

Application Gateway

→ It mainly works on url / path based routing

→ Application gateway mainly we use for routing the traffic to the web pages that pages maintained in the different servers.

→ Creating a virtual machine for Home page

The screenshot shows the 'Create a virtual machine' page in the Microsoft Azure portal. The page is titled 'Create a virtual machine' and includes a search bar and a 'Copilot' button. Below the header, there are three help links: 'Help me create a VM optimized for high availability', 'Help me choose the right VM size for my workload', and 'Help me create a low cost VM'. A warning message states: 'Changing Basic options may reset selections you have made. Review all options prior to creating the virtual machine.' The 'Project details' section shows 'Subscription' as 'Azure subscription 1' and 'Resource group' as 'sal-rg'. The 'Instance details' section shows 'Virtual machine name' as 'HomePageServer', 'Region' as '(Asia Pacific) Central India', 'Availability options' as 'No infrastructure redundancy required', 'Security type' as 'Standard', and 'Image' as 'Ubuntu Server 24.04 LTS - x64 Gen2 (free services eligible)'. At the bottom, there are navigation buttons: '< Previous', 'Next > Disks', and 'Review + create'.

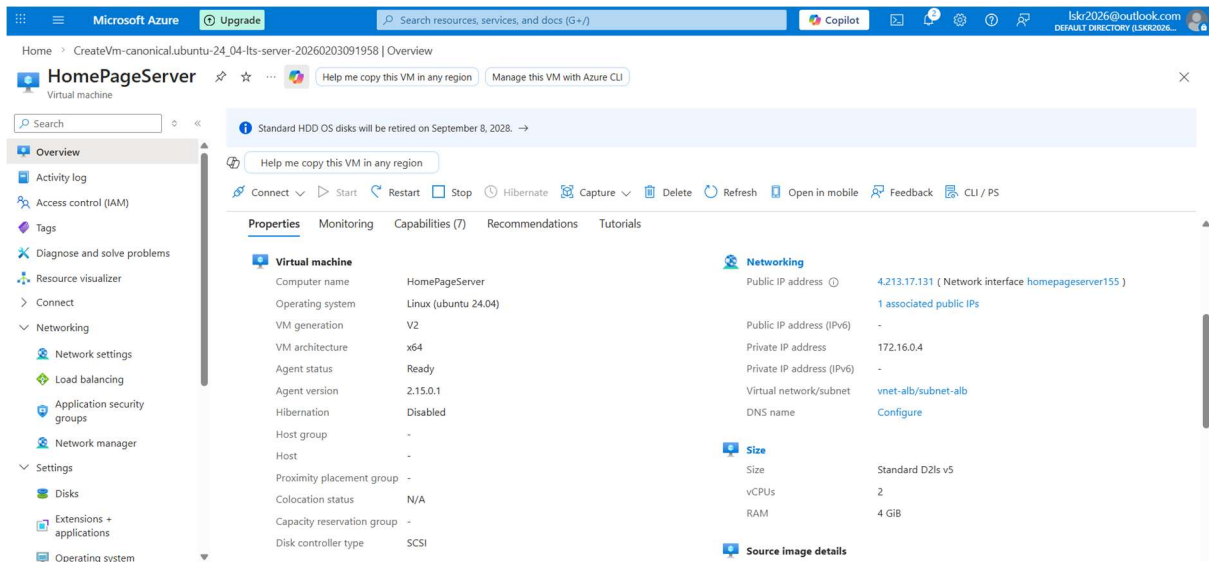
→ Creating and selecting Vnet and subnet for the instance.

→ Here we created two subnets one is for maintaining Vm's.

