

1. Deploy Linux and Windows virtual machine and access them using SSH and RDP

Answer: Windows Virtual machine using RDP:

The image shows two screenshots of the Microsoft Azure portal interface. The top screenshot displays the 'Overview' page for a virtual machine named 'my-first-windows-server'. The VM is running in the 'FIRSTRES' resource group, located in 'Central India'. It has a public IP address of 74.225.177.172. The operating system is Windows, and it was created on 6/14/2025. A warning message at the top indicates that the virtual machine agent status is not ready. The bottom screenshot shows the 'Connect' page for the same VM. It provides connection details such as the admin username 'dhrubansal', port 3389, and just-in-time policy. Under 'Most common', the 'Native RDP' option is highlighted, suggesting connecting via native RDP without additional software. A 'Download RDP file' button is also visible.

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

Home > Compute infrastructure | Virtual machines > my-first-windows-server

my-first-windows-server

my-first-windows-server virtual machine agent status is not ready. Troubleshoot the issue →

Help me copy this VM in any region

Connect Start Restart Stop Hibernate Capture Delete Refresh Open in mobile Feedback CLI / PS

Essentials

Resource group (move) : FIRSTRES
Status : Running
Location : Central India
Subscription (move) : Azure for Students
Subscription ID : 8536b75e-427c-44af-8bef-e4d134df2eaa

Operating system : Windows
Size : Standard B1s (1 vcpu, 1 GiB memory)
Public IP address : 74.225.177.172
Virtual network/subnet : Linux-VM-01-vnet/default
DNS name : Not configured
Health state : -
Time created : 6/14/2025, 1:43 PM UTC

Tags (edit) : Add tags

Properties Monitoring Capabilities (8) Recommendations Tutorials

Virtual machine

Computer name : my-first-window
Operating system : Windows
VM generation : V2

Networking

Public IP address : 74.225.177.172
Public IP address (IPv6) : -

Ad Add or remove favorites by pressing Ctrl+Shift+F

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

Home > Compute infrastructure | Virtual machines > my-first-windows-server

my-first-windows-server | Connect

Refresh Troubleshoot More Options Feedback

Connecting using
Public IP address | 74.225.177.172

Admin username : dhrubansal
Port (change) : 3389 Check access
Just-in-time policy : Unsupported by plan

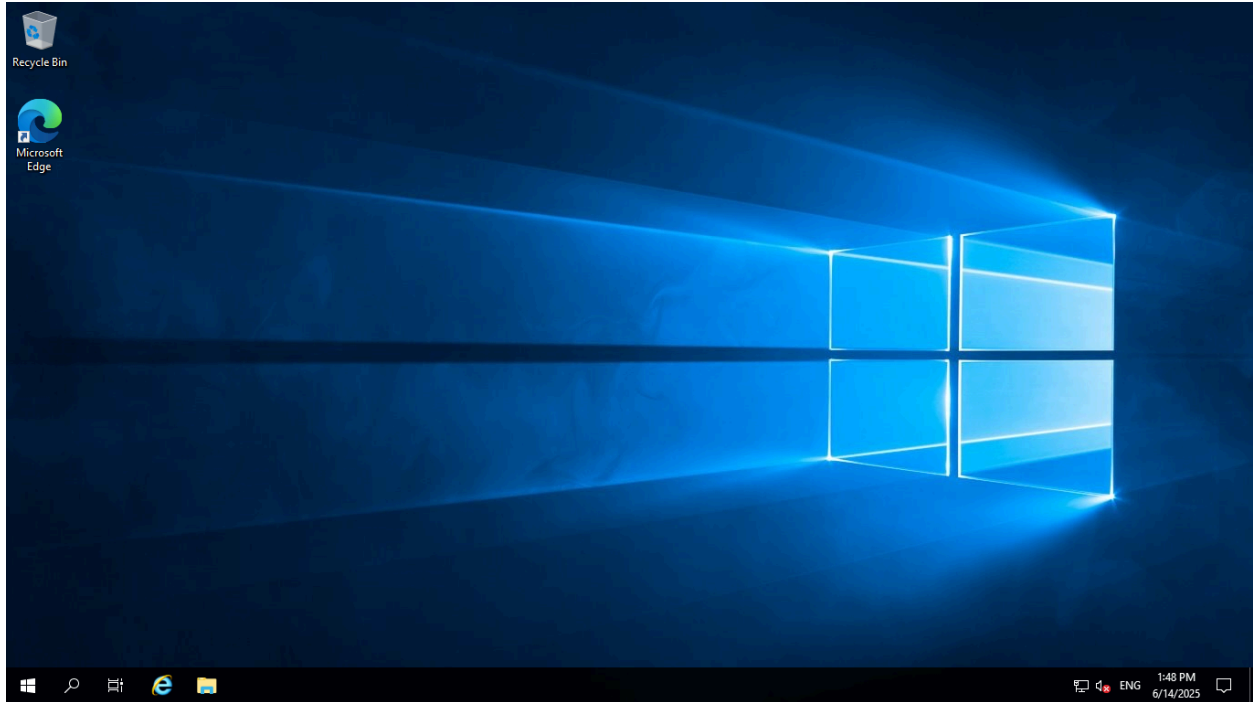
Most common

Native RDP
Connect via native RDP without any additional software needed. Recommended for testing only.
Public IP address (74.225.177.172)

Select Download RDP file

More ways to connect (4)

Ad Add or remove favorites by pressing Ctrl+Shift+F



Linux Virtual machine using SSH:

Microsoft Azure portal interface showing details for a virtual machine named "My-First-Linux-VM".

Overview

Activity log, Access control (IAM), Tags, Diagnose and solve problems, Resource visualizer, Connect, Networking, Settings, Availability + scale, Security, Backup + disaster recovery, Operations, Monitoring, Automation, Help.

