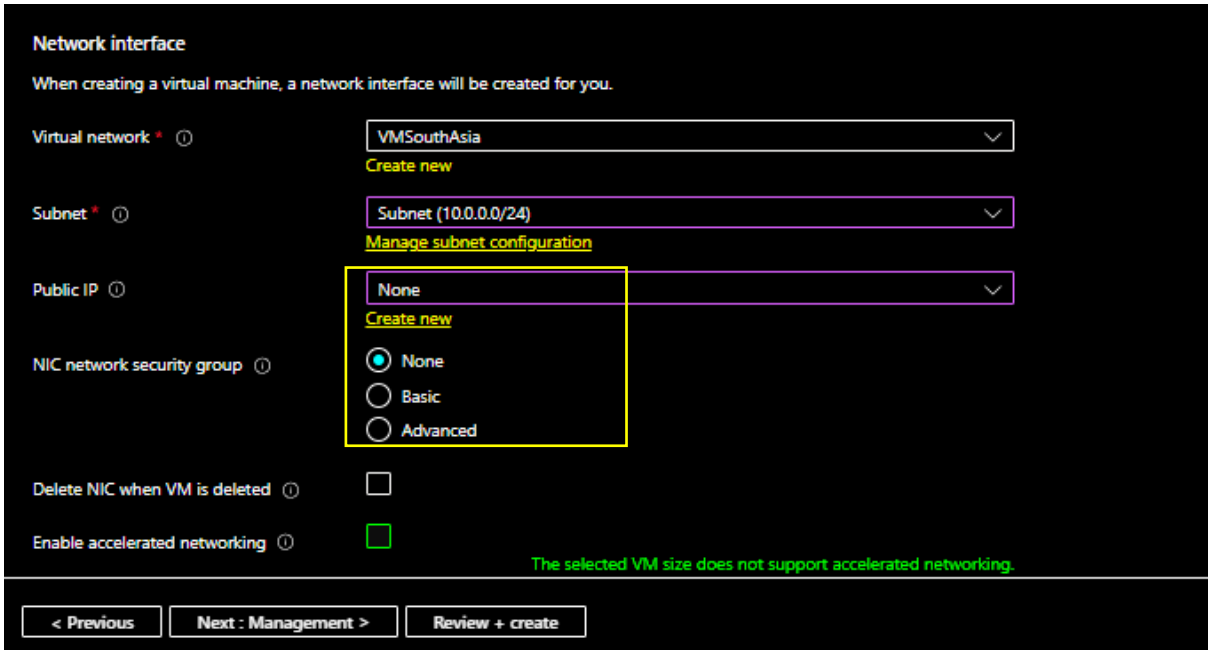
Azure 104 Certification Course

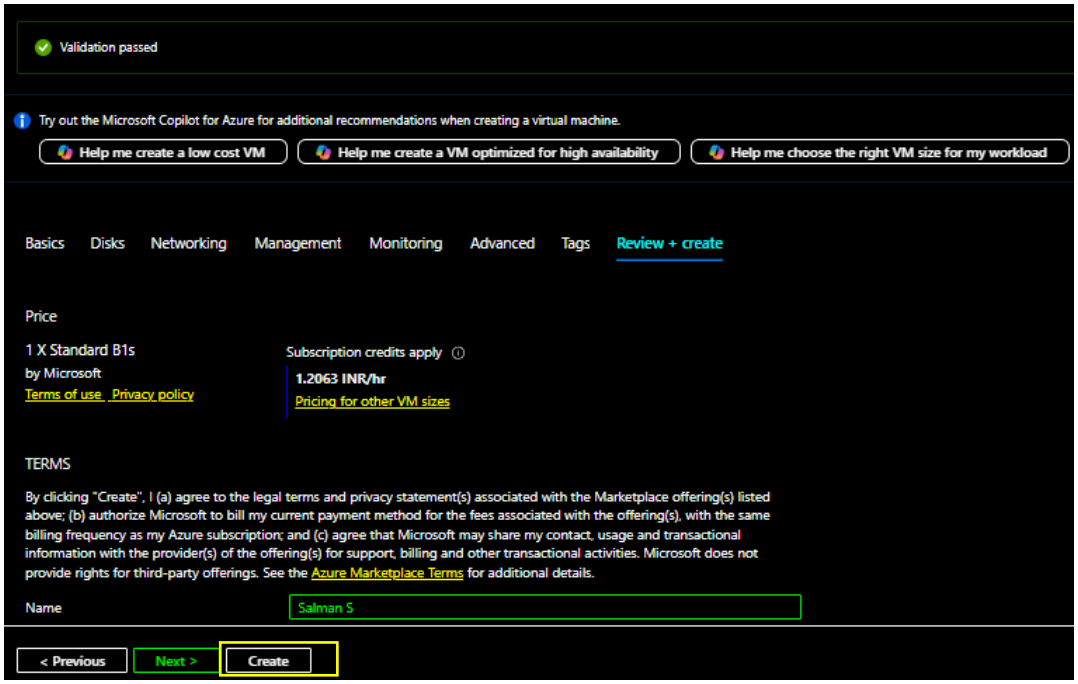