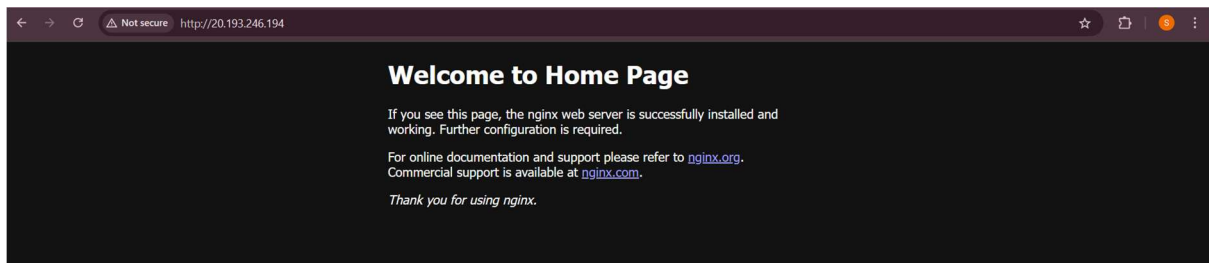
→ We dedicate one subnet for the Application gateway.

The screenshot shows the 'Edit subnet' page in the Microsoft Azure portal. The page is titled 'Edit subnet' and includes a search bar and a 'Copilot' button. Below the header, there are three help links: 'Help me create a VM optimized for high availability', 'Help me choose the right VM size for my workload', and 'Help me create a low cost VM'. A warning message states: 'Changing Basic options may reset selections you have made. Review all options prior to creating the virtual machine.' The 'Project details' section shows 'Subscription' as 'Azure subscription 1' and 'Resource group' as 'sal-rg'. The 'Instance details' section shows 'Virtual machine name' as 'HomePageServer', 'Region' as '(Asia Pacific) Central India', 'Availability options' as 'No infrastructure redundancy required', 'Security type' as 'Standard', and 'Image' as 'Ubuntu Server 24.04 LTS - x64 Gen2 (free services eligible)'. At the bottom, there are navigation buttons: '< Previous', 'Next > Disks', and 'Review + create'.

→ Home page server is created and installed nginx on the home page server.



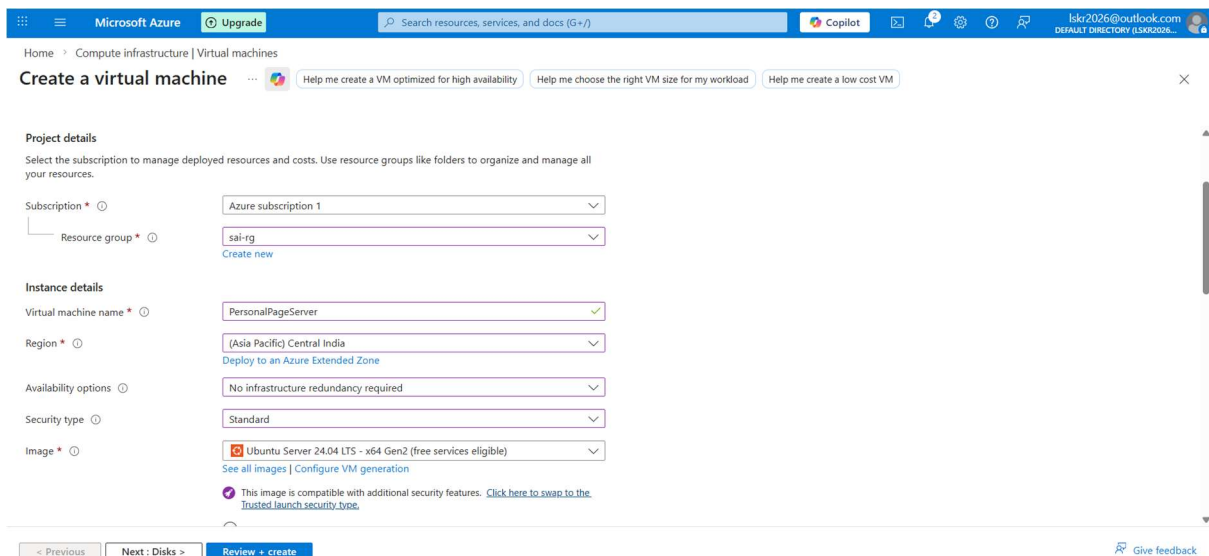
→ Installed nginx and browse with public ip.