Essentials

Resource group (move) : [firstres](#)
Status : Running
Location : Central India
Subscription (move) : [Azure for Students](#)
Subscription ID : 8536b75e-427c-44af-8bef-e4d134df2eaa

Tags (edit) : [Add tags](#)

Properties | Monitoring | Capabilities (7) | Recommendations | Tutorials

Virtual machine

| | |
|------------------|----------------------|
| Computer name | My-First-Linux-VM |
| Operating system | Linux (ubuntu 24.04) |
| VM generation | V2 |
| VM architecture | x64 |
| Ready | |

Networking

| | |
|---------------------------|---|
| Public IP address | 74.225.183.29 (Network interface my-first-linux-vm769) |
| Public IP address (IPv6) | - |
| Private IP address | 10.0.0.4 |
| Private IP address (IPv6) | - |
| Virtual network/subnet | Linux-VM-01-vnet/default |

Operating system : Linux (ubuntu 24.04)
Size : Standard B1s (1 vcpu, 1 GiB memory)
Public IP address : [74.225.183.29](#)
Virtual network/subnet : [Linux-VM-01-vnet/default](#)
DNS name : [Not configured](#)
Health state : -
Time created : 6/14/2025, 2:01 PM UTC

Activate Windows
Go to PC settings to activate Windows.

https://portal.azure.com/?Microsoft_Azure_Education_correlationId=9352447e-48...

```
dhruvbansal@My-First-Linux-VM: ~  
* Using username "dhruvbansal".  
* Authenticating with public key "imported-openssh-key"  
Welcome to Ubuntu 24.04.2 LTS (GNU/Linux 6.11.0-1015-azure x86_64)  
  
* Documentation:  https://help.ubuntu.com  
* Management:    https://landscape.canonical.com  
* Support:       https://ubuntu.com/pro  
  
System information as of Sat Jun 14 14:10:11 UTC 2025  
  
System load:  0.0      Processes:      113  
Usage of /:   5.5% of 28.02GB  Users logged in:  0  
Memory usage: 29%      IPv4 address for eth0: 10.0.0.4  
Swap usage:   0%  
  
Expanded Security Maintenance for Applications is not enabled.  
  
0 updates can be applied immediately.  
  
Enable ESM Apps to receive additional future security updates.  
See https://ubuntu.com/esm or run: sudo pro status  
  
The list of available updates is more than a week old.  
To check for new updates run: sudo apt update  
  
The programs included with the Ubuntu system are free software;  
the exact distribution terms for each program are described in the  
individual files in /usr/share/doc/*/copyright.  
  
Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by  
applicable law.  
  
To run a command as administrator (user "root"), use "sudo <command>".  
See "man sudo_root" for details.  
  
dhruvbansal@My-First-Linux-VM: ~$
```

Activate Windows
Go to PC settings to activate Windows.

2. Create an App Service Plan Provision a Web App in the existing App Service Plan and deploy a simple welcome page on it.

Answer:

The screenshot shows the Microsoft Azure portal interface. The top navigation bar includes the Microsoft Azure logo, a search bar, and user information. The left sidebar shows the 'App Service plans' section with a 'Create' button and a list of plans. The main content area displays the 'MyAppServicePlan' overview page. The page includes a search bar, a 'Delete' button, and a 'Send us your feedback' link. The 'Overview' tab is selected, showing various metrics and settings. The 'Essentials' section lists details such as Resource group, Status, Location, Subscription, and Subscription ID. The 'Pricing plan' section shows the current plan and instance count. The 'Data In' section shows the data input. The 'CPU Percentage' and 'Memory Percentage' sections show the usage of these resources. The 'Data In' section shows the data input. The 'Activate Windows' watermark is visible in the bottom right corner.

The screenshot shows the Microsoft Azure portal interface. The top navigation bar includes the Microsoft Azure logo, a search bar, and user information. The left sidebar shows the 'Microsoft.Web-WebApp-Portal-2db1b557-b704' section with a 'Deployment' button and a list of deployments. The main content area displays the 'Microsoft.Web-WebApp-Portal-2db1b557-b704' overview page. The page includes a search bar, a 'Delete' button, a 'Cancel' button, a 'Redeploy' button, a 'Download' button, and a 'Refresh' button. The 'Overview' tab is selected, showing a 'Your deployment is complete' message. The 'Deployment details' section lists details such as Deployment name, Subscription, Resource group, Start time, and Correlation ID. The 'Next steps' section includes a 'Go to resource' button. The 'Cost management' section shows the current cost and a link to 'Set up cost alerts'. The 'Microsoft Defender for Cloud' section shows the current status and a link to 'Go to Microsoft Defender for Cloud'. The 'Free Microsoft tutorials' section shows a link to 'Start learning today'. The 'Work with an expert' section shows a link to 'Find an Azure expert'. The 'Activate Windows' watermark is visible in the bottom right corner.

Welcome to My first web app service using web app service plan.

Activate Windows
Go to PC settings to activate Windows.

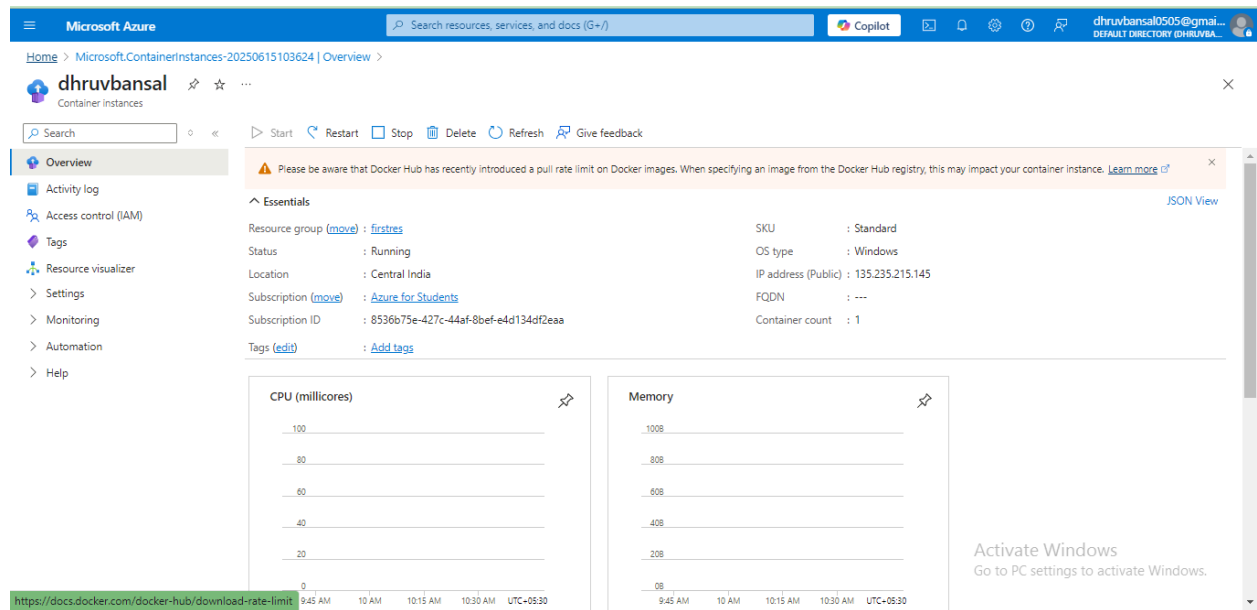
3. Create ACR and pull image from ACR and Create a container from it.

