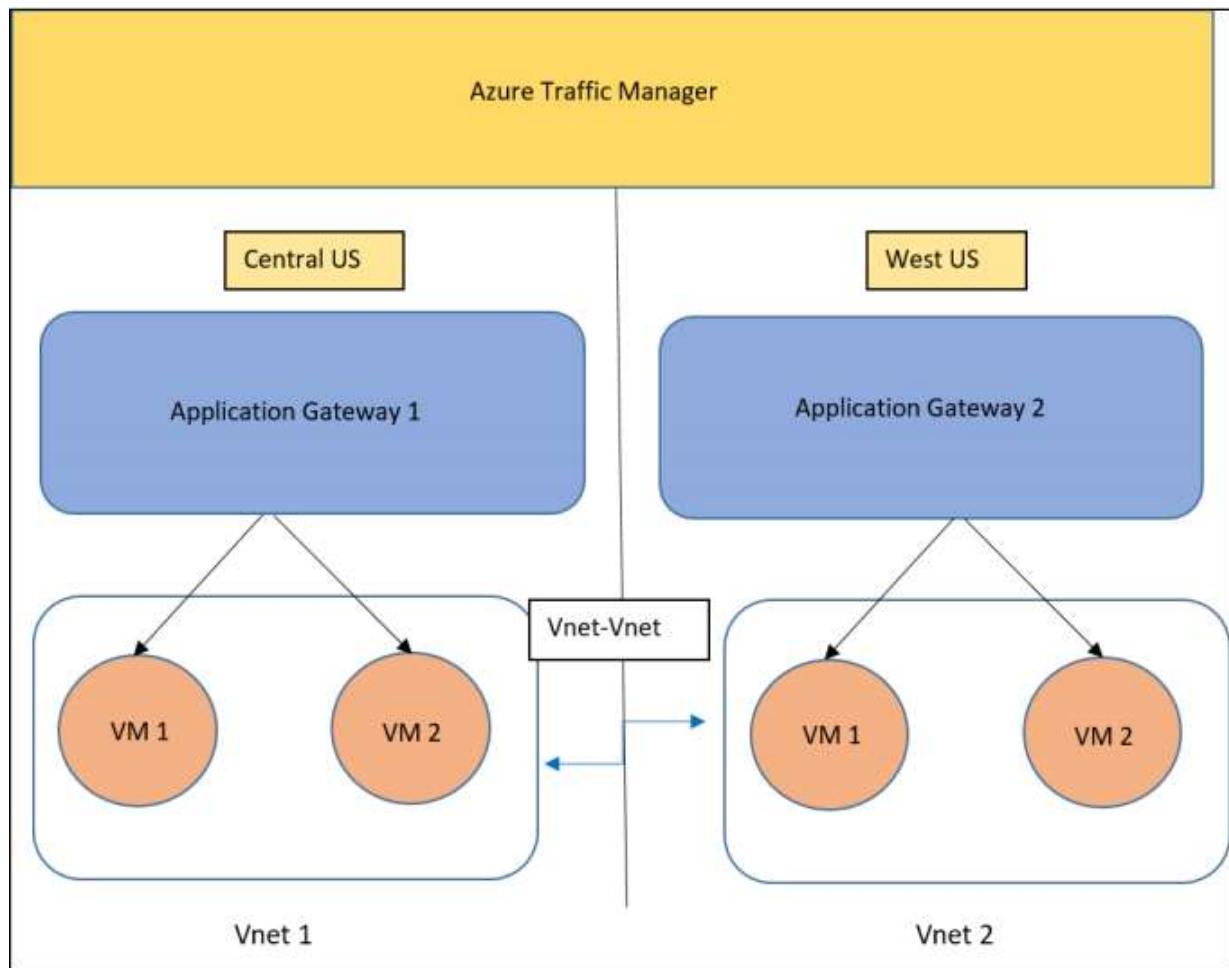




**Azure Administrator  
Capstone Project  
Az-104**

You work as an Azure professional for a Corporation. You are assigned the task of implementing the below architecture for the company's website.



There are three web pages to be deployed:

1. The home page is the default page (VM2)
2. The upload page is where you can upload the files to your Azure Blob Storage (VM1)
3. The error page for 403 and 502 errors

Application Gateway has to be configured in the following manner:

1. Example.com should be pointed to the home page
2. Example.com/upload should be pointed to the upload page

3. Application Gateway's error pages should be pointed to error.html which should be hosted as a static website in Azure Containers. The error.html file is present in the GitHub repository

The term 'Example' here refers to the Traffic Manager's domain name.

The client wants you to deploy them in the Central US and the West US regions such that the traffic is distributed optimally between both regions.

Storage Account has to be configured in the following manner:

1. You need to host your error.html as a static website here, and then point the application gateway's 403 and 502 errors to it.
2. Create a container named upload, this will be used by your code to upload the files.

Technical specifications for the deployments are as follows:

1. Deployments in both regions should have VMs inside VNets.
2. Clone the GitHub repo <https://github.com/azcloudberg/azproject> to all the VMs.
3. On VM1, please run vm1.sh this will deploy the upload page, on VM2 please run VM2.sh, this will install the home page.
4. For running the scripts, please run the following command inside the GitHub directory from the terminal.

**VM1: ./vm1.sh**

**VM2: ./vm2.sh**

5. After running the scripts, please edit the config.py file on VM1, and enter the details related to your storage account where the files will be uploaded.
6. Once done, please run the following command: **sudo python3 app.py**
7. Both regions should be connected to each other using VNet-VNet Peering.
8. Finally, your Traffic Manager should be pointing to the application gateway of both the regions.

# Solution:

The screenshot shows the Microsoft Azure portal interface. The top navigation bar includes tabs for 'Start Course | Intellipaat', 'GitHub - azcloudberg/azproject', and 'Virtual machines - Microsoft Azure'. The main content area is titled 'Virtual machines' and shows a search bar and filter options. A large central message reads 'No virtual machines to display' with a sub-instruction: 'Create a virtual machine that runs Linux or Windows. Select an image from the marketplace or use your own customized image.' Below this are two blue 'Create' buttons: one for Windows and one for Linux. The bottom of the screen shows the Windows taskbar with various pinned icons.

The screenshot shows the 'Create a virtual machine' wizard in the Microsoft Azure portal. The 'Basics' tab is active. In the 'Project details' section, the subscription is set to 'Azure subscription 1' and the resource group is 'az-104'. Under 'Instance details', the virtual machine name is 'vm1' and it is located in the '(US) East US' region. The security type is set to 'Trusted launch virtual machines'. In the 'Image' section, 'Ubuntu Server 20.04 LTS - x64 Gen2' is selected. The bottom navigation bar includes 'Review + create' and 'Next: Disks >' buttons. The taskbar at the bottom shows the Windows environment with various pinned icons.

Screenshot of the Microsoft Azure portal showing the 'Create a virtual machine' wizard step 1: Set instance details.

**Administrator account**

Authentication type:  SSH public key  
 Password

Azure now automatically generates an SSH key pair for you and allows you to store it for future use. It is a fast, simple, and secure way to connect to your virtual machine.

Username: suresh

SSH public key source: Generate new key pair

Key pair name: key0308

**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), HTTPS (443), SSH (22)

All traffic from the internet will be blocked by default. You will be able to change inbound port rules in the VM > Networking page.

Buttons: Review + create, < Previous, Next : Disks >, Give feedback.

Screenshot of the Microsoft Azure portal showing the 'Create a virtual machine' wizard step 2: Disks.

**Basics** **Disks** **Networking** **Management** **Monitoring** **Advanced** **Tags** **Review + create**

Azure VMs have one operating system disk and a temporary disk for short-term storage. You can attach additional data disks. The size of the VM determines the type of storage you can use and the number of data disks allowed. [Learn more](#)

**VM disk encryption**

Azure disk storage encryption automatically encrypts your data stored on Azure managed disks (OS and data disks) at rest by default when persisting it to the cloud.

Encryption at host:    
Encryption at host is not registered for the selected subscription. [Learn more about enabling this feature](#)

**OS disk**

OS disk size: Default size (30 GB)  
OS disk type: Premium SSD (locally-redundant storage)

Delete with VM:

Key management: Platform-managed key

Enable Ultra Disk compatibility:  Ultra disk is not supported with selected security type.

**Data disks for vm1**

You can add and configure additional data disks for your virtual machine or attach existing disks. This VM also comes with a temporary disk.

LUN	Name	Size (GiB)	Disk type	Host caching	Delete with VM

Create and attach a new disk [Attach an existing disk](#)

Buttons: Review + create, < Previous, Next : Networking >, Give feedback.

The screenshot shows the Microsoft Azure portal interface. The main window displays the 'Create a virtual machine' wizard, specifically the 'Networking' tab. On the left, there's a sidebar with 'Virtual machines'. The main content area shows fields for selecting a virtual network, subnet, public IP, and security group. A warning message at the bottom states: 'This will allow all IP addresses to access your virtual machine. This is only recommended for testing. Use the Advanced controls in the Networking tab to create rules to limit inbound traffic to known IP addresses.' Below this, there are 'Review + create' and 'Next : Management >' buttons. To the right, a separate 'Create virtual network' blade is open, showing a table for defining address ranges and subnets. The 'Address space' section shows an address range of 10.0.0.0/16 with 65536 addresses. The 'Subnets' section lists two subnets: 'subnet1' with range 10.0.0.0/24 and 'subnet2' with range 10.0.1.0/24. Both have 256 addresses. There are 'OK' and 'Discard' buttons at the bottom of the blade. The taskbar at the bottom shows various pinned icons.

This screenshot is nearly identical to the one above, showing the 'Create a virtual machine' wizard and the 'Create virtual network' blade. The configuration for the virtual machine networking is the same, including the selection of 'vnet01' for the virtual network and 'subnet1' for the subnet. The warning message about inbound traffic is also present. The 'Create virtual network' blade shows the same address ranges and subnet configurations. The taskbar at the bottom is identical to the first screenshot.

The screenshot shows the Microsoft Azure portal interface. The main window displays a deployment titled "CreateVm-canonical.0001-com-ubuntu-server-focal-2-20230803231309". The status bar indicates "Deployment is in progress". Deployment details show the name, subscription, start time (8/3/2023, 11:19:04 PM), correlation ID, and resource group (az-104). The "Deployment details" section shows no results. A "Give feedback" link is present. On the right, the "Notifications" sidebar shows two entries: "Deployment in progress..." (Running) and "Resource group created" (Creating resource group 'az-104' in subscription 'Azure subscription 1' succeeded). Below the notifications are "Go to resource group" and "Pin to dashboard" buttons. The bottom of the screen shows the Windows taskbar with various pinned icons.

The screenshot shows the Microsoft Azure portal interface. The main window displays a deployment titled "CreateVm-canonical.0001-com-ubuntu-server-focal-2-20230803231309". The status bar indicates "Your deployment is complete". Deployment details show the name, subscription, start time (8/3/2023, 11:19:04 PM), correlation ID, and resource group (az-104). The "Deployment details" section shows next steps: "Setup auto-shutdown" (Recommended), "Monitor VM health, performance and network dependencies" (Recommended), and "Run a script inside the virtual machine" (Recommended). Below these are "Go to resource" and "Create another VM" buttons. A "Give feedback" link is present. On the right, the "Notifications" sidebar shows two entries: "Deployment succeeded" (Deployment 'CreateVm-canonical.0001-com-ubuntu-server-focal-2-20230803231309' to resource group 'az-104' was successful) and "Resource group created" (Creating resource group 'az-104' in subscription 'Azure subscription 1' succeeded). Below the notifications are "Go to resource group" and "Pin to dashboard" buttons. The bottom of the screen shows the Windows taskbar with various pinned icons.

# VM-01

vm1 - Microsoft Azure

Home > CreateVm-canonical.0001-com-ubuntu-server-focal-2-20230803231309 | Overview

**vm1** Virtual machine

Overview

Essentials

Resource group (move) : az-104

Status : Running

Location : East US

Subscription (move) : Azure subscription 1

Subscription ID : 539f103b-45a1-4227-b8fc-bc0bd650851

Tags (edit) : Add tags

Properties

Virtual machine

Computer name : vm1

Operating system : Linux (ubuntu 20.04)

Image publisher : canonical

Image offer : 0001-com-ubuntu-server-focal

Image plan : 20.04-lts-gen2

VM generation : V2

VM architecture : x64

Agent status : Ready

Agent version : 2.9.1.1

Host group : None

Host : -

Proximity placement group : -

Colocation status : N/A

Networking

Public IP address : 52.188.175.133 ( Network interface vm1976 )

Public IP address (IPv6) : -

Private IP address : 10.0.0.4

Private IP address (IPv6) : -

Virtual network/subnet : vnet01/subnet1

DNS name : Configure

Size

Standard B1s

vCPUs : 1

RAM : 1 GiB

Disk

OS disk : vm1\_disk1\_2217aa25c19342e6a0f1128323c76327

30°C Mostly cloudy

Search

23:20 03-08-2023

Start Course | Intellipaint

Create a virtual machine - Microsoft Azure

GitHub - azcloudberg/azproject

Microsoft Azure

Home > Virtual machines

Create a virtual machine

⚠️ Changing Basic options may reset selections you have made. Review all options prior to creating the virtual machine.