→ Creating a second Virtual machine for personal page.

→ And assign this vm to the same vnet and with the same subnet.

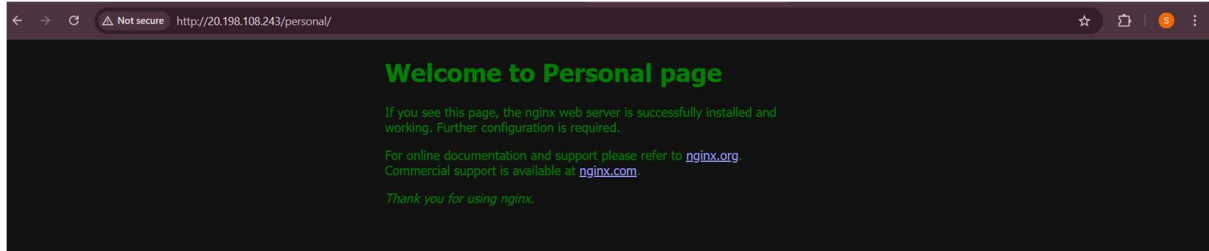
→ Extra subnet is for the application gateway.



→ Installed nginx for second Vm and change the default path.

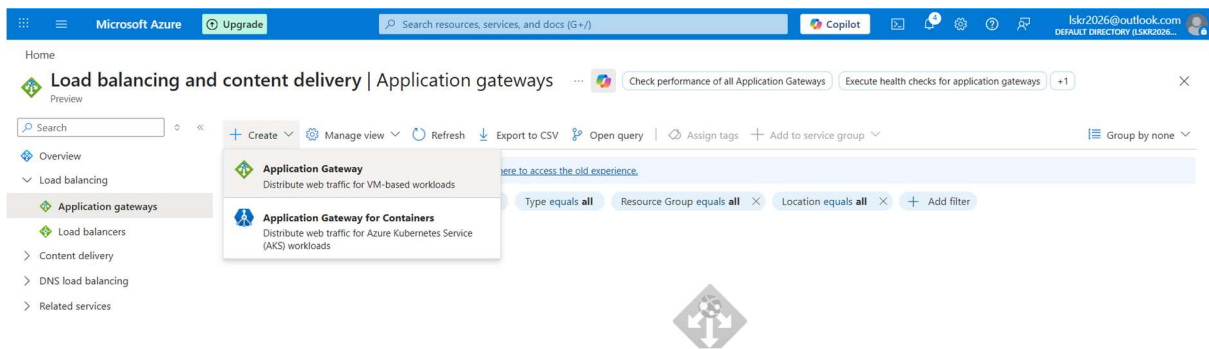
→ /var/www/html → /var/www/html/personal

→ Changing the text to knowing it is personal page



→ Search for the application gateway in the search bar.

→ Select Application Gateway and click on create.