Answer:

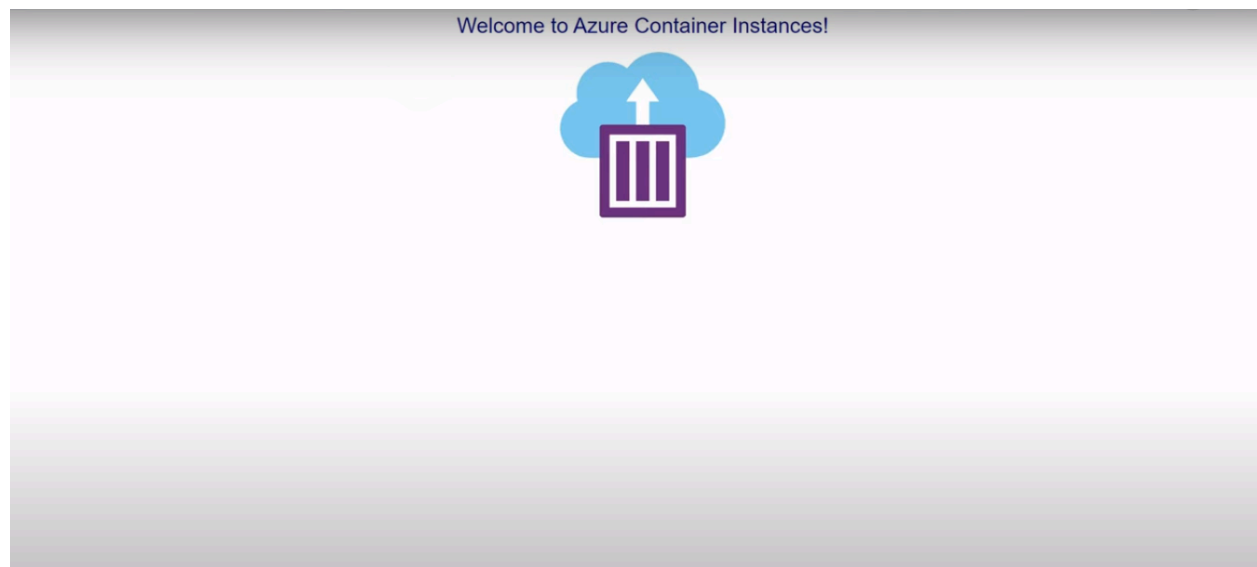
The screenshot displays the Microsoft Azure portal interface. At the top, the header shows 'Microsoft Azure' with a search bar and user information. The main content area is titled 'dhruvacr Container registry'. On the left, a navigation pane lists various options: Overview (selected), Activity log, Access control (IAM), Tags, Quick start, Resource visualizer, Events, Settings, Services, Repository permissions, Policies, Monitoring, Automation, and Help. The 'Overview' section is active, showing 'Essentials' with details like Resource group (firstres), Location (Central India), Subscription (Azure for Students), Subscription ID, Soft delete (Preview) (Disabled), and Tags (Add tags). It also lists Login server (dhruvacrazurecr.io), Creation date (6/14/2023, 9:22 PM GMT+5:30), Provisioning state (Succeeded), Pricing plan (Basic), and Domain name label scope (Unsecure). Below this, there are tabs for 'Get started', 'Monitoring', 'Capabilities (9)', and 'Tutorials'. A central message states 'Simplify container lifecycle management' and explains that Container registry allows building, storing, and managing container images and artifacts. At the bottom, there are three action buttons: 'Push a Container Image', 'Manage your access controls', and 'Deploy a container image'. An 'Activate Windows' watermark is visible in the bottom right corner.

4. Create Container Instance and deploy a simple docker application on it. Create Container Groups and test functionality.

Answer: Container Instance



The screenshot displays the Microsoft Azure portal interface for a Container Instance. The top navigation bar shows the user's name 'dhrubansal' and the account type 'DEFAULT DIRECTORY (DHRUBANSA...)'. The main content area is titled 'Container Instances' and shows the 'Overview' tab selected. A warning message at the top states: 'Please be aware that Docker Hub has recently introduced a pull rate limit on Docker Images. When specifying an image from the Docker Hub registry, this may impact your container instance. [Learn more](#)'. Below this, the 'Essentials' section lists key details: Resource group (move) : firstres, Status : Running, Location : Central India, Subscription (move) : Azure for Students, Subscription ID : 8536b75e-427c-44af-8bef-e4d134df2eaa, Tags (edit) : Add tags, SKU : Standard, OS type : Windows, IP address (Public) : 135.235.215.145, FQDN : ---, and Container count : 1. Two performance graphs are shown: 'CPU (millicores)' and 'Memory', both with a scale from 0 to 100. A link to 'JSON View' is available on the right. At the bottom, there is a link to 'https://docs.docker.com/docker-hub/download-rate-limit' and a timestamp '9:45 AM 10 AM 10:15 AM 10:30 AM UTC-05:30'. A 'Welcome to Azure Container Instances!' banner is visible at the bottom of the page.



5(A) Create a Vnet, 2 Subnets Subnet-1: Linux VM, WindowsVM Subnet-2: SQL DB.

Answer: VNet Creation

Microsoft Azure

Search resources, services, and docs (G+)

Copilot

dhruvbansal0505@gmail...
DEFAULT DIRECTORY (DHURVBA...)

Home > Create a resource > Marketplace > Virtual network >

Create virtual network

Basics Security IP addresses Tags Review + create

+ Add a subnet

10.0.0.0/16 [Delete address space](#)

This address prefix overlaps with virtual network 'Linux-VM-01-vnet'. If you intend to peer these virtual networks, change the address space. [Learn more](#)

10.0.0.0 /16
10.0.0.0 - 10.0.255.255 65,536 addresses

| Subnets | IP address range | Size | NAT gateway |
|---------|-----------------------|---------------------|-------------|
| default | 10.0.0.0 - 10.0.0.255 | /24 (256 addresses) | - |

Add IPv4 address space

Previous Next Review + create

Activate Windows
Go to PC settings to activate Windows.
[Give feedback](#)

Microsoft Azure

Search resources, services, and docs (G+)

Copilot

dhruvbansal0505@gmail...
DEFAULT DIRECTORY (DHURVBA...)