Basics Disks Networking Management Monitoring Advanced Tags Review + create

Create a virtual machine that runs Linux or Windows. Select an image from Azure marketplace or use your own customized image. Complete the Basics tab then Review + create to provision a virtual machine with default parameters or review each tab for full customization. [Learn more](#)

Project details

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription \* : Azure subscription 1

Resource group \* : az-104

Virtual machine name \* : vm2

Region \* : (US) East US

Availability options : No infrastructure redundancy required

Security type : Trusted launch virtual machines

Image \* : Ubuntu Server 20.04 LTS - x64 Gen2

VM architecture : Arm64

Review + create < Previous Next : Disks > Give feedback

30°C Mostly cloudy

Search

23:22 03-08-2023

**Create a virtual machine**

**Administrator account**

Authentication type:  SSH public key  Password

Username \*: suresh

SSH public key source: Use existing key stored in Azure

Stored Keys: key0308

**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), HTTPS (443), SSH (22)

**Review + create** < Previous Next : Disks > Give feedback

**Create a virtual machine**

**Networking**

Virtual network: vnet01

Subnet \*: subnet2 (10.0.1.0/24)

Public IP: (new) vm2-ip

NIC network security group:  Basic  None  Advanced

Public inbound ports \*:  None  Allow selected ports

Select inbound ports \*: HTTP (80), HTTPS (443), SSH (22)

**Review + create** < Previous Next : Management > Give feedback

The screenshot shows the Microsoft Azure Deployment Overview page for a deployment named "CreateVm-canonical.0001-com-ubuntu-server-focal-2-20230803232028". The status bar indicates "...Deployment is in progress". Deployment details show the name, subscription, start time (8/3/2023, 11:23:56 PM), correlation ID, and resource group (az-104). A table titled "Deployment details" shows no results. A "Give feedback" section includes a link to "Tell us about your experience with deployment". On the right, promotional cards for Microsoft Defender for Cloud, Free Microsoft tutorials, and Work with an expert are visible. The taskbar at the bottom shows various pinned icons.

The screenshot shows the Microsoft Azure Deployment Overview page for the same deployment, now indicating it is complete. The status bar shows "...Your deployment is complete". Deployment details remain the same. A table titled "Deployment details" shows no results. A "Next steps" section lists "Setup auto-shutdown" (Recommended), "Monitor VM health, performance and network dependencies" (Recommended), and "Run a script inside the virtual machine" (Recommended). Buttons for "Go to resource" and "Create another VM" are present. A "Give feedback" section includes a link to "Tell us about your experience with deployment". On the right, promotional cards for Cost Management, Microsoft Defender for Cloud, Free Microsoft tutorials, and Work with an expert are visible. The taskbar at the bottom shows various pinned icons.

# VM-02

The screenshot shows the Microsoft Azure portal interface. The main title bar reads "vm2 - Microsoft Azure". The left sidebar navigation includes "Overview", "Activity log", "Access control (IAM)", "Tags", "Diagnose and solve problems", "Settings", "Networking", "Connect", "Disks", "Size", "Microsoft Defender for Cloud", "Advisor recommendations", "Extensions + applications", "Availability + scaling", "Configuration", "Identity", "Properties", "Locks", "Operations", "Bastion", and "Auto-shutdown". The central content area displays the "Essentials" section for "vm2", which includes details like Resource group (az-104), Status (Running), Location (East US), Subscription (Azure subscription 1), and Tags. Below this is the "Properties" tab, which provides detailed information about the virtual machine, including Computer name (vm2), Operating system (Linux (ubuntu 20.04)), Image publisher (canonical), Image offer (0001-com-ubuntu-server-focal), Image plan (20\_04-lts-gen2), VM generation (V2), VM architecture (x64), Agent status (Ready), Agent version (2.9.1.1), Host group (None), Host (N/A), Proximity placement group (N/A), and Colocation status (N/A). The "Networking" tab shows Public IP address, Private IP address, Virtual network/subnet, and DNS name. The "Size" tab indicates Standard B1s, 1 vCPU, and 1 GB RAM. The "Disk" tab shows OS disk (vm2\_disk1\_d63a3a1c4ef9436f9a586d4e125949a74). The bottom status bar shows the date (03-08-2023) and time (23:25).

The screenshot shows the "Create a virtual machine" wizard in the Microsoft Azure portal. The title bar reads "Create a virtual machine - Microsoft Azure". The left sidebar navigation is identical to the previous screenshot. The main content area has tabs for "Basics", "Disks", "Networking", "Management", "Monitoring", "Advanced", "Tags", and "Review + create". The "Basics" tab is selected. It contains fields for "Subscription" (Azure subscription 1), "Resource group" (az-104), "Virtual machine name" (vm3), "Region" ((US) West US), "Availability options" (No infrastructure redundancy required), "Security type" (Trusted launch virtual machines), "Image" (Ubuntu Server 20.04 LTS - x64 Gen2), and "VM architecture" (x64). At the bottom, there are buttons for "Review + create", "< Previous", and "Next : Disks >". The bottom status bar shows the date (03-08-2023) and time (23:26).

Screenshot of the Microsoft Azure portal showing the "Create a virtual machine" wizard. The current step is "Networking".

**Administrator account:**

- Authentication type: SSH public key (selected)
- Username: suresh
- SSH public key source: Use existing key stored in Azure
- Stored Keys: key0308

**Inbound port rules:**

- Public inbound ports: Allow selected ports
- Select inbound ports: SSH (22)

**Review + create** | < Previous | Next: Disks >

Screenshot of the Microsoft Azure portal showing the "Create virtual network" dialog.

**Networking:**

- Virtual network: (new) vm3-vnet
- Subnet: (new) default (10.1.0.0/24)
- Public IP: (new) vm3-ip
- NIC network security group: Basic (selected)
- Public inbound ports: Allow selected ports
- Select inbound ports: HTTP (80), HTTPS (443), SSH (22)

**Create virtual network**

The Microsoft Azure Virtual Network service enables Azure resources to securely communicate with each other in a virtual network which is a logical isolation of the Azure cloud dedicated to your subscription. You can connect virtual networks to other virtual networks, or your on-premises network. [Learn more](#)

Name: vnet2

**Address space:**

Address range *	Addresses	Overlap
10.1.0.0/16	10.1.0.0 - 10.1.255.255 (65536 addresses)	None

**Subnets:**

Subnet name	Address range	Addresses
subnet1	10.1.0.0/24	10.1.0.0 - 10.1.0.255 (256 addresses)
subnet2	10.1.1.0/24	10.1.1.0 - 10.1.1.255 (256 addresses)

OK | Discard

The screenshot shows the Microsoft Azure portal interface. At the top, there are three tabs: "Start Course | Intellipaat", "CreateVm-canonical.0001-com-ubuntu-server-focal-2-20230803232743 | Overview", and "GitHub - azcloudberg/azproject". The main content area is titled "CreateVm-canonical.0001-com-ubuntu-server-focal-2-20230803232743 | Overview". It displays a message: "Your deployment is complete" with a green checkmark icon. Below this, it shows deployment details: Deployment name: CreateVm-canonical.0001-com-ubuntu-server-focal-2, Start time: 8/3/2023, 11:30:38 PM, Subscription: Azure subscription 1, Correlation ID: ee396047-2133-41b2-a64f-9c0e7b9a57, Resource group: az-104. There are sections for "Deployment details" and "Next steps" with various recommended actions like "Setup auto-shutdown" and "Monitor VM health, performance and network dependencies". At the bottom left are "Go to resource" and "Create another VM" buttons. On the right side, there's a sidebar with links to "Cost Management", "Microsoft Defender for Cloud", "Free Microsoft tutorials", and "Work with an expert". The taskbar at the bottom shows various pinned icons.

## VM-03

The screenshot shows the Microsoft Azure portal interface, specifically the "vm3 - Microsoft Azure" tab. The main content area is titled "Home > CreateVm-canonical.0001-com-ubuntu-server-focal-2-20230803232743 | Overview > vm3". The left sidebar shows navigation options: Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Settings, Networking, Connect, Disks, Size, Microsoft Defender for Cloud, Advisor recommendations, Extensions + applications, Availability + scaling, Configuration, Identity, Properties, Locks, Operations, Bastion, Auto-shutdown, and a weather widget. The main panel shows the "Essentials" section for the virtual machine "vm3". It lists the following details:

Resource group	az-104
Status	: Running
Location	: West US
Subscription	: Azure subscription 1
Subscription ID	: 539f103b-45a1-4227-b8fc-bc0bd650851

Under the "Properties" tab, the "Virtual machine" properties are listed:

Computer name	vm3
Operating system	Linux (ubuntu 20.04)
Image publisher	canonical
Image offer	0001-com-ubuntu-server-focal
Image plan	20.04-lts-gen2
VM generation	V2
VM architecture	x64
Agent status	Ready
Agent version	2.9.1.1
Host group	None
Host	-
Proximity placement group	-
Colocation status	N/A

Under the "Networking" tab, the network configuration is shown:

Public IP address	20.253.141.108 ( Network interface vm3329 )
Private IP address	10.1.0.4
Private IP address (IPv6)	-
Virtual network/subnet	vnet2/subnet1
DNS name	Not configured

Under the "Size" tab, the VM size is listed:

Size	Standard B1s
vCPUs	1
RAM	1 GiB

Under the "Disk" tab, the OS disk is listed:

OS disk	vm3 OsDisk_1 h6sa0afad4h3d221ah0aYp55157269
Size	1 GiB

Screenshot of the Microsoft Azure portal showing the 'Create a virtual machine' wizard. The 'Basics' tab is selected.

**Project details**

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription: Azure subscription 1  
Resource group: az-104

**Instance details**

Virtual machine name: vm4  
Region: (US) West US  
Availability options: No infrastructure redundancy required  
Security type: Trusted launch virtual machines  
Image: Ubuntu Server 20.04 LTS - x64 Gen2  
VM architecture: x64

**Run with Azure Spot discount**

**Review + create** | **< Previous** | **Next : Disks >** | **Give feedback**

Screenshot of the Microsoft Azure portal showing the 'Create a virtual machine' wizard. The 'Basics' tab is selected.

**Administrator account**

Authentication type: SSH public key  
Azure now automatically generates an SSH key pair for you and allows you to store it for future use. It is a fast, simple, and secure way to connect to your virtual machine.

Username: suresh  
SSH public key source: Use existing key stored in Azure  
Stored Keys: key0308

**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: Allow selected ports  
Select inbound ports: HTTP (80), HTTPS (443), SSH (22)  
All traffic from the internet will be blocked by default. You will be able to change inbound port rules in the VM > Networking page.

**Review + create** | **< Previous** | **Next : Disks >** | **Give feedback**

Screenshot of the Microsoft Azure portal showing the 'Create a virtual machine' wizard on the 'Disks' step.

**Basics**   **Disks**   **Networking**   **Management**   **Monitoring**   **Advanced**   **Tags**   **Review + create**

Azure VMs have one operating system disk and a temporary disk for short-term storage. You can attach additional data disks. The size of the VM determines the type of storage you can use and the number of data disks allowed. [Learn more](#)

**VM disk encryption**

Azure disk storage encryption automatically encrypts your data stored on Azure managed disks (OS and data disks) at rest by default when persisting it to the cloud.

Encryption at host  Encryption at host is not registered for the selected subscription. [Learn more about enabling this feature](#)

**OS disk**

OS disk type \*

Delete with VM

Key management

Enable Ultra Disk compatibility  Ultra disk is not supported with selected security type.

**Data disks for vm4**

You can add and configure additional data disks for your virtual machine or attach existing disks. This VM also comes with a temporary disk.

LUN	Name	Size (GiB)	Disk type	Host caching	Delete with VM

Create and attach a new disk   Attach an existing disk

**Review + create**   < Previous   Next : Networking >   Give feedback

Screenshot of the Microsoft Azure portal showing the 'Create a virtual machine' wizard on the 'Networking' step.

**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 \*

Create new

Subnet \*

Manage subnet configuration

Public IP

Create new

NIC network security group

Public inbound ports \*

Select inbound ports \*

⚠ This will allow all IP addresses to access your virtual machine. This is only recommended for testing. Use the Advanced controls in the Networking tab to create rules to limit inbound traffic to known IP addresses.