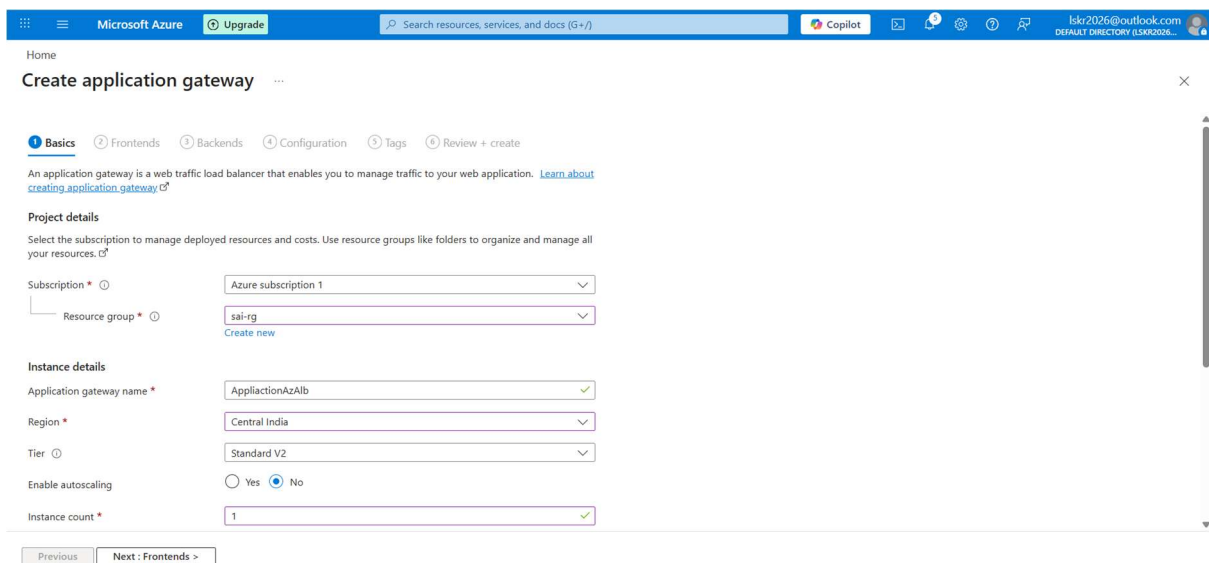


→ Adding basic details for the application gateway.

→ Selecting Resource group and add name for the application gateway.

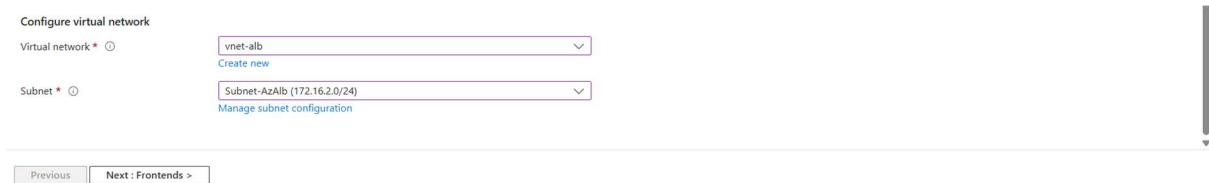
→ Select region where our Vm's created.

→ Here I can't enable autoscaling.



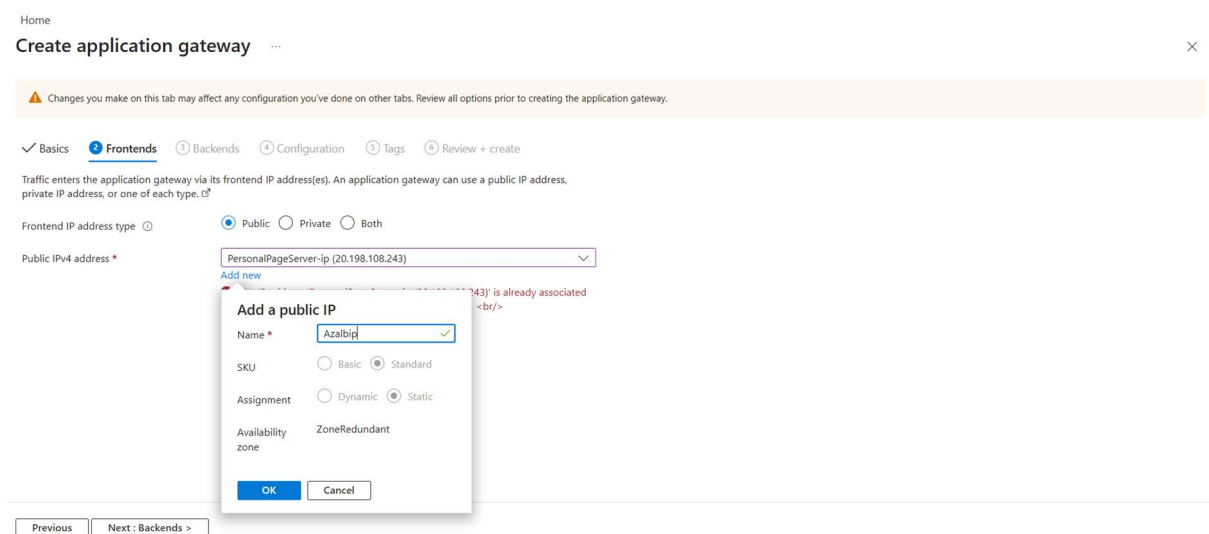
→ Selecting Virtual network.