Home > MyVNet-1749967285288 | Overview >

MyVNet

Virtual network

Search

Overview

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

Move Delete Refresh Give feedback

Essentials

Resource group (move) : [DefaultResourceGroup-CIN](#)
Location (move) : Central India
Subscription (move) : [Azure for Students](#)
Subscription ID : 8536b75e-427c-44af-8bef-e4d134df2eaa
Tags (edit) : [Add tags](#)

Address space : 10.0.0.0/16
DNS servers : [Azure provided DNS service](#)
BGP community string : [Configure](#)
Virtual network ID : f72c113c-a19b-486c-9a48-3155fb7a7f03

Topology Properties Capabilities (5) Recommendations Tutorials

DDoS protection
Configure additional protection from distributed denial of service attacks.
● Not configured

Azure Firewall
Protect your network with a stateful L3-L7 firewall.
● Not configured

Peerings
Seamlessly connect two or more virtual networks.
● Not configured

Microsoft Defender for Cloud
Strengthen the security posture of your environment.

Private endpoints
Privately access Azure services without exposing traffic to the internet.

Activate Windows
Go to PC settings to activate Windows.

Add or remove favorites by pressing Ctrl+Shift+F

Windows Virtual Machine in Subnet-1

The screenshot displays the Azure portal interface for a virtual machine named 'windows-vm'. The left sidebar contains navigation options such as Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Resource visualizer, Connect, Networking, Settings, Availability + scale, Security, Backup + disaster recovery, Operations, Monitoring, Automation, and Help. The main content area shows the 'Overview' tab with a warning banner indicating the virtual machine agent status is not ready. Below this, there are buttons for Connect, Start, Restart, Stop, Hibernate, Capture, Delete, Refresh, Open in mobile, Feedback, and CLI/PS. The 'Essentials' section provides key details: Resource group (DefaultResourceGroup-CIN), Status (Running), Location (Central India), Subscription (Azure for Students), and Subscription ID (8536b75e-427c-44af-8bef-e4d134df2ea). The 'Properties' section lists the Computer name (windows-vm), Operating system (Windows), and VM generation (V2). The 'Networking' section shows the Public IP address (4.213.113.160), Public IP address (IPv6) (-), Private IP address (10.0.1.4), and Virtual network/subnet (MyVNet/subnet-1). A watermark for 'Activate Windows' is visible in the bottom right corner.

Microsoft Azure

Home > CreateVm-MicrosoftWindowsServer.WindowsServer-201-20250615113454 | Overview >

windows-vm
Virtual machine

Search

windows-vm virtual machine agent status is not ready. Troubleshoot the issue ->

Help me copy this VM in any region

Connect Start Restart Stop Hibernate Capture Delete Refresh Open in mobile Feedback CLI / PS

Essentials

Resource group (move) : [DefaultResourceGroup-CIN](#)

Status : Running

Location : Central India

Subscription (move) : [Azure for Students](#)

Subscription ID : 8536b75e-427c-44af-8bef-e4d134df2ea

Tags (edit) : [Add tags](#)

Operating system : Windows

Size : Standard B1s (1 vcpu, 1 GiB memory)

Public IP address : [4.213.113.160](#)

Virtual network/subnet : [MyVNet/subnet-1](#)

DNS name : [Not configured](#)

Health state : -

Time created : 6/15/2025, 6:07 AM UTC

Properties Monitoring Capabilities (8) Recommendations Tutorials

Virtual machine

Computer name : windows-vm

Operating system : Windows

VM generation : V2

Networking

Public IP address : [4.213.113.160](#) (Network interface windows-vm48)

Public IP address (IPv6) : -

Private IP address : 10.0.1.4

Activate Windows
Go to PC settings to activate Windows.

Windows vm in subnet -2

The screenshot displays the Azure portal interface for a virtual machine named 'windows-vm-1'. The left sidebar contains navigation options such as Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Resource visualizer, Connect, Networking, Settings, Availability + scale, Security, Backup + disaster recovery, Operations, Monitoring, Automation, and Help. The main content area shows the 'Overview' tab with a warning banner indicating the virtual machine agent status is not ready. Below this, there are buttons for Connect, Start, Restart, Stop, Hibernate, Capture, Delete, Refresh, Open in mobile, Feedback, and CLI/PS. The 'Essentials' section provides key details: Resource group (DefaultResourceGroup-CIN), Status (Running), Location (Central India), Subscription (Azure for Students), and Subscription ID (8536b75e-427c-44af-8bef-e4d134df2ea). The 'Properties' section lists the Computer name (windows-vm-1), Operating system (Windows), and VM generation (V2). The 'Networking' section shows the Public IP address (4.247.128.233), Public IP address (IPv6) (-), Private IP address (10.0.1.5), and Virtual network/subnet (MyVNet/subnet-1). A watermark for 'Activate Windows' is visible in the bottom right corner.

Microsoft Azure

Home > CreateVm-MicrosoftWindowsServer.WindowsServer-201-20250615115913 | Overview >

windows-vm-1
Virtual machine

Search

windows-vm-1 virtual machine agent status is not ready. Troubleshoot the issue ->

Help me copy this VM in any region

Connect Start Restart Stop Hibernate Capture Delete Refresh Open in mobile Feedback CLI / PS

Essentials

Resource group (move) : [DefaultResourceGroup-CIN](#)

Status : Running

Location : Central India

Subscription (move) : [Azure for Students](#)

Subscription ID : 8536b75e-427c-44af-8bef-e4d134df2ea

Tags (edit) : [Add tags](#)

Operating system : Windows

Size : Standard B1s (1 vcpu, 1 GiB memory)

Public IP address : [4.247.128.233](#)

Virtual network/subnet : [MyVNet/subnet-1](#)

DNS name : [Not configured](#)

Health state : -

Time created : 6/15/2025, 6:30 AM UTC

Properties Monitoring Capabilities (8) Recommendations Tutorials

Virtual machine

Computer name : windows-vm-1

Operating system : Windows

VM generation : V2

Networking

Public IP address : [4.247.128.233](#) (Network interface windows-vm-1102)

Public IP address (IPv6) : -

Private IP address : 10.0.1.5

Activate Windows
Go to PC settings to activate Windows.

