

This is all I used for load balancer

- 1) Create load balancer
- 2) Create a Virtual network
- 3) Create two VMs
- 4) NAT gateways

The screenshot shows the Microsoft Azure portal interface for creating a load balancer. The main heading is "Create load balancer". Below it, there are tabs for "Basics", "Frontend IP configuration", "Backend pools", "Inbound rules", "Outbound rules", "Tags", and "Review + create". The "Inbound rules" tab is currently selected. On the left, there is a section titled "Load balancing rule" with a description: "A load balancing rule distributes incoming traffic that is sent to a selected IP address and port combination across a group of backend pool instances. The load balancing rule uses a health probe." Below this, there is a table with columns: "Name", "Frontend IP configuration", "Backend pool", and "Health probe". The table is empty, and there is a button "Add a load balancing rule" above it. Below the table, there is a section titled "Inbound NAT rule" with a description: "An inbound NAT rule forwards incoming traffic sent to a selected IP address and port combination to a specific virtual machine." Below this, there is a table with columns: "Name", "Frontend IP configuration", "Service", and "Target". The table is empty, and there is a button "Add an inbound nat rule" above it. On the right side, there is a panel titled "Add load balancing rule" with a close button. It contains the following configuration options: "Backend pool" (set to "publicLB"), "High availability ports" (checkbox), "Protocol" (radio buttons for TCP and UDP, with TCP selected), "Port" (input field set to 80), "Backend port" (input field set to 80), "Health probe" (dropdown menu set to "No existing probes" with a "Create new" link), "Session persistence" (dropdown menu set to "None" with a tooltip explaining session persistence), "Idle timeout (minutes)" (input field set to 4), "Enable TCP Reset" (checkbox), and "Enable Floating IP" (checkbox). At the bottom of the panel are "Save" and "Cancel" buttons. The bottom of the screen shows the Windows taskbar with various application icons and the system clock showing 8:47 PM on 7/16/2025.

The screenshot shows the Microsoft Azure portal interface for the "Review + create" step of creating a load balancer. The main heading is "Create load balancer". Below it, there are tabs for "Basics", "Frontend IP configuration", "Backend pools", "Inbound rules", "Outbound rules", "Tags", and "Review + create". The "Review + create" tab is currently selected. At the top, there is a green banner that says "Validation passed". Below this, there is a table with the following configuration details: "Basics" (Subscription: Simlilearn HOL 100534, Resource group: RG01, Name: publicLB, Region: East US, SKU: Standard, Tier: Regional, Type: Internal), "Frontend IP configuration" (Frontend IP configuration name: LBFrontEndIP, Frontend IP configuration IP address: Dynamic), "Backend pools" (Backend pool name: BackendPool), and "Inbound rules". At the bottom, there are "Create", "Previous", and "Next" buttons, along with a link to "Download a template for automation" and a "Give feedback" link. The bottom of the screen shows the Windows taskbar with various application icons and the system clock showing 8:49 PM on 7/16/2025.

Virtual network

The image shows two screenshots of the Microsoft Azure portal. The top screenshot displays the 'Overview' page for a deployment named 'VM121-1752678454804'. The deployment is complete, with a start time of 7/16/2025, 8:37:43 PM. The deployment details show the subscription as 'SimpleLearn HOL 100534' and the resource group as 'RG01'. The bottom screenshot shows the 'Overview' page for a NAT gateway named 'natgateway'. The gateway is associated with the same subscription and resource group. The configuration details show the virtual network as 'VNet01', the location as 'East US', and the public IP addresses as 1. The gateway is used to configure outbound IP addresses and subnets for a virtual network.

VM121-1752678454804 | Overview

Your deployment is complete

Deployment name : VM121-1752678454804
Subscription : SimpleLearn HOL 100534
Resource group : RG01

Start time : 7/16/2025, 8:37:43 PM
Correlation ID : 5aa2842c-1664-4a6d-aac6-13b454ebd2d9

Deployment details

Next steps

Go to resource

Give feedback

Tell us about your experience with deployment

Cost management
Get notified to stay within your budget and prevent unexpected charges on your bill.
[Set up cost alerts >](#)

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 >](#)

natgateway
NAT gateway

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Resource visualizer

Settings

Monitoring

Automation

Help

Essentials

Resource group (move) : RG01
Location : East US
Subscription (move) : SimpleLearn HOL 100534
Subscription ID : 0320a5fb-b8a8-4d30-8504-ed026a2e2e44
Tags (edit) : Add tags

Virtual network : VNet01
Subnets : 1
Public IP addresses : 1
Public IP prefixes : 0

Configure outbound IP addresses
Configure which public IP addresses and public IP prefixes to use for outbound connectivity.

Configure subnets
Configure which subnets of a virtual network should use this NAT gateway.

[JSON View](#)

[Give feedback](#)

Microsoft Azure portal interface showing the "Create network security group" page. The page title is "Create network security group". The "Name" field is filled with "Virtual8-nsg". Under "Inbound rules", there is a list of default rules: "1000: default-allow-rdp", "Any", and "RDP (TCP/3389)". A checkmark is visible next to the "Any" rule. There is a link to "Add an inbound rule". Under "Outbound rules", it says "No results." and a link to "Add an outbound rule".