IntelliPaat

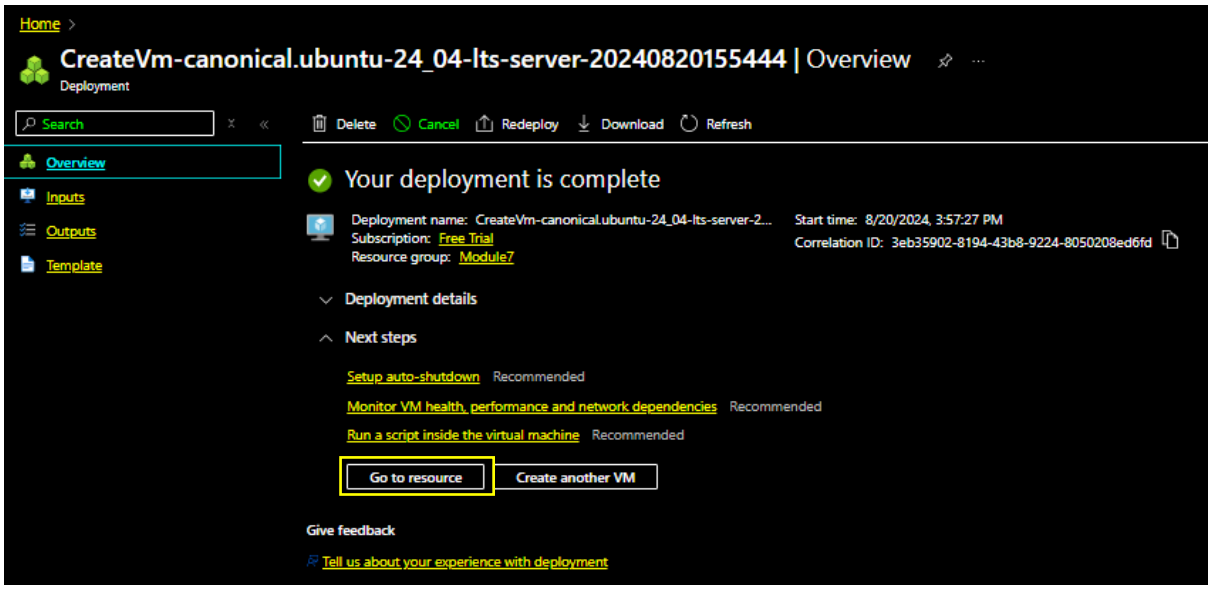
Tasks To Be Performed:

1. Create a VM without public IP address
2. Connect to this VM using bastion host

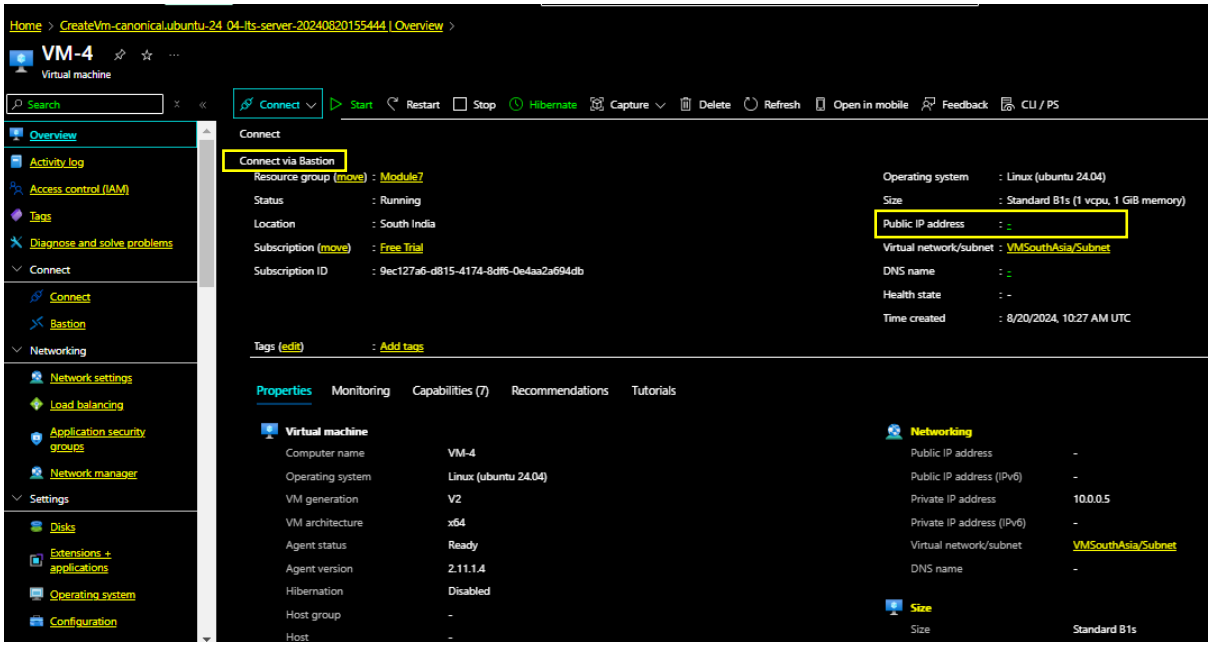
Create new VM and disable public IP



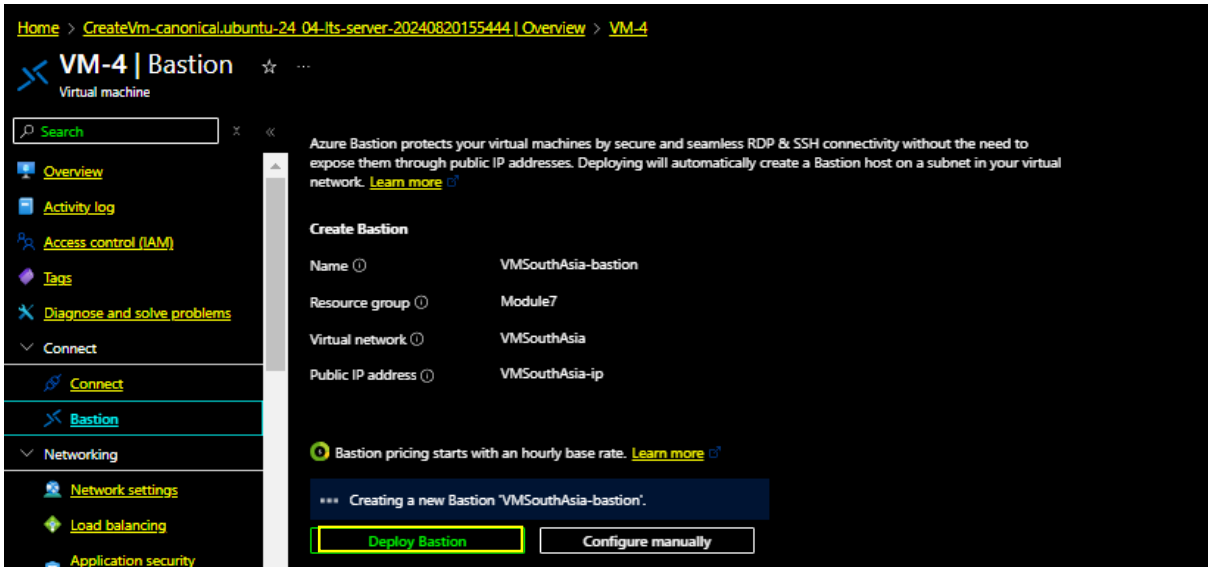

Validation passed
Try out the Microsoft Copilot for Azure for additional recommendations when creating a virtual machine.
Help me create a low cost VM
Help me create a VM optimized for high availability
Help me choose the right VM size for my workload
Basics
Disks
Networking
Management
Monitoring
Advanced
Tags
Review + create
Price
1 X Standard B1s
by Microsoft
Terms of use
Privacy policy
Subscription credits apply
1.2063 INR/hr
Pricing for other VM sizes
TERMS
By clicking "Create", I (a) agree to the legal terms and privacy statement(s) associated with the Marketplace offering(s) listed above; (b) authorize Microsoft to bill my current payment method for the fees associated with the offering(s), with the same billing frequency as my Azure subscription; and (c) agree that Microsoft may share my contact, usage and transactional information with the provider(s) of the offering(s) for support, billing and other transactional activities. Microsoft does not provide rights for third-party offerings. See the Azure Marketplace Terms for additional details.
Name
Salman S
< Previous
Next >
Create