→ And Select the dedicated subnet to the Application Gateway.



→ Next in the Frontend Ip's We add the new public ip to access the azalb.

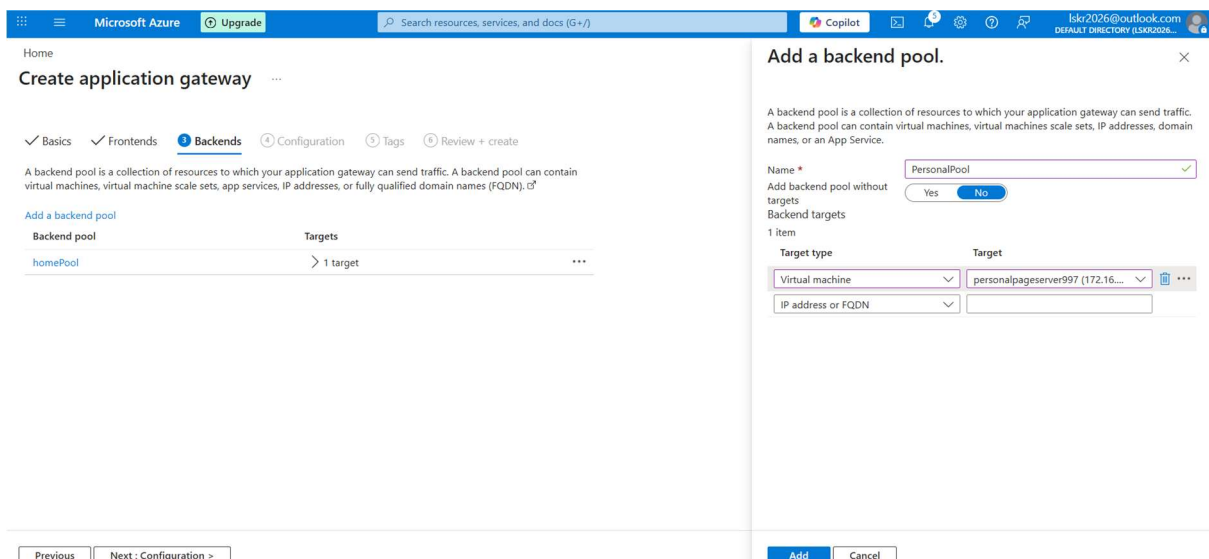
→ Free subscription can only assign 3 public ip's for a region. Make sure we can maintain it.



→ Adding backend pool for the application gateway.

→ Here the home pool contains one vm.

→ Personal pool contains another vm.



→ Here adding the routing rule.

→ In our case we use http and the port 80

Home

Create application gateway

✓ Basics ✓ Frontends ✓ Backends **4 Configuration** ③ Tags ④ Review + create

Create routing rules that link your frontend(s) and backend(s). You can also add more backend pools, add a second frontend, or add a new backend pool.