6. Create a Internal and External Load Balancer.

Answer: Internal and External Load Balancer using Azure.

First windows VM

The screenshot displays the Azure portal interface for a virtual machine named 'windows-vm'. The left sidebar contains navigation options such as Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Resource visualizer, Connect, Networking, Settings, Availability + scale, Security, Backup + disaster recovery, Operations, Monitoring, Automation, and Help. The main content area shows the VM's status as 'Running' and provides various management actions like Start, Restart, Stop, Hibernation, Capture, Delete, Refresh, Open in mobile, Feedback, and CLI/PS. A table of 'Essentials' lists properties: Resource group (DefaultResourceGroup-CIN), Status (Running), Location (Central India), Subscription (Azure for Students), and Subscription ID (8536b75e-427c-44af-8bef-e4d134df2eaa). Another table on the right lists details: Operating system (Windows), Size (Standard B1s (1 vcpu, 1 GiB memory)), Public IP address (4.213.113.160), Virtual network/subnet (MyVNet/subnet-1), DNS name (Not configured), Health state (-), and Time created (6/15/2025, 6:07 AM UTC). A 'Properties' section at the bottom lists Computer name (windows-vm), Operating system (Windows), and VM generation (V2). A 'Networking' section shows Public IP address (4.213.113.160), Public IP address (IPv6) (-), and Private IP address (10.0.1.4). A watermark 'Activate Windows. Go to PC settings to activate Windows.' is visible on the right side.




Second windows VM

The screenshot displays the Azure portal interface for a virtual machine named 'windows-vm-1'. The left sidebar contains navigation options such as Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Resource visualizer, Connect, Networking, Settings, Availability + scale, Security, Backup + disaster recovery, Operations, Monitoring, Automation, and Help. The main content area shows the VM's status as 'Running' and provides various management actions like Start, Restart, Stop, Hibernation, Capture, Delete, Refresh, Open in mobile, Feedback, and CLI/PS. A table of 'Essentials' lists properties: Resource group (DefaultResourceGroup-CIN), Status (Running), Location (Central India), Subscription (Azure for Students), and Subscription ID (8536b75e-427c-44af-8bef-e4d134df2eaa). Another table on the right lists details: Operating system (Windows), Size (Standard B1s (1 vcpu, 1 GiB memory)), Public IP address (4.247.128.233), Virtual network/subnet (MyVNet/subnet-1), DNS name (Not configured), Health state (-), and Time created (6/15/2025, 6:30 AM UTC). A 'Properties' section at the bottom lists Computer name (windows-vm-1), Operating system (Windows), and VM generation (V2). A 'Networking' section shows Public IP address (4.247.128.233), Public IP address (IPv6) (-), and Private IP address (10.0.1.5). A watermark 'Activate Windows. Go to PC settings to activate Windows.' is visible on the right side.

Internal And External LoadBalancer:


[Home](#) > [myResourceGroup](#) > [myInternalLoadBalancer](#)


[+ Create](#) [Azure Policy](#) [Change history](#)


**myInternalLoadBalancer**  


Internal Load Balancer


<< [+ Create](#) [AzurePolicy](#) [Change history](#) [Delete](#)

 Overview


 Activity log


 Access control (IAM)


 Tags


 Diagnose and solve problems


Settings


 Frontend IP configuration

 Backend pools


 Health probes

 Load balancing rules

 NAT rules

 Locks

Essentials


Subscription 
[Azure subscription 1](#)

Location
[\(US\) East US](#)

Status
Succeeded

Frontend public IP
[LoadBalancerFrontend](#)

Backend pool
[myBackEndPool](#)

Subscription ID


Location
myResourceGroup

Status
Succeeded

Load balancing rule
[myHealthProbe](#)

Inbound NAT rule
None

Frontends

10.0.0.4
LoadBalancerFrontend

Backend pools

[myBackEndPool](#)
2 online

Load balancing rules

1 total / 0 disabled

Health probes

Load balancing rules

7. Create and test Azure Application gateway.

Answer: Vnet creation:

The screenshot shows the 'Create virtual network' wizard in the Microsoft Azure portal, specifically the 'IP addresses' tab. The wizard is for a virtual network named 'Linux-VM-01-vnet'. The address space is set to 10.0.0.0/16. A warning message states: 'This address prefix overlaps with virtual network 'Linux-VM-01-vnet'. If you intend to peer these virtual networks, change the address space. [Learn more](#)'. Below the warning, there is a table for subnets:

| Subnets | IP address range | Size | NAT gateway |
|---------|-----------------------|---------------------|-------------|
| default | 10.0.0.0 - 10.0.0.255 | /24 (256 addresses) | - |

At the bottom, there is a button to 'Add IPv4 address space'. The right side of the screen shows the 'Activate Windows' watermark and a link to 'Go to PC settings to activate Windows'.

The screenshot shows the 'MyVNet' overview page in the Microsoft Azure portal. The page displays the following information:

- Resource group:** DefaultResourceGroup-CIN
- Location:** Central India
- Subscription:** Azure for Students
- Subscription ID:** 8536b75e-427c-44af-8bef-e4d134df2eaa
- Address space:** 10.0.0.0/16
- DNS servers:** Azure provided DNS service
- BGP community string:** Configure
- Virtual network ID:** f72c113c-a19b-486c-9a48-3155fb7a7f03

The page also shows a list of capabilities that are not configured:

- DDoS protection
- Azure Firewall
- Peering
- Microsoft Defender for Cloud
- Private endpoints

The right side of the screen shows the 'Activate Windows' watermark and a link to 'Go to PC settings to activate Windows'.