**Review + create**   < Previous   Next : Management >   Give feedback

The screenshot shows the Microsoft Azure portal interface. A deployment named "CreateVm-canonical.0001-com-ubuntu-server-focal-2-20230803233234" has been successfully completed. Deployment details include a start time of 8/3/2023, 11:35:01 PM, and a correlation ID of 29aaebd6-2e22-449b-b17a-8c147af6eeea. The deployment was successful and is now listed under the "Deployment" section. The "Cost Management" sidebar is visible on the right.

## VM-04

The screenshot shows the Microsoft Azure portal interface for the VM4 virtual machine. The machine is running in the "az-104" resource group. Key details include:

Setting	Value
Operating system	Linux (ubuntu 20.04)
Size	Standard B1s (1 vcpu, 1 GiB memory)
Public IP address	20.66.127.164
Virtual network/subnet	vnet2/subnet2
DNS name	Not configured
Health state	-

The "Networking" section shows the public IP address (20.66.127.164) and the virtual network/subnet (vnet2/subnet2). The "Virtual machine" properties section includes details like computer name (vm4), operating system (Linux (ubuntu 20.04)), and image publisher (canonical). The "Networking" section also lists private IP addresses (10.1.1.4) and DNS configuration.

The screenshot shows the Microsoft Azure Virtual Machines dashboard. At the top, there are three tabs: "Start Course | Intellipaat", "Virtual machines - Microsoft Azure", and "GitHub - azcloudberg/azproject". The main title is "Virtual machines". Below the title, it says "Showing 1 to 4 of 4 records." There are four virtual machines listed:

Name	Type	Subscription	Resource group	Location	Status	Operating system	Size	Public IP address	Disk
vm1	Virtual machine	Azure subscription 1	az-104	East US	Running	Linux	Standard_B1s	52.188.175.133	1
vm2	Virtual machine	Azure subscription 1	az-104	East US	Running	Linux	Standard_B1s	52.249.199.64	1
vm3	Virtual machine	Azure subscription 1	az-104	West US	Running	Linux	Standard_B1s	20.253.141.108	1
vm4	Virtual machine	Azure subscription 1	az-104	West US	Running	Linux	Standard_B1s	20.66.127.164	1

At the bottom, there are navigation buttons: < Previous, Page 1 of 1, Next >, and a "Give feedback" link.

The screenshot shows the Microsoft Azure Storage accounts dashboard. At the top, there are three tabs: "Start Course | Intellipaat", "Storage accounts - Microsoft Azure", and "GitHub - azcloudberg/azproject". The main title is "Storage accounts". Below the title, it says "Showing 0 to 0 of 0 records." There is a message: "No storage accounts to display". Below the message, there is a brief description: "Create a storage account to store up to 500TB of data in the cloud. Use a general-purpose storage account to store object data, use a NoSQL data store, define and use queues for message processing, and set up file shares in the cloud. Use the Blob storage account and the hot or cool access tiers to optimize your costs based on how frequently your object data is accessed." There are two buttons: "Create storage account" and "Learn more". At the bottom, there are navigation buttons: < Previous, Page 1 of 1, Next >, and a "Give feedback" link.

Screenshot of the Microsoft Azure portal showing the 'Create a storage account' wizard.

**Project details**

Select the subscription in which to create the new storage account. Choose a new or existing resource group to organize and manage your storage account together with other resources.

Subscription \*: Azure subscription 1

Resource group \*: az-104

**Instance details**

Storage account name: protstg01

Region: (US) East US

Performance: Standard: Recommended for most scenarios (general-purpose v2 account)

Redundancy: Geo-redundant storage (GRS)

Make read access to data available in the event of regional unavailability.

**Review** < Previous Next: Advanced >

Give feedback

30°C Mostly cloudy

Screenshot of the Microsoft Azure portal showing the deployment details for a storage account.

**Deployment**

**Overview**

**Deployment is in progress**

Deployment name: protstg01\_1691086195138

Subscription: Azure subscription 1

Resource group: az-104

Start time: 8/3/2023, 11:40:01 PM

Correlation ID: 1353df45-cd9d-482f-8b2d-226e81fd78a4

**Deployment details**

Resource	Type	Status	Operation details
No results.			

Give feedback

Tell us about your experience with deployment

**Microsoft Defender for Cloud**

Secure your apps and infrastructure  
Go to Microsoft Defender for Cloud >

**Free Microsoft tutorials**

Start learning today >

**Work with an expert**

Azure experts are service provider partners who can help manage your assets on Azure and be your first line of support.  
Find an Azure expert >

30°C Mostly cloudy

The screenshot shows the Microsoft Azure Deployment Overview page for a deployment named `protstg01_1691086195138`. The deployment status is marked as complete with a green checkmark. Deployment details include the name, subscription (Azure subscription 1), and resource group (az-104). The deployment started at 8/3/2023, 11:40:01 PM, with a correlation ID of 1353d45-cd9d-482f-8b2d-226e81fd78a4. A sidebar on the right provides links to Cost Management, Microsoft Defender for Cloud, Free Microsoft tutorials, and Work with an expert.

## Storage account:

The screenshot shows the Microsoft Azure Storage account overview page for the `protstg01` storage account. The account is a StorageV2 (general purpose v2) type, located in East US, with Standard performance and Read-access geo-redundant storage (RA-GRS) replication. It was created on 3/8/2023, 11:40:07 pm. The page displays various settings under the Essentials tab, including Blob service and File service configurations, and security features like secure transfer for REST API operations and storage account key access. Networking options like All networks and Microsoft network routing are also shown.

# Create container:

The screenshot shows the Microsoft Azure Storage account interface for the 'protstg01' resource group. The left sidebar is collapsed, and the main area displays the 'Containers' section under 'Data storage'. Two containers are listed: 'Slogs' (Last modified: 8/3/2023, 11:40:35 PM, Private, Available) and 'upload' (Last modified: 8/3/2023, 11:42:51 PM, Container, Available). A success message at the top right states 'Successfully created storage container'.

The screenshot shows the Microsoft Azure Static website settings page for the 'protstg01' resource group. The left sidebar is collapsed. The 'Static website' section is selected under 'Data management'. A note states: 'Enabling static websites on the blob service allows you to host static content. Webpages may include static content and client-side scripts. Server-side scripting is not supported. As data is replicated asynchronously from primary to secondary regions, files at the secondary endpoint may not be immediately available or in sync with files at the primary endpoint.' Below this, a switch labeled 'Static website' is set to 'Disabled'. The status bar at the bottom shows the date as 03-08-2023.

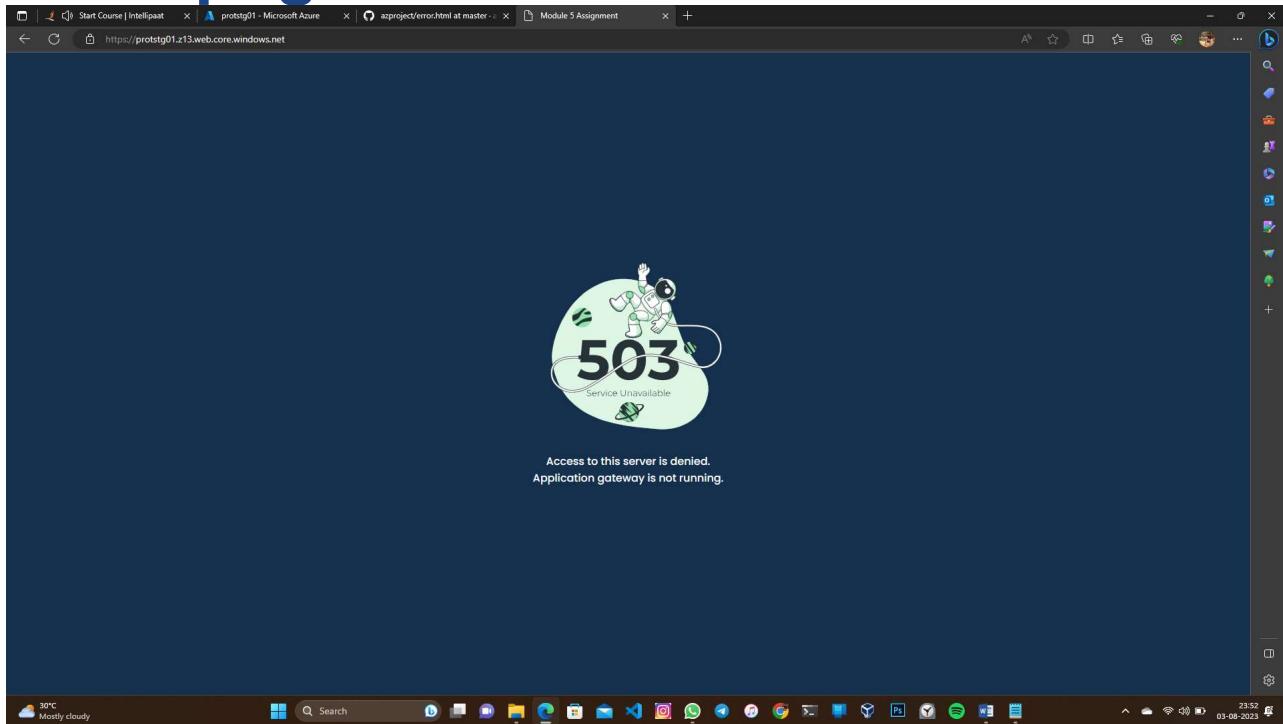
The screenshot shows the Microsoft Azure portal interface. The main window displays the configuration for a static website named "protstg01". The "Static website" tab is selected under the "Data management" section. The "Enabled" button is highlighted, indicating the static website is active. The "Index document name" field contains "index.html", and the "Error document path" field is empty. The left sidebar shows other tabs like "Overview", "Settings", and "Endpoints". The top navigation bar includes links for "Start Course | Intellipaat", "protstg01 - Microsoft Azure", and "azproject/error.html at master · +". The status bar at the bottom shows the date "03-08-2023" and time "23:47".

This screenshot is identical to the one above, but with a key difference: the "Index document name" field now contains "error.html". All other settings and the overall layout remain the same, including the "Enabled" status of the static website.

The screenshot shows the Microsoft Azure portal interface. The left sidebar navigation includes 'Storage account', 'Overview', 'Data management', 'Static website' (selected), and 'Settings'. The main content area displays the 'protstg01 | Static website' configuration. It shows the 'Static website' section is enabled. Primary and secondary endpoint URLs are listed as `https://protstg01.z13.web.core.windows.net/` and `https://protstg01-secondary.z13.web.core.windows.net/`. The 'Index document name' is set to 'error.html'. A success message indicates 'Successfully updated static website settings'. The taskbar at the bottom shows various pinned icons.

The screenshot shows the Microsoft Azure portal interface. The left sidebar navigation includes 'Container' (selected), 'Overview', 'Diagnose and solve problems', 'Access Control (IAM)', and 'Settings'. The main content area displays the 'protstg01 | Static website' configuration under the 'Container' tab. It shows the 'Authentication method' is 'Access key' and the location is 'Sweb'. A table lists a single file: 'error.html' (Modified: 8/3/2023, 11:49:25 PM, Access tier: Hot (Inferred)). On the right, an 'Upload blob' dialog is open, showing a success message 'Successfully uploaded blob(s)'. The taskbar at the bottom shows various pinned icons.

# Error page:



# Create East US application gateway:

A screenshot of the Microsoft Azure portal. The URL in the address bar is https://portal.azure.com/#view/Microsoft\_Azure\_Network/LoadBalancingHubMenuBlade/-/applicationgateways. The page title is 'Load balancing | Application Gateway'. On the left, there is a navigation menu under 'Load Balancing Services' with options: Overview, Application Gateway (which is selected), Front Door and CDN profiles, Load Balancer, and Traffic Manager. The main content area shows a search bar and filter options. A message at the top states 'Showing 0 to 0 of 0 records.' Below this, there is a large diamond-shaped icon with arrows pointing inwards. A section titled 'No application gateways to display' contains the text: 'Azure Application Gateway gives you application-level routing and load balancing services that let you build a scalable and highly-available web front end in Azure. You control the size of the gateway and scale your deployment based on your needs.' It includes a 'Create application gateway' button and a link to 'Learn more about Application gateway'. The browser's taskbar at the bottom shows various pinned icons and the system tray on the right indicating the date as 03-08-2023.

The screenshot shows the Microsoft Azure portal interface. On the left, there's a sidebar with navigation links like Home, Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Settings, Address space, Connected devices, Subnets (which is selected), Bastion, DDoS protection, Firewall, Microsoft Defender for Cloud, Network manager, DNS servers, Peering, Service endpoints, Private endpoints, Properties, Locks, and Monitoring. The main content area shows a table of existing subnets: subnet1 (10.0.0.0/24) and subnet2 (10.0.1.0/24). A modal window titled "Add subnet" is open on the right, prompting for a name ("subnet3\_ag"), a subnet address range ("10.0.2.0/24"), and other settings like NAT gateway (None) and Network security group (None). Below the subnet configuration, there are sections for Service endpoints, Subnet delegation, and Network policy for private endpoints. At the bottom of the modal are "Save" and "Cancel" buttons.