Frontends

+ Add a frontend IP

Public (new) Azalbip

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 * azalbrule ✓

Priority * ③ 100 ✓

* 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 * ③ listener1 ✓

Frontend IP * ③ Public IPv4 ✓

Protocol ③ ☒ HTTP ☐ HTTPS ☐ TCP ☐ TLS

Port * ③ 80 ✓

Listener type ③ ☒ 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

Previous Next: Tags >

Add Cancel

→ In the backend targets we add home pool and home settings for default path.

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 * azalbrule

Priority * ③ 100

* 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

Backend target * ③ homePool

Backend settings * ③ Homepoolsettings

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	Target name	Backend setting name	Backend pool
/personal/*	Personal	personalsetting	PersonalPool

Add Cancel

→ Click on the Add multiple targets to create a path based rule

→ Add the path and target name and backend settings and backend target.

Azalbroutingrule

Sai-Azalb

← Discard changes and go back to routing rules

Target type ☒ Backend pool ☐ Redirection

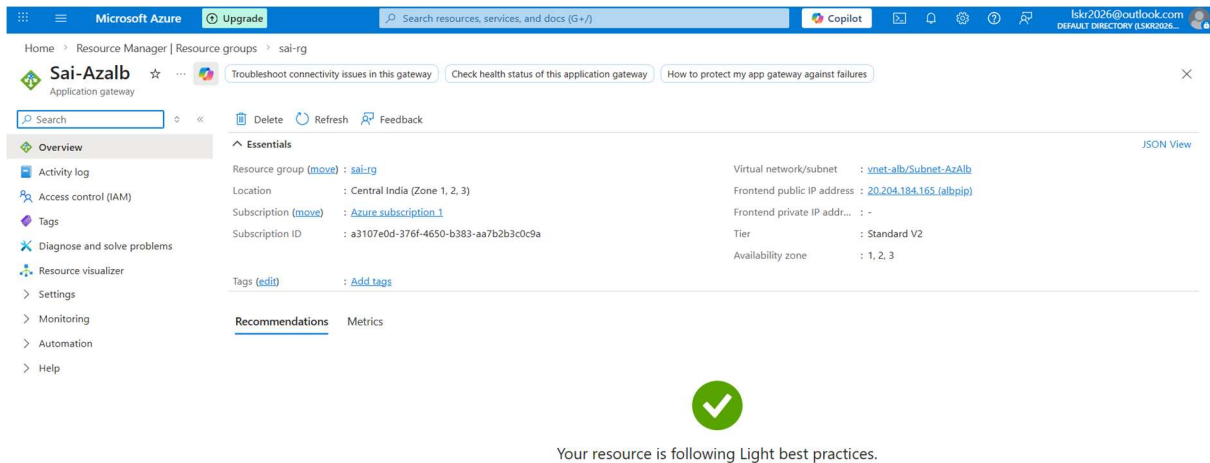
Path * ③ /personal/* ✓

Target name * personal ✓

Backend settings * ③ personalsettings ✓

Backend target * ③ Personalpool ✓

→ Finally review and click on create the Application gateway looks like.



Microsoft Azure | Upgrade | Search resources, services, and docs (G+/)

Home > Resource Manager | Resource groups > sai-rg

Sai-Azalb
Application gateway

Search | Delete | Refresh | Feedback

Overview

- Activity log
- Access control (IAM)
- Tags
- Diagnose and solve problems
- Resource visualizer
- Settings
- Monitoring
- Automation
- Help

Essentials


Resource group (move) : sai-rg
Location : Central India (Zone 1, 2, 3)
Subscription (move) : Azure subscription 1
Subscription ID : a3107e0d-376f-4650-b383-aa7b2b3cd9a

Virtual network/subnet : vnet-ailb/Subnet-AzAlb
Frontend public IP address : 20.204.184.165 (albpiip)
Frontend private IP address : -
Tier : Standard V2
Availability zone : 1, 2, 3