Windows vm -1 in subnet-1

The screenshot displays the Azure portal interface for a virtual machine named 'windows-vm'. The left sidebar contains navigation links for Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Resource visualizer, Connect, Networking, Settings, Availability + scale, Security, Backup + disaster recovery, Operations, Monitoring, Automation, and Help. The main content area shows the 'Overview' tab with a search bar and a warning message: 'windows-vm virtual machine agent status is not ready. Troubleshoot the issue ->'. Below this is a button 'Help me copy this VM in any region' and a row of action buttons: Connect, Start, Restart, Stop, Hibernate, Capture, Delete, Refresh, Open in mobile, Feedback, and CLI / PS. The 'Essentials' section provides key details: Resource group (DefaultResourceGroup-CIN), Status (Running), Location (Central India), Subscription (Azure for Students), and Subscription ID (8536b75e-427c-44af-8bef-e4d134df2eaa). It also lists Tags (Add tags) and a JSON View link. The 'Properties' section shows the Virtual machine details: Computer name (windows-vm), Operating system (Windows), and VM generation (V2). The 'Networking' section shows the Public IP address (4.213.113.160), Public IP address (IPv6) (-), Private IP address (10.0.1.4), and Virtual network/subnet (MyVNet/subnet-1). A watermark 'Activate Windows. Go to PC settings to activate Windows.' is visible in the background.

| Property | Value |
|------------------------|--------------------------------------|
| Resource group | DefaultResourceGroup-CIN |
| Status | Running |
| Location | Central India |
| Subscription | Azure for Students |
| Subscription ID | 8536b75e-427c-44af-8bef-e4d134df2eaa |
| Operating system | Windows |
| Size | Standard B1s (1 vcpu, 1 GiB memory) |
| Public IP address | 4.213.113.160 |
| Virtual network/subnet | MyVNet/subnet-1 |
| DNS name | Not configured |
| Health state | - |
| Time created | 6/15/2025, 6:07 AM UTC |

| Property | Value |
|------------------|------------|
| Computer name | windows-vm |
| Operating system | Windows |
| VM generation | V2 |

| Property | Value |
|--------------------------|---------------|
| Public IP address | 4.213.113.160 |
| Public IP address (IPv6) | - |
| Private IP address | 10.0.1.4 |

Windows-vm-2 in subnet-1

The screenshot displays the Azure portal interface for a virtual machine named 'windows-vm-1'. The left sidebar contains navigation links for Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Resource visualizer, Connect, Networking, Settings, Availability + scale, Security, Backup + disaster recovery, Operations, Monitoring, Automation, and Help. The main content area shows the 'Overview' tab with a search bar and a warning message: 'windows-vm-1 virtual machine agent status is not ready. Troubleshoot the issue ->'. Below this is a button 'Help me copy this VM in any region' and a row of action buttons: Connect, Start, Restart, Stop, Hibernate, Capture, Delete, Refresh, Open in mobile, Feedback, and CLI / PS. The 'Essentials' section provides key details: Resource group (DefaultResourceGroup-CIN), Status (Running), Location (Central India), Subscription (Azure for Students), and Subscription ID (8536b75e-427c-44af-8bef-e4d134df2eaa). It also lists Tags (Add tags) and a JSON View link. The 'Properties' section shows the Virtual machine details: Computer name (windows-vm-1), Operating system (Windows), and VM generation (V2). The 'Networking' section shows the Public IP address (4.247.128.233), Public IP address (IPv6) (-), Private IP address (10.0.1.5), and Virtual network/subnet (MyVNet/subnet-1). A watermark 'Activate Windows. Go to PC settings to activate Windows.' is visible in the background.

| Property | Value |
|------------------------|--------------------------------------|
| Resource group | DefaultResourceGroup-CIN |
| Status | Running |
| Location | Central India |
| Subscription | Azure for Students |
| Subscription ID | 8536b75e-427c-44af-8bef-e4d134df2eaa |
| Operating system | Windows |
| Size | Standard B1s (1 vcpu, 1 GiB memory) |
| Public IP address | 4.247.128.233 |
| Virtual network/subnet | MyVNet/subnet-1 |
| DNS name | Not configured |
| Health state | - |
| Time created | 6/15/2025, 6:30 AM UTC |

| Property | Value |
|------------------|--------------|
| Computer name | windows-vm-1 |
| Operating system | Windows |
| VM generation | V2 |

| Property | Value |
|--------------------------|---------------|
| Public IP address | 4.247.128.233 |
| Public IP address (IPv6) | - |
| Private IP address | 10.0.1.5 |

Public ip address

The screenshot shows the Microsoft Azure portal interface. The top navigation bar includes the Microsoft Azure logo, a search bar, and user information. The main content area displays the 'app-gw' Public IP address overview. On the left, there is a sidebar with navigation links: Overview, Activity log, Access control (IAM), Tags, Resource visualizer, Settings, Monitoring, Automation, and Help. The 'Overview' tab is selected. The main content area shows the 'Essentials' section with a table of properties: Resource group (DefaultResourceGroup-CIN), Location (Central India), Subscription (Azure for Students), and Subscription ID (8536b75e-427c-44af-8bef-e4d134df2eaa). Below this, there are links for 'Tags (edit)' and 'Add tags'. The 'Get Started' section includes links for 'Properties' and 'Tutorials'. A banner at the bottom encourages using public IP addresses for public connections to Azure resources, with links to 'Associate to a resource', 'Configure a public IP address', and 'Protect IP address'.

Microsoft Azure

Search resources, services, and docs (G+I)

Copilot

dhruvbansal0505@gmail...
DEFAULT DIRECTORY (DHURVBA...)

Home > PublicIPAddress-ARM | Overview >

app-gw
Public IP address

Search

Associate X Dissociate Delete → Move ↻ Refresh Open in mobile Give feedback

Overview

Activity log

Access control (IAM)

Tags

Resource visualizer

Settings

Monitoring

Automation

Help

Essentials

Resource group (move) : DefaultResourceGroup-CIN

Location (move) : Central India

Subscription (move) : Azure for Students

Subscription ID : 8536b75e-427c-44af-8bef-e4d134df2eaa

SKU : Standard

Tier : Regional

IP address : 20.235.208.248

DNS name : dhruvfh.centralindia.cloudapp.azure.com

Domain name label scope : -

Associated to : -

Virtual machine : -

Routing preference : Microsoft network

Tags (edit) : Add tags

Get Started Properties Tutorials

Use public IP addresses for public connections to Azure resources

Associate and configure public IP addresses to various Azure resources [Learn more.](#)

Associate to a resource

Configure a public IP address

Protect IP address

Activate Windows
Go to PC settings to activate Windows.

Application gateway:

The screenshot shows the Microsoft Azure portal interface for creating a new application gateway. The top navigation bar includes the Microsoft Azure logo, a search bar, and user information. The main content area displays the 'Create application gateway' wizard. The 'Basics' tab is selected, showing the 'Project details' section. The 'Subscription' is set to 'Azure for Students', and the 'Resource group' is 'DefaultResourceGroup-CIN'. The 'Instance details' section shows the 'Application gateway name' as 'MyappGateway', the 'Region' as 'Central India', and the 'Tier' as 'Standard V2'. The 'Enable autoscaling' option is set to 'Yes'. The 'Previous' and 'Next: Frontends >' buttons are visible at the bottom.