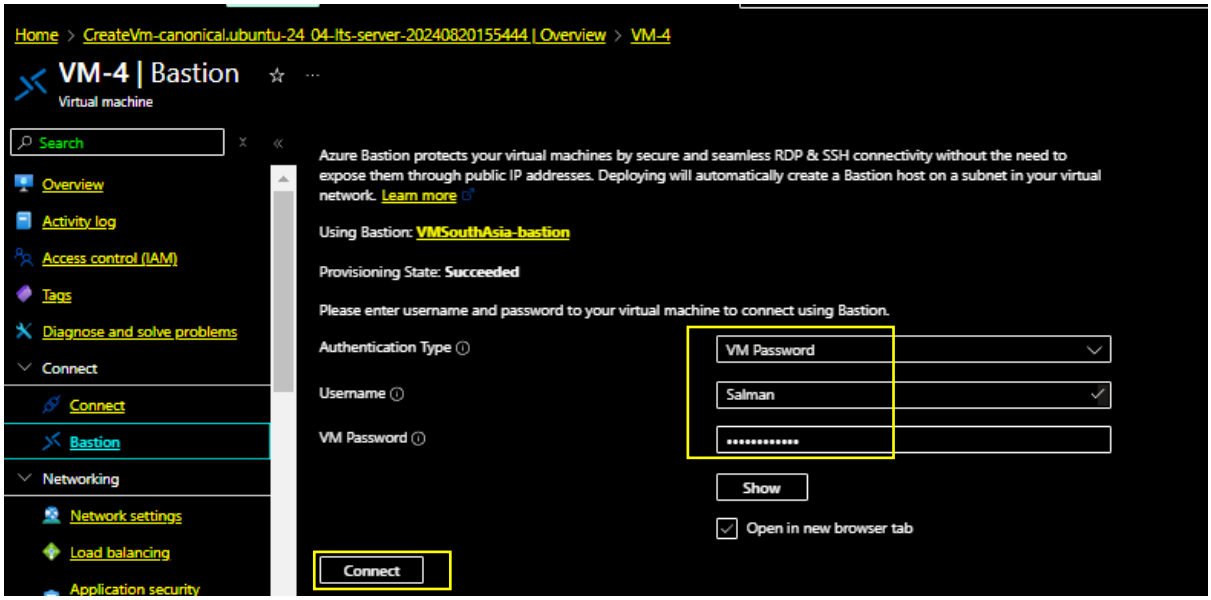

Home
CreateVm-canonical.ubuntu-24_04-lts-server-20240820155444 | Overview
Deployment
Search
Delete
Cancel
Redeploy
Download
Refresh
Overview
Inputs
Outputs
Template
Your deployment is complete
Deployment name: CreateVm-canonical.ubuntu-24_04-lts-server-2...
Subscription: Free Trial
Resource group: Module7
Start time: 8/20/2024, 3:57:27 PM
Correlation ID: 3eb35902-8194-43b8-9224-8050208ed6fd
Deployment details
Next steps
Setup auto-shutdown Recommended
Monitor VM health, performance and network dependencies Recommended
Run a script inside the virtual machine Recommended
Go to resource
Create another VM
Give feedback
Tell us about your experience with deployment