The screenshot shows the Microsoft Azure portal interface. The top navigation bar includes links for Start Course | Intellipaat, Add subnet - Microsoft Azure, aproject/error.html at master · x, Module 5 Assignment · x, and a user account (sureshleo116@gmail.com). The main content area shows a "Create application gateway" wizard. The "Basics" step is active, with tabs for Frontends, Backends, Configuration, Tags, and Review + create. It asks for a project details like Azure subscription (az-104) and resource group (az-104). The "Instance details" section includes fields for Application gateway name (appgateway1), Region (East US), Tier (Standard V2), Enable autoscaling (Yes), Minimum instance count (0), Maximum instance count (10), Availability zone (None), and HTTP2 (Enabled). At the bottom, there are "Previous" and "Next : Frontends >" buttons. The status bar at the bottom indicates it's 30°C, mostly cloudy, and shows the date as 03-08-2023.

Screenshot of the Microsoft Azure portal showing the 'Create application gateway' wizard. The current step is 'Instance details'. The application gateway name is 'appgateway1', region is 'East US', tier is 'Standard V2', and enable autoscaling is set to 'Yes'. Minimum instance count is 0, maximum instance count is 10, and availability zone is 'None'. HTTP2 is enabled. The virtual network is 'vnet01' and the subnet is 'subnet3\_ag (10.0.2.0/24)'. Navigation buttons at the bottom include 'Previous' and 'Next : Frontends >'. The taskbar at the bottom shows various pinned icons.

Screenshot of the Microsoft Azure portal showing the 'Create application gateway' wizard. The current step is 'Frontends'. Under 'Frontend IP address type', 'Public' is selected. A dropdown menu for 'Choose public IP address' is open, showing options like 'Add new'. Navigation buttons at the bottom include 'Previous' and 'Next : Backends >'. The taskbar at the bottom shows various pinned icons.

The screenshot shows the Microsoft Azure portal interface for creating an Application Gateway. The current step is 'Frontends'. The 'Frontend IP address type' is set to 'Public'. A dropdown menu shows '(New) appgip1' selected. At the bottom, there are 'Previous' and 'Next : Backends >' buttons.

The screenshot shows the 'Add a backend pool' dialog box overlaid on the Azure portal. The dialog title is 'Add a backend pool.' It contains fields for 'Name' (set to 'pool2'), 'Add backend pool without targets' (set to 'Yes'), and a table for 'Backend targets' with one item. The target type is 'Virtual machine' and the target is 'vm2825 (10.0.1.4)'. There are 'Add' and 'Cancel' buttons at the bottom right. The background shows the 'Create application gateway' wizard on the 'Backends' step.

Screenshot of the Microsoft Azure portal showing the 'Create application gateway' wizard at the 'Backends' step.

The 'Backends' tab is selected. A note states: "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)."

Under 'Backend pool', two entries are listed:

Backend pool	Targets	...
pool1	> 1 target	...
pool2	> 1 target	...

At the bottom, there are 'Previous' and 'Next : Configuration >' buttons.

Screenshot of the Microsoft Azure portal showing the 'Create application gateway' wizard at the 'Configuration' step.

The 'Configuration' tab is selected. A note states: "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."

Three sections are shown:

- Frontends**: Shows "Public (new) app1ip1".
- Routing rules**: A central panel with a large blue plus sign and the text "Add a routing rule".
- Backend pools**: Shows "pool1" and "pool2".

At the bottom, there are 'Previous' and 'Next : Tags >' buttons.

**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 \* rule1

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.<sup>1</sup>

Listener name \* listener1

Frontend IP \* Public

Protocol HTTP

Port 80

Listener type Basic

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](#)

Bad Gateway - 502 https://protstg01z13.web.core.windows.net/error.html

Forbidden - 403 Enter Html file URL

Show more status codes

Frontends

Routings

Previous Next : Tags > Add Cancel

**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 \* rule1

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.<sup>1</sup>

Listener name \* listener1

Frontend IP \* Public

Protocol HTTP

Port 80

Listener type Basic

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](#)

Bad Gateway - 502 https://protstg01z13.web.core.windows.net/error.html

Forbidden - 403 https://protstg01z13.web.core.windows.net/error.html

Show more status codes

Frontends

Routings

Previous Next : Tags > Add Cancel

Screenshot of the Microsoft Azure portal showing the "Add a routing rule" configuration page for an Application Gateway.

**Route Rule Configuration:**

- Rule name:** rule1
- Priority:** 1
- Listener:** Backend targets
- Target type:** Backend pool (selected)
- Backend target:** pool2
- Backend settings:** Add new

**Path-based routing:**

No additional targets to display.

**Buttons:** Previous, Next : Tags >, Add, Cancel.

Screenshot of the Microsoft Azure portal showing the "Add Backend setting" configuration page for an Application Gateway.

**Backend Settings:**

- Backend settings name:** default
- Backend protocol:** HTTP (selected)
- Backend port:** 80
- Additional settings:**
  - Cookie-based affinity: Disable
  - Connection draining: Disable
  - Request time-out (seconds): 20
  - Override backend path: Yes
- Host name:** By default, the Application Gateway sends the same HTTP host header to the backend as it receives from the client. If your backend application/service requires a specific host value, you can override it using this setting.
- Override with new host name:** Yes
- Create custom probes:** Yes

**Buttons:** Previous, Next : Tags >, Add, Cancel.

Screenshot of the Microsoft Azure portal showing the "Add a routing rule" configuration page for an Application Gateway.

The left sidebar shows the "Create application gateway" wizard steps: Basics, Frontends, Backends, Configuration (selected), Tags, and Review + create.

The main panel displays the "Add a routing rule" configuration:

- Rule name:** rule1
- Priority:** 1
- Listener:** Backend targets
- Target type:** Backend pool (selected)
- Backend target:** pool2 (selected)
- Backend settings:** default (selected)

Below these settings, there is a section for "Path-based routing".

At the bottom right of the modal, there are "Add" and "Cancel" buttons.

Screenshot of the Microsoft Azure portal showing the "Add a path" configuration page for an Application Gateway.

The left sidebar shows the "Create application gateway" wizard steps: Basics, Frontends, Backends, Configuration (selected), Tags, and Review + create.

The main panel displays the "Add a path" configuration:

- Target type:** Backend pool (selected)
- Path:** /upload
- Target name:** upload
- Backend settings:** default (selected)
- Backend target:** pool1 (selected)

At the bottom right of the modal, there are "Add" and "Cancel" buttons.

Microsoft Azure

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

Public: (new) apg1ip1

Routing rules

rule1

Backend pools

pool1

pool2

Previous Next : Tags >

Microsoft Azure

Create application gateway

Basics ✓ Frontends ✓ Backends ✓ Configuration ✓ Tags Review + create

Running final validation...

Subscription: Azure subscription 1

Resource group: az-104

Name: appgateway1

Region: East US

Tier: Standard\_v2

Enable autoscaling: Enabled

Minimum instance count: 0

Maximum instance count: 10

Availability zone: None

HTTP2: Enabled

Virtual network: vnet01

Subnet: subnet3\_ag (10.0.2.0/24)

Subnet address space: 10.0.2.0/24

Frontends

Public IP address name: apg1ip1

SKU: Standard

Assignment: Static

Availability zone: None

Tags

Create Previous Next Download a template for automation

Microsoft Azure

appgateway1

Overview

Essentials

Resource group (move) : az-104

Location : East US

Subscription (move) : Azure subscription 1

Subscription ID : 539f103b-45a1-4227-b8fc-bc0bd650851

Virtual network/subnet : vnet01/subnet3\_ag

Frontend public IP address : 20.231.30.73 (apg1ip1)

Frontend private IP address : 10.0.0.4

Tier : Standard V2

Availability zone : -

Tags (edit) : Add tags

Show data for last : 1 hour, 6 hours, 12 hours, 1 day, 7 days, 30 days

Sum Total Requests

Sum Failed Requests

Sum Response Status by HttpStatus

Sum Throughput

Sum CurrentConnections

Avg Healthy Host Count By BackendPool HttpSettings

# Create West US application gateway:

Microsoft Azure

Load balancing | Application Gateway

Overview

Load Balancing Services

Application Gateway

Front Door and CDN profiles

Load Balancer

Traffic Manager

Name : appgateway1

Public IP : 20.231.30.73

Private IP : 10.0.0.4

Location : East US

Subscription : Azure subscription 1

**Create application gateway**

**Basics**

An application gateway is a web traffic load balancer that enables you to manage traffic to your web applications. [Learn more about application gateway](#)

**Project details**

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription: Azure subscription 1  
Resource group: az-104

**Instance details**

Application gateway name: appgateway2  
Region: West US  
Tier: Standard V2  
Enable autoscaling: Yes  
Minimum instance count: 0  
Maximum instance count: 10  
Availability zone: None  
HTTP2: Enabled

**Configure virtual network**

Virtual network: vnet2  
Subnet: subnet2 (10.1.1.0/24)

Manage subnet configuration  
Subnet must only have application gateway

Previous Next: Frontends >

**Add subnet**

Name: subnet3\_ag1  
Subnet address range: 10.1.2.0 - 10.1.2.255 (251 + 5 Azure reserved addresses)  
Add IPv6 address space:   
NAT gateway: None  
Network security group: None  
Route table: None  
SERVICE ENDPOINTS  
Create service endpoint policies to allow traffic to specific azure resources from your virtual network over service endpoints. [Learn more](#)  
Services: 0 selected  
SUBNET DELEGATION  
Delegate subnet to a service: None  
NETWORK POLICY FOR PRIVATE ENDPOINTS

Save Cancel Give feedback

The screenshot shows the Microsoft Azure portal with the URL <https://portal.azure.com/#create/Microsoft.ApplicationGateway-ARM>. The page title is "Create application gateway". The top navigation bar includes "Start Course | Intellipaat", "Create application gateway - Mi", "protstg01 - Microsoft Azure", "aproject/error.html at master ·", "Module 5 Assignment", and a "+" button. The search bar says "Search resources, services, and docs (G+)".

The main content area is titled "Create application gateway" with a sub-section "Basics". It includes tabs for "Frontends", "Backends", "Configuration", "Tags", and "Review + create". Below the tabs, a note states: "An application gateway is a web traffic load balancer that enables you to manage traffic to your web applications." with a "Learn more" link.

**Project details**

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription: Azure subscription 1  
Resource group: az-104 (selected)

**Instance details**

Application gateway name: appgateway2  
Region: West US  
Tier: Standard V2  
Enable autoscaling: Yes (radio button selected)  
Minimum instance count: 0  
Maximum instance count: 10  
Availability zone: None  
HTTP2: Enabled (radio button selected)

**Configure virtual network**

Virtual network: vnet2  
Subnet: subnet3\_ag1 (10.1.2.0/24) (selected)

At the bottom, there are "Previous" and "Next: Frontends >" buttons. The taskbar at the bottom shows various pinned icons and the date/time: 04-08-2023, 00:19.