Microsoft Azure

Search resources, services, and docs (G+I)

Copilot

dhruvbansal0505@gmail...
DEFAULT DIRECTORY (DHURVBA...)

Home > Create a resource > Marketplace >

Create application gateway

Changes you make on this tab may affect any configuration you've done on other tabs. Review all options prior to creating the application gateway.

Basics Frontends Backends Configuration Tags Review + create

An application gateway is a web traffic load balancer that enables you to manage traffic to your web application. [Learn about creating 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 for Students

Resource group * DefaultResourceGroup-CIN
[Create new](#)

Instance details

Application gateway name * MyappGateway

Region * Central India

Tier Standard V2

Enable autoscaling Yes No

Previous Next: Frontends >

Activate Windows
Go to PC settings to activate Windows.

8. Set up a domain, setup a server on a VM and use the DNS server for traffic.

Answer: Domain Setup

The screenshot displays the Microsoft Azure portal interface for a DNS zone named **dhruv.ml**. The left sidebar shows the navigation menu with options like Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Resource visualizer, Settings, DNS Management, Monitoring, Automation, and Help. The main content area is titled "DNS zone" and includes a search bar and a toolbar with actions such as Child zone, Record sets, DNSSEC, Import, Export, Move, Refresh, Delete, and Give feedback. Below the toolbar, the "Essentials" section provides key details: Resource group (DefaultResourceGroup-CIN), Location (Global), Subscription (Azure for Students), Subscription ID (8536b75e-427c-44af-8bef-e4d134df2eaa), Recordsets (2), and Tags (Add tags). To the right, the "Max number of record s..." is set to 10000, and four name servers are listed: ns1-08.azure-dns.com, ns2-08.azure-dns.net, ns3-08.azure-dns.org, and ns4-08.azure-dns.info. A "JSON View" link is available. The "Get Started" section includes links to Tutorials and Tools + SDK, followed by a brief description of Azure DNS. At the bottom, four tiles offer guidance: "Add DNS record sets", "Import record sets from file", "Access control", and "Azure DNS Documentation". A "Activate Windows" watermark is visible in the bottom right corner.

Microsoft Azure

Search resources, services, and docs (G+)

Copilot

dhruvbansal0505@gmail...
DEFAULT DIRECTORY (DHURVBA...)

Home > dhruv.ml_1749980522018 | Overview >

dhruv.ml ★ ...
DNS zone

Search

Overview

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

+ Child zone Record sets DNSSEC Import Export Move Refresh Delete Give feedback

Essentials

Resource group (move) : [DefaultResourceGroup-CIN](#)

Location : Global

Subscription (move) : [Azure for Students](#)

Subscription ID : 8536b75e-427c-44af-8bef-e4d134df2eaa

Recordsets : 2

Tags (edit) : [Add tags](#)

Max number of record s... : 10000

Name server 1 : ns1-08.azure-dns.com

Name server 2 : ns2-08.azure-dns.net

Name server 3 : ns3-08.azure-dns.org

Name server 4 : ns4-08.azure-dns.info

[JSON View](#)

Get Started Tutorials Tools + SDK

Azure DNS is a hosting service for DNS domains that provides name resolution by using Microsoft Azure infrastructure. By hosting your domains in Azure, you can manage your DNS records by using the same credentials, APIs, tools, and billing as your other Azure services.

Add DNS record sets
Begin hosting your domain in Azure DNS by adding record sets. A record set is a collection of records in a zone that have the same name and are the same type.

Import record sets from file
You have the option to import your zone directly using the import utility. This utility offers a rapid, dependable, and convenient method for transferring DNS zone data into or out of Azure DNS.

Access control
View your level of access to DNS zone. Review the level of access a user, group, service principal, or managed identity has to this DNS zone.

Azure DNS Documentation
For detail understanding of Azure DNS, refer to the documentation.

Activate Windows
Go to PC settings to activate Windows.

Add or remove favorites by pressing Ctrl+Shift+F

Add Record Set:

Add record set



dhruv.ml

Name

.dhruv.ml

Type

A – IPv4 Address records



Alias record set ⓘ

No



TTL *

1

TTL unit

Hours



IP address

0.0.0.0

Activate Windows

Go to PC settings to activate Windows.

Add

Cancel



[Give feedback](#)

Operations:

Operation details



Operation ID

Copy to clipboard

/subscriptions/8536b75e-427c-44af-8bef-e4d134df2eaa/resourceGroups/DefaultRe...

Operation name

CA4CB55829D80C7B

Provisioning operation

Create

Provisioning state

Succeeded

Timestamp

6/15/2025, 3:12:11 PM

Duration

8 seconds

Tracking ID

cd00b803-9f03-4c04-849b-c267acfd31a8

serviceRequestId

959e9efa-f854-4d09-b2e9-1bbd93c71b39

Status

Created

Type

Microsoft.Network/dnsZones

Activate Windows
Go to PC settings to activate Windows.

Import DNS from Files:

Microsoft Azure

Search resources, services, and docs (G+I)

Copilot


dhruvbansal0505@gmail...
DEFAULT DIRECTORY (DHHRUBA...

Home > dhruv.ml_1749980522018 | Overview > dhruv.ml >

Import DNS zone ...

Basics Summary

A DNS zone file is a text file that contains details of every Domain Name System (DNS) record in the zone. It follows a standard format, making it suitable for transferring DNS records between DNS systems. Using a zone file is a quick, reliable and convenient way to transfer a DNS zone into or out of Azure DNS. It's important to note that files should not exceed 10,000 lines, and the DNS zone import feature currently supports a maximum of 3000 record sets. [Learn more](#)

Upload a DNS zone file 

Select file

Browse

DNS Zone Editor

1 Copy your DNS zone here

Review Create

< Previous

Next : Summary >

Activate Windows
Go to PC settings to activate Windows.
[Give feedback](#)

9. Create a Storage account and explore all the option while creating Upload and access the blob Go through different Auth. Tech and test the same Try Azure storage explorer Provision Access keys and use them for connection with storage account Create a Shared access signature and check access scope Create a stored access policy over shared access signature and check access scope Learn about different access tiers and their use cases Apply lifecycle policy over objects and test the same test object replication in blob Create a file share and test functionality Create a Azure File sync.