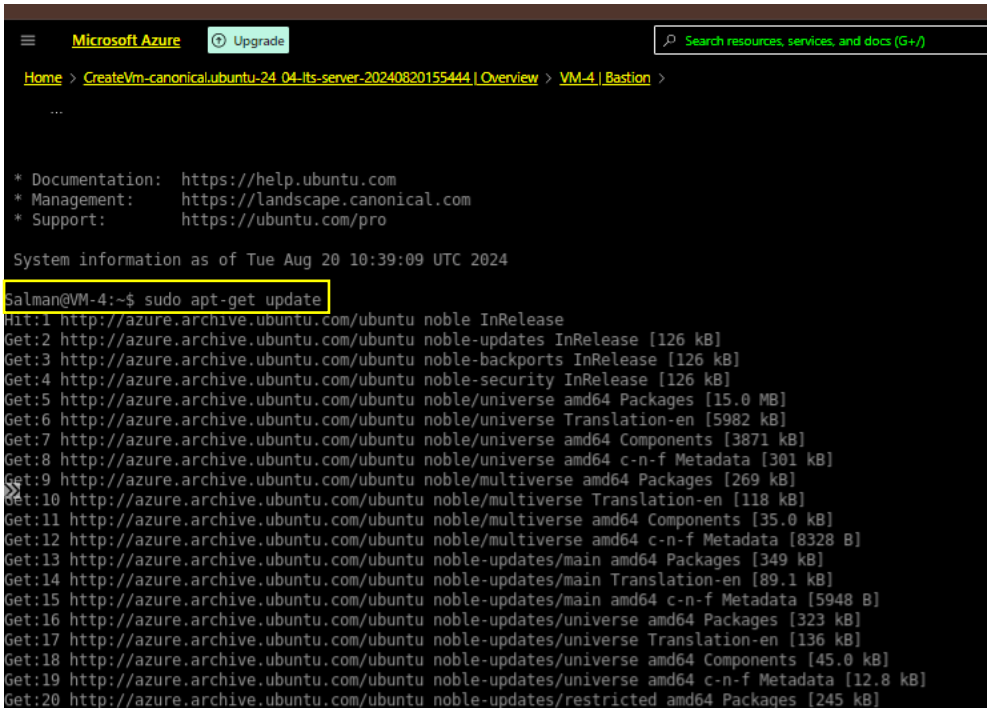
Connect from bastion



Deploy Bastion




Home > CreateVm-canonical.ubuntu-24_04-lts-server-20240820155444 | Overview > VM-4
VM-4 | Bastion
Virtual machine
Search
Overview
Activity log
Access control (IAM)
Tags
Diagnose and solve problems
Connect
Connect
Bastion
Networking
Network settings
Load balancing
Application security
Azure Bastion protects your virtual machines by secure and seamless RDP & SSH connectivity without the need to expose them through public IP addresses. Deploying will automatically create a Bastion host on a subnet in your virtual network. Learn more
Using Bastion: VMSouthAsia-bastion
Provisioning State: Succeeded
Please enter username and password to your virtual machine to connect using Bastion.
Authentication Type
VM Password
Username
Salman
VM Password
Show
Open in new browser tab
Connect


Microsoft Azure
Upgrade
Search resources, services, and docs (G+/)
Home > CreateVm-canonical.ubuntu-24_04-lts-server-20240820155444 | Overview > VM-4 | Bastion >
* Documentation: https://help.ubuntu.com
* Management: https://landscape.canonical.com
* Support: https://ubuntu.com/pro
System information as of Tue Aug 20 10:39:09 UTC 2024
Salman@VM-4:~$ sudo apt-get update
Hit:1 http://azure.archive.ubuntu.com/ubuntu noble InRelease
Get:2 http://azure.archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Get:3 http://azure.archive.ubuntu.com/ubuntu noble-backports InRelease [126 kB]
Get:4 http://azure.archive.ubuntu.com/ubuntu noble-security InRelease [126 kB]
Get:5 http://azure.archive.ubuntu.com/ubuntu noble/universe amd64 Packages [15.0 MB]
Get:6 http://azure.archive.ubuntu.com/ubuntu noble/universe Translation-en [5982 kB]
Get:7 http://azure.archive.ubuntu.com/ubuntu noble/universe amd64 Components [3871 kB]
Get:8 http://azure.archive.ubuntu.com/ubuntu noble/universe amd64 c-n-f Metadata [301 kB]
Get:9 http://azure.archive.ubuntu.com/ubuntu noble/multiverse amd64 Packages [269 kB]
Get:10 http://azure.archive.ubuntu.com/ubuntu noble/multiverse Translation-en [118 kB]
Get:11 http://azure.archive.ubuntu.com/ubuntu noble/multiverse amd64 Components [35.0 kB]
Get:12 http://azure.archive.ubuntu.com/ubuntu noble/multiverse amd64 c-n-f Metadata [8328 B]
Get:13 http://azure.archive.ubuntu.com/ubuntu noble-updates/main amd64 Packages [349 kB]
Get:14 http://azure.archive.ubuntu.com/ubuntu noble-updates/main Translation-en [89.1 kB]
Get:15 http://azure.archive.ubuntu.com/ubuntu noble-updates/main amd64 c-n-f Metadata [5948 B]
Get:16 http://azure.archive.ubuntu.com/ubuntu noble-updates/universe amd64 Packages [323 kB]
Get:17 http://azure.archive.ubuntu.com/ubuntu noble-updates/universe Translation-en [136 kB]
Get:18 http://azure.archive.ubuntu.com/ubuntu noble-updates/universe amd64 Components [45.0 kB]
Get:19 http://azure.archive.ubuntu.com/ubuntu noble-updates/universe amd64 c-n-f Metadata [12.8 kB]
Get:20 http://azure.archive.ubuntu.com/ubuntu noble-updates/restricted amd64 Packages [245 kB]