Tags (edit) : Add tags

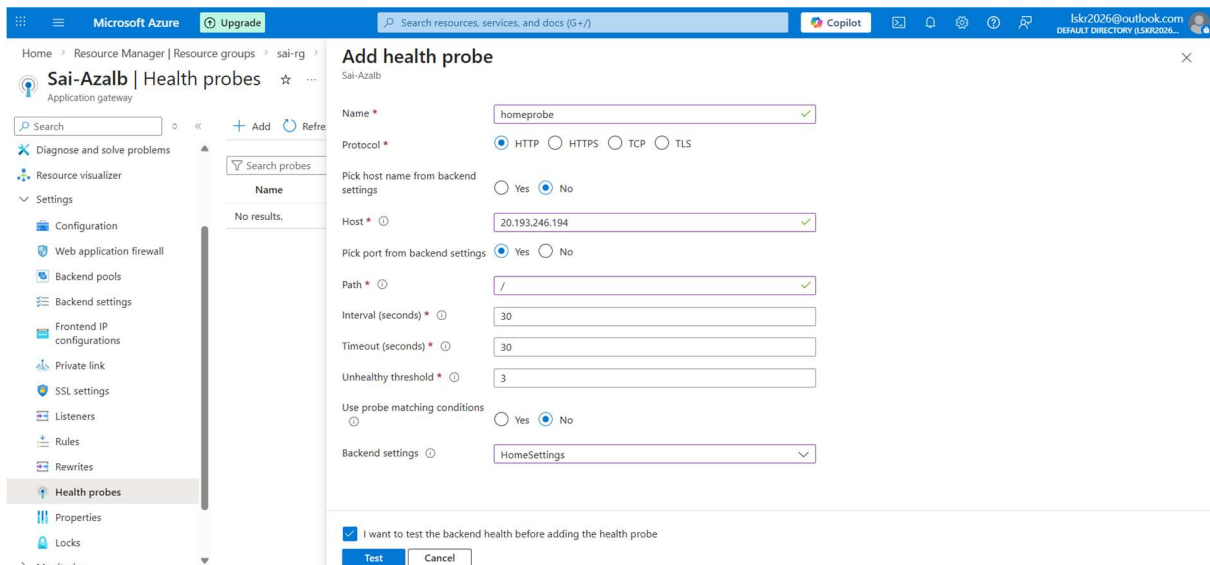
Recommendations Metrics

JSON View

 Your resource is following Light best practices.

→ Add health probes for both.

→ home probe for the first Vm



Microsoft Azure | Upgrade | Search resources, services, and docs (G+/)

Home > Resource Manager | Resource groups > sai-rg >

Sai-Azalb | Health probes

Search | Add | Refresh

Search probes

Name

No results.