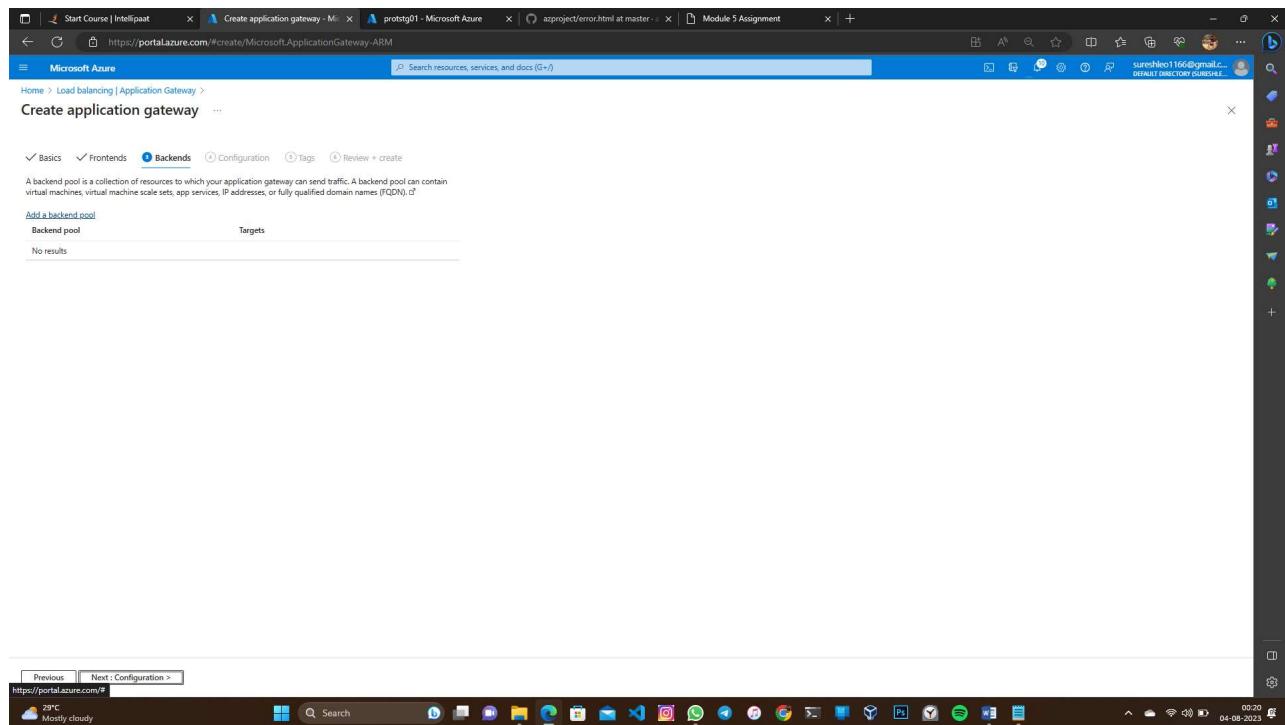
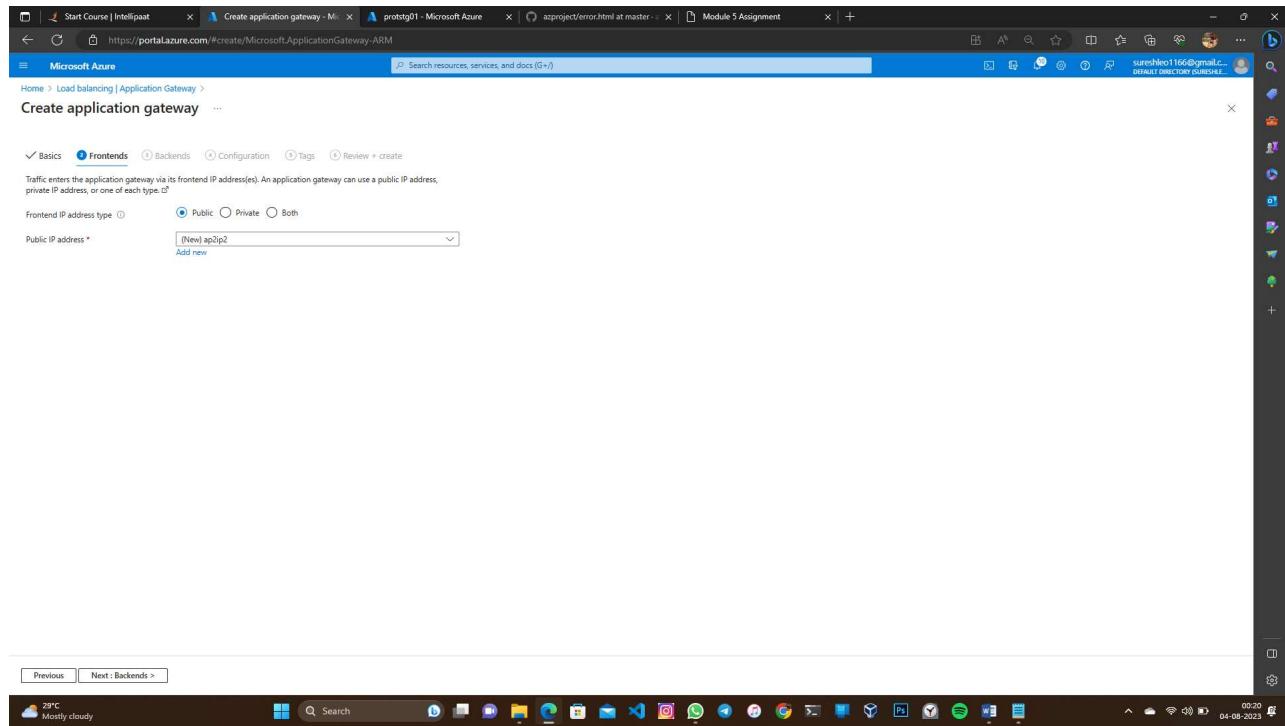
The screenshot shows the Microsoft Azure portal with the same URL and title as the previous screenshot. The main content area is titled "Create application gateway" with a sub-section "Frontends".

The "Frontend IP address type" section has "Public" selected. The "Public IP address" dropdown is set to "Choose public IP address". A modal dialog box is open, titled "Add a public IP". It contains the following fields:

- Name: ap2p1 (selected)
- SKU: Standard (radio button selected)
- Assignment: Static (radio button selected)
- Availability zone: None

At the bottom of the dialog are "OK" and "Cancel" buttons.

At the bottom of the main page, there are "Previous" and "Next: Backends >" buttons. The taskbar at the bottom shows various pinned icons and the date/time: 04-08-2023, 00:20.



The screenshot shows the Microsoft Azure portal interface. The user is creating a new Application Gateway and has reached the 'Add a backend pool' step. The 'Backends' tab is selected. A table lists the targets for the backend pool:

Target type	Target
Virtual machine	vm3329 (10.1.0.4)
IP address or FQDN	

At the bottom of the dialog, there are 'Add' and 'Cancel' buttons.

This screenshot is identical to the one above, showing the 'Add a backend pool' dialog in the Microsoft Azure portal. The table and target configuration are the same.

The screenshot shows the Microsoft Azure portal interface. The main window displays the 'Create application gateway' configuration page, specifically the 'Backends' tab. A sub-dialog titled 'Add a backend pool' is open on the right side. The dialog explains what a backend pool is and provides options to add it without targets or to add specific targets. In the 'Targets' section, there is one item listed: 'Virtual machine' with the value 'vm4939 (10.1.1.4)'. Below this, there is a dropdown menu set to 'IP address or FQDN'. At the bottom of the dialog are 'Add' and 'Cancel' buttons. The taskbar at the bottom of the screen shows various pinned icons and the system tray.

This screenshot shows the same Microsoft Azure portal interface as the previous one, but the 'Create application gateway' configuration page has been completed. The 'Backends' tab now lists two backend pools: 'pool3' and 'pool4', each with one target. The taskbar at the bottom of the screen shows various pinned icons and the system tray.

Start Course | Intellipaat

Create application gateway - Microsoft Azure

protstg01 - Microsoft Azure

asproject/error.html at master · GitHub

Module 5 Assignment

Microsoft Azure

https://portal.azure.com/#create/Microsoft.ApplicationGateway-ARM

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) ap2ip2

Routing rules

+ Add a routing rule

Backend pools

+ Add a backend pool

pool3

pool4

Previous Next : Tags >

29°C Mostly cloudy

Search

04-08-2023

Start Course | Intellipaat

Add a routing rule - Microsoft Azure

protstg01 - Microsoft Azure

asproject/error.html at master · GitHub

Module 5 Assignment

Microsoft Azure

https://portal.azure.com/#create/Microsoft.ApplicationGateway-ARM

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) ap2ip2

Routing rules

+ Add a routing rule

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 \*

rule2

Priority \*

1

Listener \*

listener2

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 \*

listener2

Frontend IP \*

Public

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 [?](#)

Bad Gateway - 502

https://protstg01.z13.web.core.windows.net/error.html

Forbidden - 403

https://protstg01.z13.web.core.windows.net/error.html

Show more status codes

Bad Gateway - 502

https://protstg01.z13.web.core.windows.net/error.html

Forbidden - 403

https://protstg01.z13.web.core.windows.net/error.html

Previous Next : Tags >

29°C Mostly cloudy

Search

04-08-2023

Screenshot of the Microsoft Azure portal showing the "Add Backend setting" configuration page for an Application Gateway.

The "Configuration" tab is selected. The "Backend settings name" is set to "default". The "Backend protocol" is "HTTP". The "Backend port" is "80". Under "Additional settings", "Cookie-based affinity" is disabled, "Connection draining" is disabled, and the "Request time-out (seconds)" is set to "20". The "Host name" dropdown shows "Override with new host name" set to "No".

At the bottom right, there are "Add" and "Cancel" buttons.

Screenshot of the Microsoft Azure portal showing the "Add a routing rule" configuration page for an Application Gateway.

The "Configuration" tab is selected. The "Rule name" is "rule2". The "Priority" is "1". The "Listener" is selected. Under "Target type", "Backend pool" is selected. The "Backend target" is "pool4". The "Backend settings" are set to "default".

At the bottom right, there are "Add" and "Cancel" buttons.

Screenshot of the Microsoft Azure portal showing the "Add a path" configuration page for an Application Gateway.

The left sidebar shows the navigation path: Home > Load balancing | Application Gateway > Create application gateway ...

The main area displays the "Configuration" tab, which includes sections for Basics, Frontends, Backends, Configuration (selected), Tags, and Review + create.

The "Routing rules" section shows a single rule named "Public (new) ap2ip2".

The "Add a path" dialog box is open, showing the following settings:

- Target type: Backend pool (radio button selected)
- Path: /upload (selected from dropdown)
- Target name: upload (selected from dropdown)
- Backend settings: default (selected from dropdown)
- Backend target: pool3 (selected from dropdown)

At the bottom right of the dialog are "Add" and "Cancel" buttons.

Screenshot of the Microsoft Azure portal showing the "Add a routing rule" configuration page for an Application Gateway.

The left sidebar shows the navigation path: Home > Load balancing | Application Gateway > Create application gateway ...

The main area displays the "Configuration" tab, which includes sections for Basics, Frontends, Backends, Configuration (selected), Tags, and Review + create.

The "Routing rules" section shows a single rule named "Public (new) ap2ip2".

The "Add a routing rule" dialog box is open, showing the following settings:

- Rule name: rule2 (selected from dropdown)
- Priority: 1 (selected from dropdown)
- Listener: \*Listener (selected from dropdown)
- Backend targets: \*Backend targets (selected from dropdown)
- Target type: Backend pool (radio button selected)
- Backend target: pool4 (selected from dropdown)
- Backend settings: default (selected from dropdown)

The "Path-based routing" section indicates that traffic can be routed to different backend targets based on the URL path.

At the bottom right of the dialog are "Add" and "Cancel" buttons.

Microsoft Azure

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) ap2ip2

Routing rules

+ Add a routing rule

rule2

Manage Backend settings

Backend pools

+ Add a backend pool

pool3

pool4

Previous Next : Tags >

Microsoft Azure

Create application gateway

Running final validation...

✓ Basics ✓ Frontends ✓ Backends ✓ Configuration ✓ Tags Review + create

Basics

Subscription: Azure subscription 1  
Resource group: az-104  
Name: appgateway2  
Region: West US  
Tier: Standard\_v2  
Enable autoscaling: Enabled  
Minimum instance count: 0  
Maximum instance count: 10  
Availability zone: None  
HTTP2: Enabled  
Virtual network: vnet2  
Subnet: subnet3\_ag1 (10.1.2.0/24)  
Subnet address space: 10.1.2.0/24

Frontends

Public IP address name: ap2ip2  
SKU: Standard  
Assignment: Static  
Availability zone: None

Tags

None

Create Previous Next Download a template for automation

Screenshot of Microsoft Azure portal showing the deployment status of "Microsoft.ApplicationGateway-20230804001758".

The deployment is complete, with the following details:

- Deployment name: Microsoft.ApplicationGateway-20230804001758
- Subscription: Azure subscription 1
- Resource group: az-104

Timestamp: 8/4/2023, 12:26:53 AM

Correlation ID: 2007c566-def2-4d47-b826-935eba9babff

Next steps include "Go to resource group", "Give feedback", and "Tell us about your experience with deployment".

Right sidebar features links for Cost management, Microsoft Defender for Cloud, and Free Microsoft tutorials.

Windows taskbar at the bottom shows various pinned icons.

Screenshot of Microsoft Azure portal showing the overview of the application gateway "appgateway2".

Essentials details:

- Resource group: az-104
- Location: West US
- Subscription: Azure subscription 1
- Subscription ID: 539f103b-45a1-4227-b8fc-bc0bd650851

Metrics and logs section displays real-time monitoring data:

- Sum Total Requests: 100 (Aug 4, UTC+09:30)
- Sum Failed Requests: 0 (Aug 4, UTC+09:30)
- Sum Response Status by HttpStatus: 100 (Aug 4, UTC+09:30)
- Sum Throughput: 1000/s (Aug 4, UTC+09:30)
- Sum CurrentConnections: 18 (Aug 4, UTC+09:30)
- Avg Healthy Host Count By BackendPool HttpSettings: 0 (Aug 4, UTC+09:30)

Windows taskbar at the bottom shows various pinned icons.