Answer:

Storage Account Creation

The screenshot displays the 'dhurvstorage' Storage account Overview page in the Microsoft Azure portal. The left sidebar contains a navigation menu with options like Activity log, Tags, Diagnose and solve problems, Access Control (IAM), Data migration, Events, Storage browser, Storage Mover, Partner solutions, Resource visualizer, Data storage, Security + networking, Data management, Settings, Monitoring, and Monitoring (classic). The main content area is divided into 'Essentials' and 'Properties' sections. The 'Essentials' section shows account details: Resource group (DefaultResourceGroup-CIN), Location (centralindia), Subscription (Azure for Students), Subscription ID (8536b75e-427c-44af-8bef-e4d134df2eaa), Disk state (Available), and Tags (Add tags). The 'Properties' section is divided into 'Blob service' and 'Security' tabs. The 'Blob service' tab shows settings for Hierarchical namespace (Disabled), Default access tier (Hot), Blob anonymous access (Disabled), Blob soft delete (Enabled (7 days)), Container soft delete (Enabled (7 days)), Versioning (Disabled), Change feed (Disabled), and NFS v3 (Disabled). The 'Security' tab shows settings for Require secure transfer for REST API operations (Enabled), Storage account key access (Enabled), Minimum TLS version (Version 1.2), and Infrastructure encryption (Disabled). A 'Networking' section at the bottom shows 'Allow access from' (All networks) and 'Private endpoint connections' (0). An 'Activate Windows' watermark is visible in the bottom right corner.

Storage Access Keys

The screenshot displays the 'dhurvstorage' Storage account Access keys page in the Microsoft Azure portal. The left sidebar shows the 'Access keys' section selected under 'Security + networking'. The main content area provides instructions on how to use access keys and includes a 'Set rotation reminder' button. Below the instructions, there are two key entries: 'key1' and 'key2'. Each key entry shows the 'Storage account name' (dhurvstorage), the 'Last rotated' date (6/15/2025 (0 days ago)), and a 'Rotate key' button. The 'Key' field is masked with dots, and a 'Show' button is provided to reveal the key. The 'Connection string' field is also masked with dots, and a 'Show' button is provided to reveal the connection string. An 'Activate Windows' watermark is visible in the bottom right corner.

Container creation and Uploading files:

The screenshot shows the Microsoft Azure portal interface for a storage account named 'dhurvstorage'. The left sidebar contains navigation options like Overview, Activity log, Tags, and Storage browser. The main area displays the 'my-images' container under 'Blob containers'. It shows the authentication method as 'Access key' and a search bar. A table lists the contents of the container, showing one item: 'ChatGPT image Jun 15, 2025, 01_08_38 PM.png' with a size of 1.43 MiB and a lease state of 'Available'. An 'Activate Windows' watermark is visible in the bottom right corner.

| Name | Last modified | Access tier | Blob type | Size | Lease state |
|---|-----------------------|----------------|------------|----------|-------------|
| ChatGPT image Jun 15, 2025, 01_08_38 PM.png | 6/15/2025, 2:00:39 PM | Hot (Inferred) | Block blob | 1.43 MiB | Available |

Shared Access Signature:

The screenshot shows the 'Shared access signature' configuration page in the Microsoft Azure portal. The left sidebar has 'Shared access signature' selected. The main area provides information about SAS and allows configuration of permissions. Under 'Allowed services', 'Blob', 'File', 'Queue', and 'Table' are all checked. Under 'Allowed resource types', 'Object' is checked. Under 'Allowed permissions', 'Read', 'Write', 'Delete', 'List', 'Add', 'Create', 'Update', 'Process', 'Immutable storage', and 'Permanent delete' are all checked. Under 'Blob versioning permissions', 'Enables deletion of versions' is checked. Under 'Allowed blob index permissions', 'Read/Write' and 'Filter' are checked. The 'Start and expiry date/time' section shows a start time of 06/15/2025 2:27:54 PM and an expiry time of 10:27:54 PM. An 'Activate Windows' watermark is visible in the bottom right corner.

Allowed services

- ☒ Blob ☒ File ☒ Queue ☒ Table

Allowed resource types

- ☐ Service ☐ Container ☒ Object

Allowed permissions

- ☒ Read ☒ Write ☒ Delete ☒ List ☒ Add ☒ Create ☒ Update ☒ Process ☒ Immutable storage ☒ Permanent delete

Blob versioning permissions

- ☒ Enables deletion of versions

Allowed blob index permissions

- ☒ Read/Write ☒ Filter

Start and expiry date/time

| Start | Expiry |
|-----------------------|-------------|
| 06/15/2025 2:27:54 PM | 10:27:54 PM |

Key Generation using Shared Access Signature:

Microsoft Azure

Search resources, services, and docs (G+I)

Copilot

dhruvbansal0505@gmail...
DEFAULT DIRECTORY (DHURVBA...)

Home > dhurvstorage_1749975803825 | Overview > dhurvstorage

dhurvstorage | Shared access signature

Storage account

secure access x Give feedback

Access Control (IAM)

Security + networking

Access keys

Shared access signature

Allowed protocols ☒ HTTPS only ☐ HTTPS and HTTP

Preferred routing tier ☒ Basic (default) ☐ Microsoft network routing ☐ Internet routing

Some routing options are disabled because the endpoints are not published.

Signing key ☐ key2

Generate SAS and connection string

Connection string

BlobEndpoint=https://dhurvstorage.blob.core.windows.net/QueueEndpoint=https://dhurvstorage.queue.core.windows.net/FileEndpoint=https://dhurvstorage.file.core.windows.net/TableEndpoint=htt...

SAS token

sv=2024-11-04&ss=bt&srt=c&sp=rwdaciytfx&se=2025-06-15T16:57:54Z&st=2025-06-15T08:57:54Z&spr=https&sig=qg9MAMQ5HWmn7en7Wdhj16NU8ZtCbUHuV7E8vkZ4sGU%3D

Blob service SAS URL

https://dhurvstorage.blob.core.windows.net/?sv=2024-11-04&ss=bt&srt=c&sp=rwdaciytfx&se=2025-06-15T16:57:54Z&st=2025-06-15T08:57:54Z&spr=https&sig=qg9MAMQ5HWmn7en7Wdhj16NU...

Table service SAS URL

https://dhurvstorage.table.core.windows.net/?sv=2024-11-04&ss=bt&srt=c&sp=rwdaciytfx&se=2025-06-15T16:57:54Z&st=2025-06-15T08:57:54Z&spr=https&sig=qg9MAMQ5HWmn7en7Wdhj16NU...

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