Add health probe

Name * : homeprobe ✓

Protocol * : ☒ HTTP ☐ HTTPS ☐ TCP ☐ TLS

Pick host name from backend settings : ☐ Yes ☒ No

Host * : 20.193.246.194 ✓

Pick port from backend settings : ☒ Yes ☐ No

Path * : / ✓

Interval (seconds) * : 30

Timeout (seconds) * : 30

Unhealthy threshold * : 3

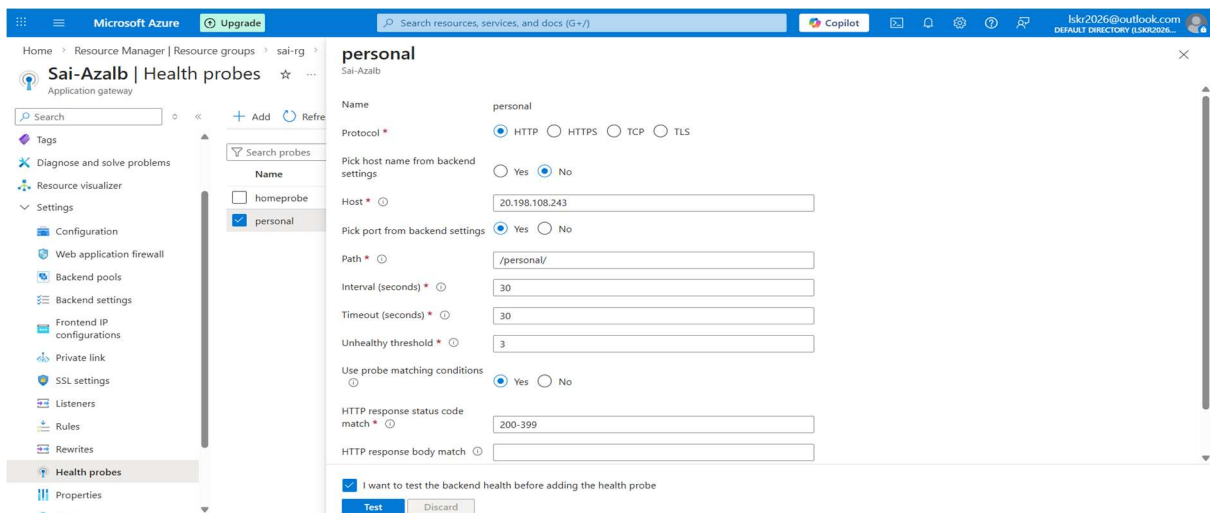
Use probe matching conditions : ☐ Yes ☒ No

Backend settings : HomeSettings

☒ I want to test the backend health before adding the health probe

Test **Cancel**

→ Personal health probe here we can set the path to the personal page.



Microsoft Azure | Upgrade | Search resources, services, and docs (G+/)

Home > Resource Manager | Resource groups > sai-rg >

Sai-Azalb | Health probes

Search | Add | Refresh

Search probes

Name

☐ homeprobe
☒ personal

personal

Name : personal

Protocol * : ☒ HTTP ☐ HTTPS ☐ TCP ☐ TLS

Pick host name from backend settings : ☐ Yes ☒ No

Host * : 20.198.108.243

Pick port from backend settings : ☒ Yes ☐ No

Path * : /personal/

Interval (seconds) * : 30

Timeout (seconds) * : 30

Unhealthy threshold * : 3

Use probe matching conditions : ☒ Yes ☐ No

HTTP response status code match * : 200-399

HTTP response body match :

☒ I want to test the backend health before adding the health probe

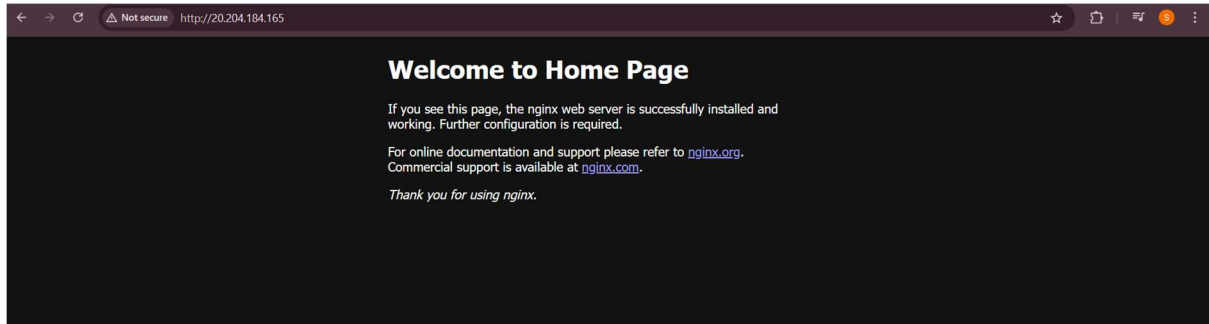
Test **Discard**

→Take the public ip address of the application gateway and search in the browser.

→In the default path home page we see.

→In the /personal path we see personal page.

→This is the home page for the application gateway.



→This is the personal page in the application gateway.