Screenshot of the Microsoft Azure portal showing the Load balancing | Application Gateway page.

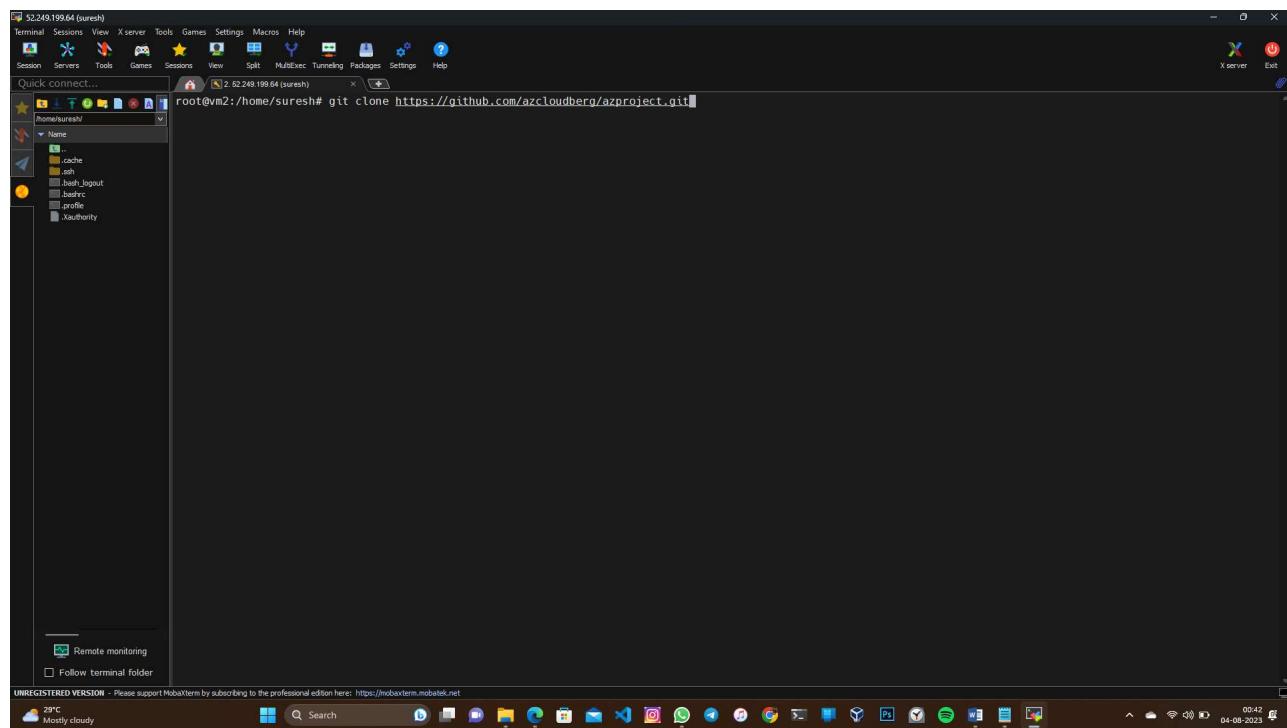
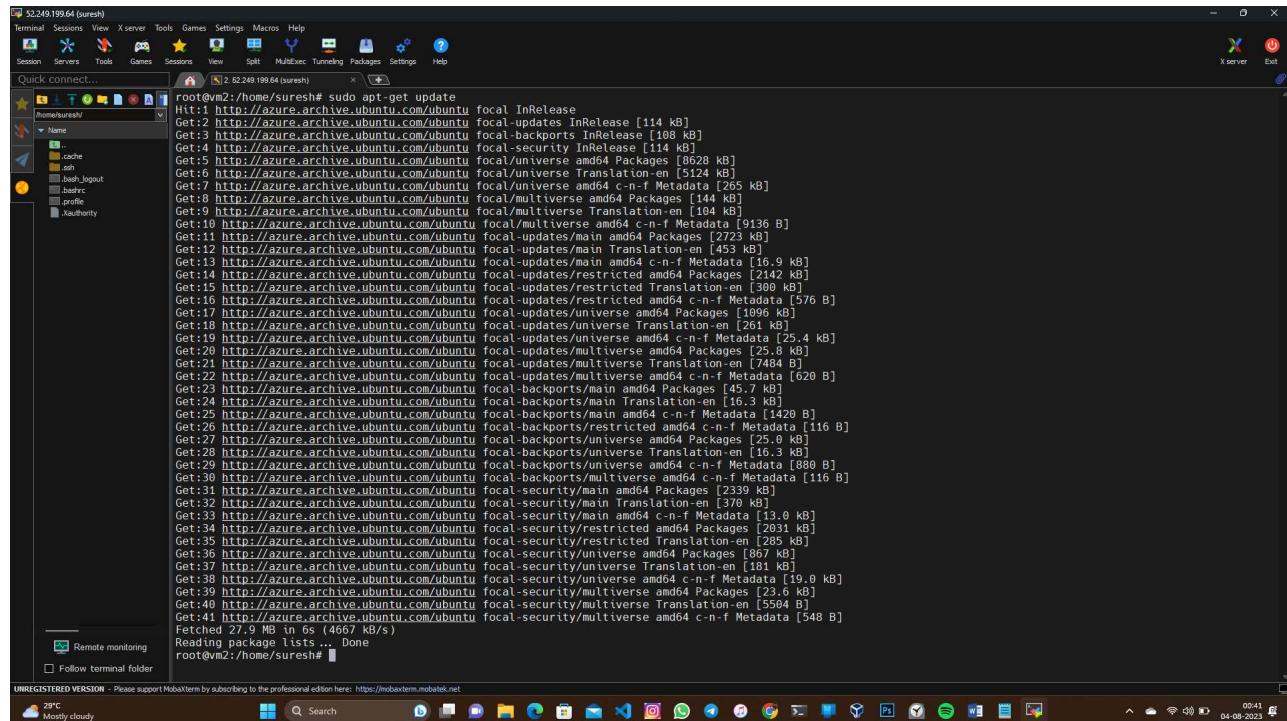
The page displays a list of Application Gateways:

Name	Public IP	Private IP	Resource group	Location	Subscription
appgateway1	20.231.30.73	-	az-104	East US	Azure subscription 1
appgateway2	20.66.41.65	-	az-104	West US	Azure subscription 1

Filtering applied: Subscription equals all, Resource group equals all, Location equals all.

Page navigation: < Previous, Page 1 of 1, Next >, Give feedback.

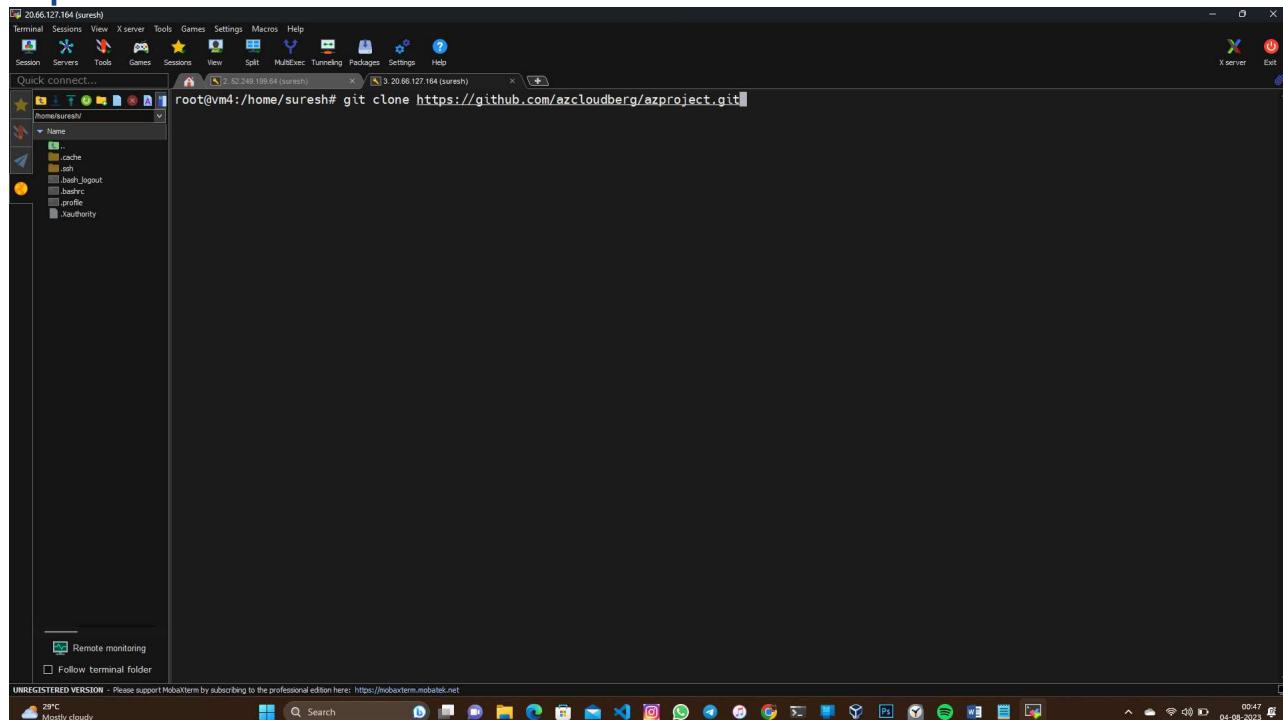
## Launch VM-2:



```
root@vm2:~/home/suresh# git clone https://github.com/azcloudberg/azproject.git
Cloning into 'azproject'...
remote: Enumerating objects: 229, done.
remote: Counting objects: 100% (12/12), done.
remote: Compressing objects: 100% (12/12), done.
remote: Total 229 (delta 21), reused 14 (delta 14), pack-reused 203
Receiving objects: 100% (229/229), 52.16 KiB | 13.04 MB/s, done.
Resolving deltas: 100% (108/108), done.
root@vm2:~/home/suresh# ls
azproject
root@vm2:~/home/suresh# cd azproject/
root@vm2:~/home/suresh/azproject# ls
README.md  app.py  config.py  error.html  index.html  templates  vm1.sh  vm2.sh
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29°C  Mostly cloudy  Search  04-08-2023  00:42
```

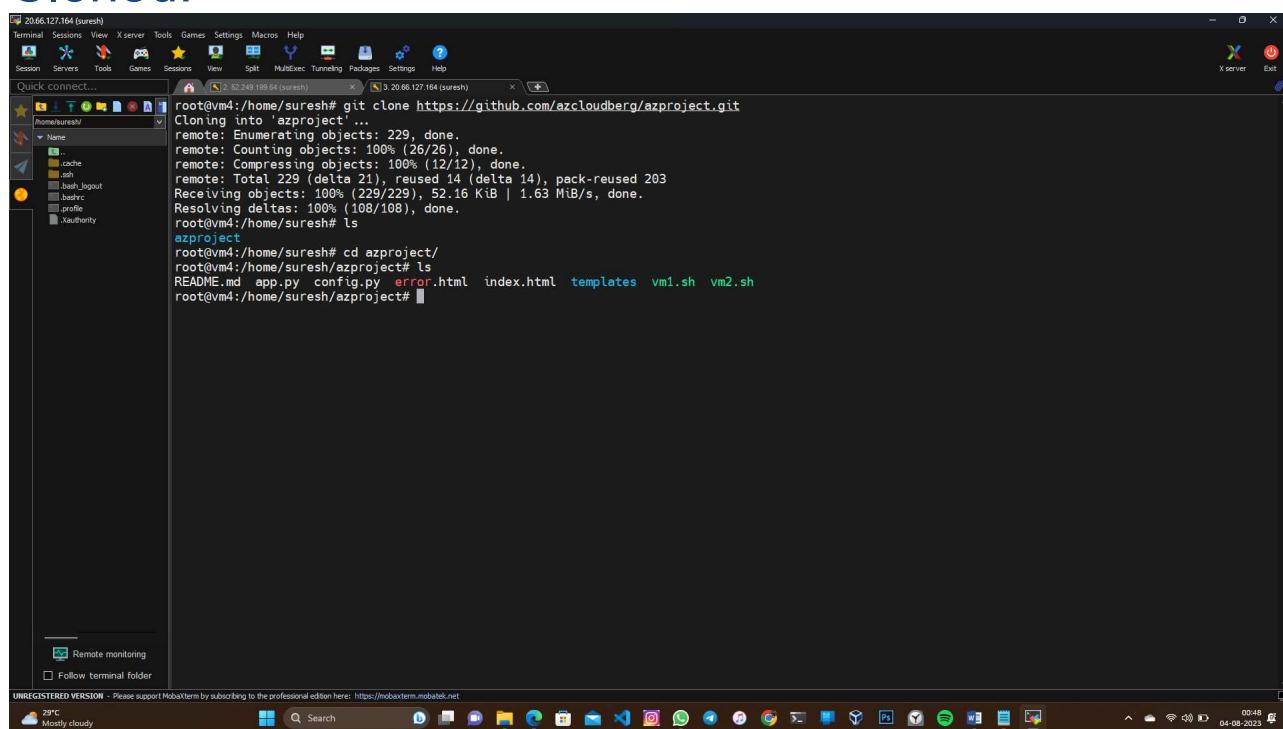
```
root@vm2:~/home/suresh# git clone https://github.com/azcloudberg/azproject.git
Cloning into 'azproject'...
remote: Enumerating objects: 229, done.
remote: Counting objects: 100% (26/26), done.
remote: Compressing objects: 100% (12/12), done.
remote: Total 229 (delta 21), reused 14 (delta 14), pack-reused 203
Receiving objects: 100% (229/229), 52.16 KiB | 13.04 MB/s, done.
Resolving deltas: 100% (108/108), done.
root@vm2:~/home/suresh# ls
azproject
root@vm2:~/home/suresh# cd azproject/
root@vm2:~/home/suresh/azproject# ls
README.md  app.py  config.py  error.html  index.html  templates  vm1.sh  vm2.sh
root@vm2:~/home/suresh/azproject# ./vm2.sh
Hit:1 http://azure.archive.ubuntu.com/ubuntu focal InRelease
Hit:2 http://azure.archive.ubuntu.com/ubuntu focal-updates InRelease
Hit:3 http://azure.archive.ubuntu.com/ubuntu focal-backports InRelease
Hit:4 http://azure.archive.ubuntu.com/ubuntu focal-security InRelease
Reading package lists... Done
[...]
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29°C  Mostly cloudy  Search  04-08-2023  00:43
```

# Launch VM-4: Update and clone:



```
root@vm4:/home/suresh# git clone https://github.com/azcloudberg/azproject.git
```

Cloned:



```
root@vm4:/home/suresh# git clone https://github.com/azcloudberg/azproject.git
Cloning into 'azproject'...
remote: Enumerating objects: 229, done.
remote: Counting objects: 100% (26/26), done.
remote: Compressing objects: 100% (12/12), done.
remote: Total 229 (delta 21), reused 14 (delta 14), pack-reused 203
Receiving objects: 100% (229/229), 52.16 KiB | 1.63 MiB/s, done.
Resolving deltas: 100% (108/108), done.
root@vm4:/home/suresh# ls
azproject
root@vm4:/home/suresh# cd azproject/
root@vm4:/home/suresh/azproject# ls
README.md app.py config.py error.html index.html templates vm1.sh vm2.sh
root@vm4:/home/suresh/azproject#
```

```
root@vm4:/home/suresh# git clone https://github.com/azcloudberg/azproject.git
Cloning into 'azproject'...
remote: Enumerating objects: 229, done.
remote: Counting objects: 100% (26/26), done.
remote: Compressing objects: 100% (12/12), done.
remote: Total 229 (delta 21), reused 14 (delta 14), pack-reused 203
Receiving objects: 100% (229/229), 52.16 KiB | 1.63 MiB/s, done.
Resolving deltas: 100% (108/108), done.
root@vm4:/home/suresh# ls
azproject
root@vm4:/home/suresh# cd azproject/
root@vm4:/home/suresh/azproject# ls
README.md app.py config.py error.html index.html templates vm1.sh vm2.sh
root@vm4:/home/suresh/azproject# ./vm2.sh
Hit:1 http://azure.archive.ubuntu.com/ubuntu focal InRelease
Hit:2 http://azure.archive.ubuntu.com/ubuntu focal-updates InRelease
Hit:3 http://azure.archive.ubuntu.com/ubuntu focal-backports InRelease
Hit:4 http://azure.archive.ubuntu.com/ubuntu focal-security InRelease
Reading package lists... Done
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  apache2-bin apache2-data apache2-utils libaprutil1 libaprutil1-dbd-sqlite3 libaprutil1-ldap libjansson4 liblua5.2-0 ssl-cert
Suggested packages:
  apache2-doc apache2-suexec-pristine | apache2-suexec-custom www-browser openssl-blacklist
The following NEW packages will be installed:
  apache2 apache2-bin apache2-data apache2-utils libaprutil1 libaprutil1-dbd-sqlite3 libaprutil1-ldap libjansson4 liblua5.2-0 ssl-cert
0 upgraded, 11 newly installed, 0 to remove and 14 not upgraded.
Need to get 1867 kB of archives.
After this operation, 8098 kB of additional disk space will be used.
Do you want to continue? [Y/n] ■
```

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29°C Mostly cloudy 04-08-2023 00:49

## Launch VM-01: Update & clone:

```
root@vm1:/home/suresh# git clone https://github.com/azcloudberg/azproject.git
Cloning into 'azproject'...
remote: Enumerating objects: 229, done.
remote: Counting objects: 100% (26/26), done.
remote: Compressing objects: 100% (12/12), done.
remote: Total 229 (delta 21), reused 14 (delta 14), pack-reused 203
Receiving objects: 100% (229/229), 52.16 KiB | 1.63 MiB/s, done.
Resolving deltas: 100% (108/108), done.
root@vm1:/home/suresh# ls
azproject
root@vm1:/home/suresh# cd azproject/
root@vm1:/home/suresh/azproject# ls
README.md app.py config.py error.html index.html templates vm1.sh vm2.sh
root@vm1:/home/suresh/azproject# ./vm1.sh
```

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29°C Mostly cloudy 04-08-2023 00:51

```
root@vm1:/home/suresh# git clone https://github.com/azcloudberg/azproject.git
Cloning into 'azproject'...
remote: Enumerating objects: 229, done.
remote: Counting objects: 100% (26/26), done.
remote: Compressing objects: 100% (12/12), done.
Receiving objects: 100% (229/229), 52.16 KiB | 7.45 MiB/s, done.
Resolving deltas: 100% (108/108), done.
root@vm1:/home/suresh# ls
azproject
root@vm1:/home/suresh# cd azproject/
root@vm1:/home/suresh/azproject# ls
README.md app.py config.py error.html index.html templates vm1.sh vm2.sh
root@vm1:/home/suresh/azproject#
```

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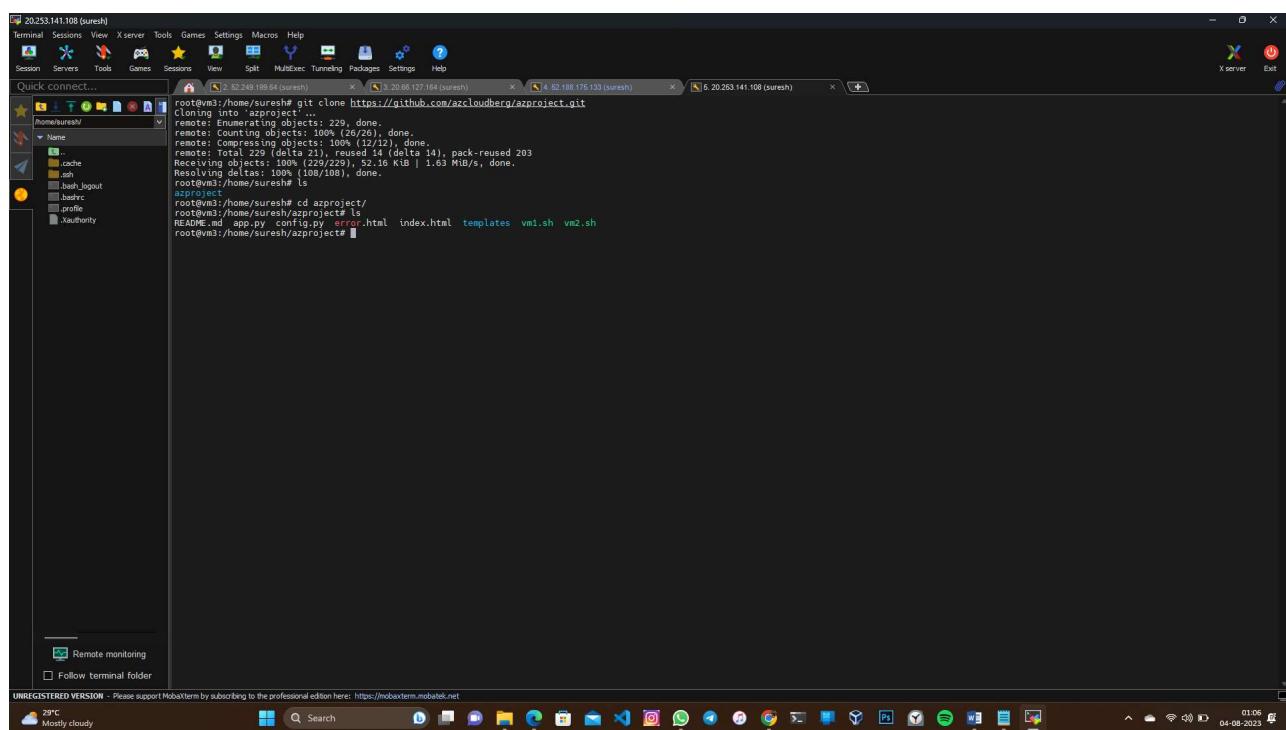
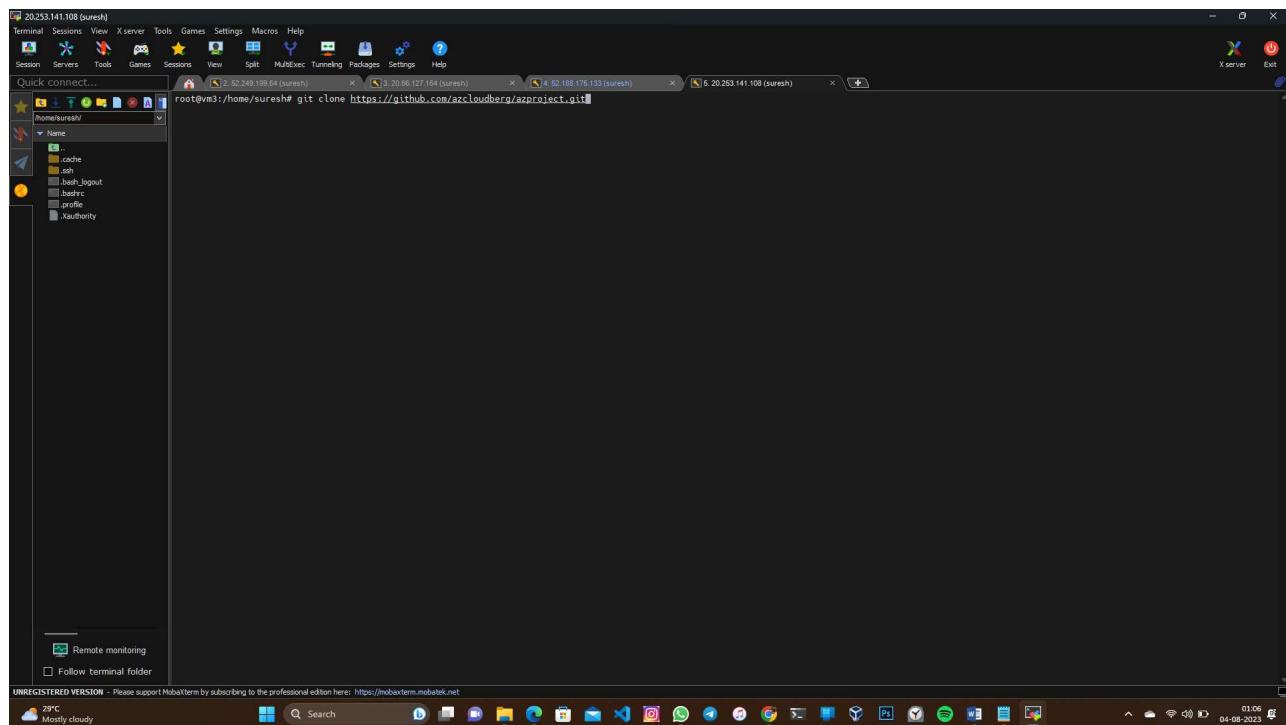
## Run ./vm1

```
root@vm1:/home/suresh# git clone https://github.com/azcloudberg/azproject.git
Cloning into 'azproject'...
remote: Enumerating objects: 229, done.
remote: Counting objects: 100% (26/26), done.
remote: Compressing objects: 100% (12/12), done.
remote: Total 229 (delta 21), reused 14 (delta 14), pack-reused 203
Receiving objects: 100% (229/229), 52.16 KiB | 7.45 MiB/s, done.
Resolving deltas: 100% (108/108), done.
root@vm1:/home/suresh# ls
azproject
root@vm1:/home/suresh# cd azproject/
root@vm1:/home/suresh/azproject# ls
README.md app.py config.py error.html index.html templates vm1.sh vm2.sh
root@vm1:/home/suresh/azproject# ./vm1.sh
Rules updated (v6)
Hit:1 http://azure.archive.ubuntu.com/ubuntu focal InRelease
Hit:2 http://azure.archive.ubuntu.com/ubuntu focal-updates InRelease
Hit:3 http://azure.archive.ubuntu.com/ubuntu focal-backports InRelease
Hit:4 http://azure.archive.ubuntu.com/ubuntu focal-security InRelease
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
python3 is already the newest version (3.8.2-0ubuntu2).
0 upgraded, 0 newly installed, 0 to remove and 14 not upgraded.
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
binutils binutils-common libelf1 libiberty libltdl libncurses5 libncurses5-dev libncursesw5 libncursesw5-dev libstdc++-9-dev libstdc++6 libtsan0 libubsan1 linux-libc-dev make manpages-dev python-pip-wl python3-dev python3-wheel python3.8-dev zlib1g-dev
Suggested packages:
binutils-doc cpp-doc gcc-9-locales debian-keyring g++-multilib gcc-9-doc gcc-multilib autotools libtinfo flex bison gdb gcc-doc gcc-9-multilib libgcc-doc bzr libstdc++-9-doc make-doc
The following NEW packages will be installed:
binutils binutils-common libelf1 libiberty libltdl libncurses5 libncurses5-dev libncursesw5 libncursesw5-dev libstdc++-9-dev libstdc++6 libtsan0 libubsan1 linux-libc-dev make manpages-dev python-pip-wl python3-dev python3-wheel python3.8-dev zlib1g-dev
The following packages will be upgraded:
gcc-10-base libgcc-9-s1 libstdc++-9 3 programs are upgradeable, 0 to remove and 11 not upgraded.
Need to get 52.8 MB of archives.
After this operation, 228 MB of additional disk space will be used.
Do you want to continue? [Y/n] ■
```

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# Launch Vm-03: Update & clone:



Run `./vm1.sh`

A screenshot of a Linux desktop environment, likely MobaXterm, showing several terminal windows and a file browser. The desktop has a dark theme with icons for various applications like Terminal, Sessions, View, X server, Games, Settings, Macros, Help, Session, Servers, Tools, Games, Sessions, View, Split, MuJECexec, Tunneling, Packages, Settings, and Help. A system tray at the bottom shows icons for battery, signal, and network. The terminal windows show command-line activity, including cloning a GitHub repository and performing an apt update followed by an apt upgrade. A file browser window titled 'Quick connect...' is open, showing a directory structure under '/home/suresh/'. The status bar at the bottom indicates an 'UNREGISTERED VERSION' message.

A screenshot of a Linux desktop environment, likely Ubuntu, featuring a terminal window at the top displaying a log of package installations. Below the terminal are several other windows: a file explorer showing a directory tree for 'home/suresh/'; a 'Remote monitoring' window; and a system tray with icons for battery, signal, and system status.

# Create Traffic Manager:

The screenshot shows the Microsoft Azure portal interface. The top navigation bar includes tabs for 'Start Course | Intellipaat', 'Load balancing - Microsoft Azure', 'protstg01 - Microsoft Azure', 'GitHub - azcloudberg/azproject', and 'Module 5 Assignment'. The main content area is titled 'Load balancing | Traffic Manager'. On the left, there's a sidebar with 'Load Balancing Services' and icons for Application Gateway, Front Door and CDN profiles, Load Balancer, and Traffic Manager. The 'Traffic Manager' icon is highlighted. The main content area displays a search bar and filter options ('Subscription equals all', 'Resource group equals all', 'Location equals all'). Below this, it says 'Showing 0 to 0 of 0 records.' and lists columns: 'Name ↑', 'Status ↓', 'Routin... ↓', 'Resource group ↑', and 'Subscription ↑'. In the center, there's a large octagonal icon with arrows pointing in different directions, and the text 'No traffic manager profiles to display'. Below this, a descriptive paragraph explains Azure Traffic Manager as a DNS-based traffic load balancer. At the bottom, there are buttons for 'Create traffic manager profile' and 'Learn more'.

The screenshot shows the 'Create Traffic Manager profile' wizard in the Microsoft Azure portal. The title bar indicates the URL is <https://portal.azure.com/#create/Microsoft.TrafficManagerProfile-ARM>. The main content area is titled 'Create Traffic Manager profile'. It has several input fields: 'Name \*' (containing 'protralman'), 'Routing method' (set to 'Performance'), 'Subscription \*' (selected 'Azure subscription 1'), 'Resource group \*' (selected 'az-104'), and 'Resource group location' (selected 'East US'). At the bottom, there are two buttons: 'Create' (highlighted in blue) and 'Automation options'.

# Traffic manager created:

The screenshot shows the Azure portal interface with the URL <https://portal.azure.com/#@sureshleo1166@gmail.onmicrosoft.com/resource/subscriptions/539f103b-45a1-4227-b8fc-bc0bd650851/resourceGroups/az-104/providers/Microsoft.Network/trafficManagerProfiles/protrafman>. The page displays the 'protrafman' Traffic Manager profile under the 'Microsoft Azure' section. The 'Overview' tab is selected, showing details like Resource group (az-104), Status (Enabled), Subscription (Azure subscription 1), Subscription ID (539f103b-45a1-4227-b8fc-bc0bd650851), and Tags (Add tags). The 'Essentials' section shows the DNS name as <http://protrafman.trafficmanager.net>, Monitor status as Inactive, and Routing method as Performance. A table below lists endpoints with no results found.

# Add dns name in application gateway in frontend IP: Application gateway-01:

The screenshot shows the Azure portal interface with the URL <https://portal.azure.com/#@sureshleo1166@gmail.onmicrosoft.com/resource/subscriptions/539f103b-45a1-4227-b8fc-bc0bd650851/resourceGroups/az-104/providers/Microsoft.Network/publicIPAddresses/apg1ip1>. The page displays the 'apg1ip1' Configuration for an Application Gateway. The 'Configuration' tab is selected, showing settings like IP address assignment (Static, IP address 20.231.30.73), idle timeout (300 seconds), and DNS name label (optional) set to 'apgateway1'. Below this, there are sections for Monitoring (Logs, Metrics, Diagnostic settings), Automation (Tasks (preview), Export template), and Support + troubleshooting (New Support Request).

# Application gateway-02:

The screenshot shows the Microsoft Azure portal interface. The main window displays the 'ap2ip2 | Configuration' page for an Application Gateway Public IP address. The left sidebar includes links for Overview, Activity log, Access control (IAM), Tags, Settings (Configuration selected), Properties, Locks, Monitoring, Automation, Tasks (preview), Export template, Support + troubleshooting, and New Support Request. The main content area shows the IP address assignment as Static, with the IP address set to 20.66.41.65 and an idle timeout of 4 minutes. A DNS name label 'appgateway2' is entered in the 'DNS name label (optional)' field. Below this, there is a table for Alias record sets, which is currently empty. A note indicates that the IP address can also be used as an 'A' DNS record or a 'CNAME' record. The bottom right corner of the main window shows a success message: 'Saved public IP address changes' and 'Successfully saved configuration changes to public IP address: ap2ip2'. The taskbar at the bottom of the screen shows various pinned icons and the date/time as 04-08-2023.

This screenshot is identical to the one above, showing the 'ap2ip2 | Configuration' page. The main difference is the presence of a success message in the top right corner: 'Saved public IP address changes' and 'Successfully saved configuration changes to public IP address: ap2ip2'. The rest of the interface, including the sidebar, DNS name label input field, and the empty Alias record sets table, remains the same.

# Add end points in Traffic Manager:

The screenshot shows the Microsoft Azure portal interface. The left sidebar navigation bar is visible, showing the 'Endpoints' section under 'Load balancing | Traffic Manager > protrafman'. The main content area displays a table of endpoints with one entry: 'end01' (Status: Enabled, Monitor status: Checking endpoint, Type: Azure endpoint, Location: East US). A success message 'Saved Traffic Manager profile changes' is shown in the top right corner. The bottom of the screen shows the Windows taskbar with various pinned icons.

The screenshot shows the Microsoft Azure portal interface with the 'Add endpoint' dialog open. The dialog is titled 'Add endpoint' for the 'protrafman' profile. The 'Type' dropdown is set to 'Azure endpoint'. The 'Name' field contains 'end02'. The 'Target resource type' dropdown is set to 'Public IP address', with 'ap2ip2 (20.66.41.65)' selected. Under 'Health Checks', the 'Enable' radio button is selected. The bottom right of the dialog has a blue 'Add' button. The left sidebar navigation bar is visible, showing the 'Endpoints' section under 'Load balancing | Traffic Manager > protrafman'. The bottom of the screen shows the Windows taskbar with various pinned icons.

The screenshot shows the Microsoft Azure portal interface. The left sidebar navigation includes Home, Load balancing, Traffic Manager, and the selected profile 'protrafman'. Under 'Settings', the 'Endpoints' section is active, showing a table of endpoints:

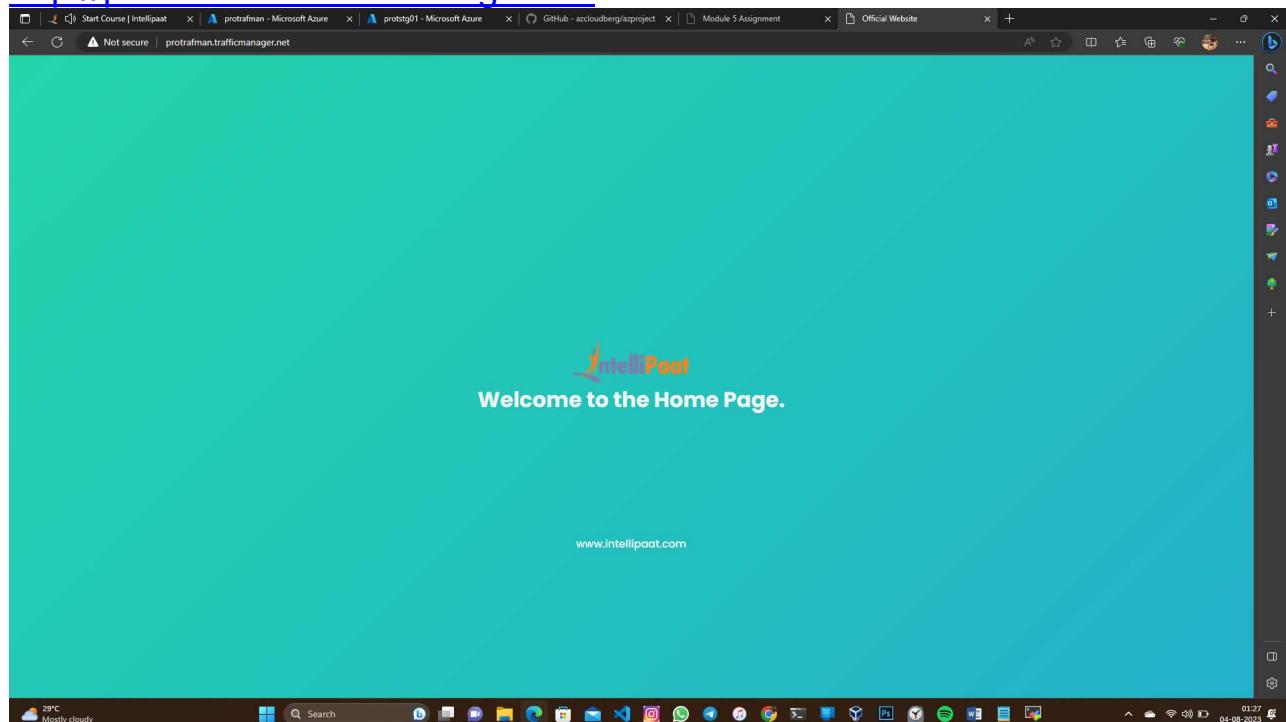
Name	Status	Monitor status	Type	Location
end01	Enabled	Checking endpoint	Azure endpoint	East US
end02	Enabled	Checking endpoint	Azure endpoint	West US

A success message in the top right corner states: 'Saved Traffic Manager profile changes' and 'Successfully saved configuration changes to Traffic Manager profile "protrafman"'. The system tray at the bottom shows the date as 04-08-2023 and time as 01:24.

Done..!!!

## HOME PAGE:

<http://protrafman.trafficmanager.net>



## UPLOAD PAGE:

<http://protrafman.trafficmanager.net/upload>