OK

Microsoft Azure portal interface showing the "Add inbound security rule" dialog box. The dialog is titled "Add inbound security rule" and is for the "Virtual8-nsg". The "Protocol" is set to "HTTP". The "Destination port ranges" is set to "80". The "Action" is set to "Allow". The "Priority" is set to "100". The "Name" is set to "AllowAnyHTTPI inbound". There is a "Description" field. At the bottom, there are "Add" and "Cancel" buttons, and a "Give feedback" link.

Add inbound security rule

Virtual8-nsg

HTTP

Destination port ranges

80

Protocol

☐ Any

☒ TCP

☐ UDP

☐ ICMPv4

☐ ICMPv6

Action

☒ Allow

☐ Deny

Priority

100

Name

AllowAnyHTTPI inbound

Description

Add Cancel Give feedback

portal.azure.com/#create/Microsoft.VirtualMachine-ARM

Microsoft Azure

Home > Compute infrastructure > Virtual machines >

Create a virtual machine

Help me create a low cost VM

Help me create a VM optimized for high availability

Help me choose the right VM size for my workload

Create new

Please update ports on the network security group to allow traffic from the Azure load balancer.

Delete public IP and NIC when VM is deleted

Enable accelerated networking

Load balancing

You can place this virtual machine in the backend pool of an existing Azure load balancing solution. [Learn more](#)

Load balancing options

None

Azure load balancer

Application gateway

Select a load balancer

publicLB

Create a load balancer

Select a backend pool

BackendPool

Create new

< Previous

Next > Management

Review + create

Give feedback

Type here to search

28°C Haze

8:59 PM

7/16/2025

portal.azure.com/#create/Microsoft.VirtualMachine-ARM

Microsoft Azure

Home > Compute infrastructure > Virtual machines >

Create a virtual machine

Validation passed

Help me create a low cost VM

Help me create a VM optimized for high availability

Help me choose the right VM size for my workload

Basics

Disks

Networking

Management

Monitoring

Advanced

Tags

Review + create

Unable to retrieve prices and legal terms

TERMS

By clicking "Create", I (a) agree to the legal terms and privacy statement(s) associated with the Marketplace offering(s) listed above; (b) authorize Microsoft to bill my current payment method for the fees associated with the offering(s), if any, with the same billing frequency as my Azure subscription; and (c) agree that Microsoft may share my contact, usage and transactional information with the provider(s) of the offering(s) for support, billing and other transactional activities. Microsoft does not provide rights for third-party offerings. See [Azure Marketplace Terms](#) for additional details.

Basics

Subscription

Resource group

Virtual machine name

Region

Availability options

Zone options

Simplilearn HOL 100534

RG01

VirtualLB

East US

Availability zone

Self-selected zone

< Previous

Next >

Create

Download a template for automation

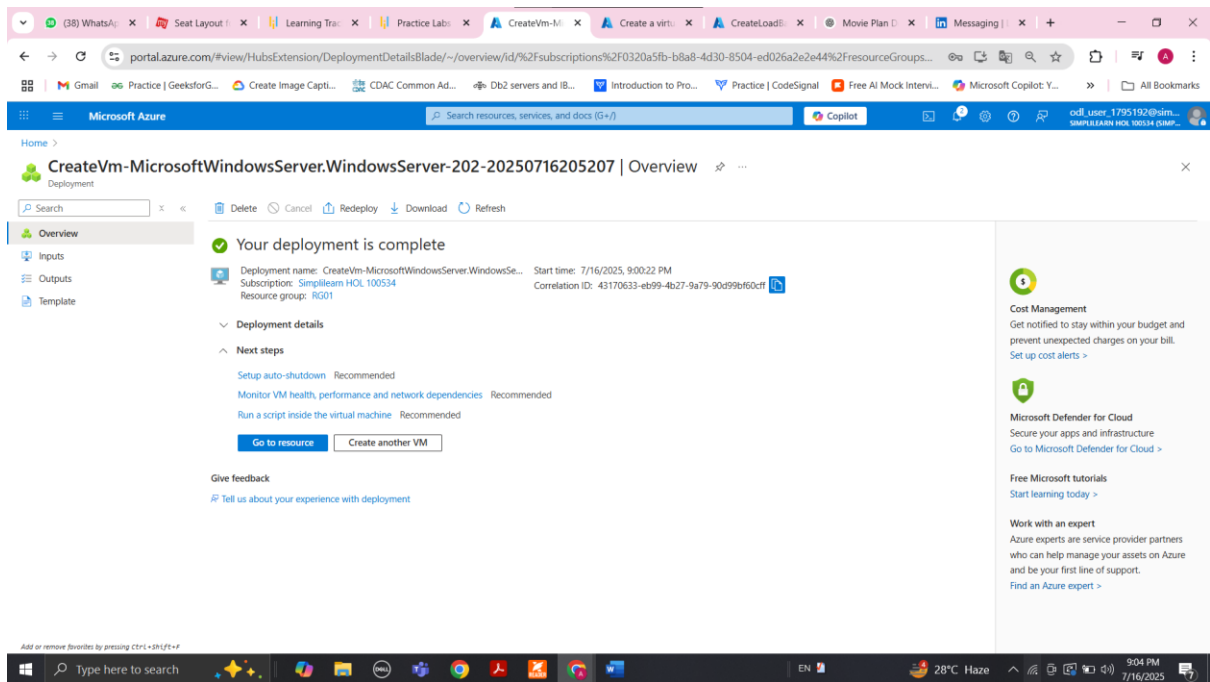
Give feedback

Type here to search

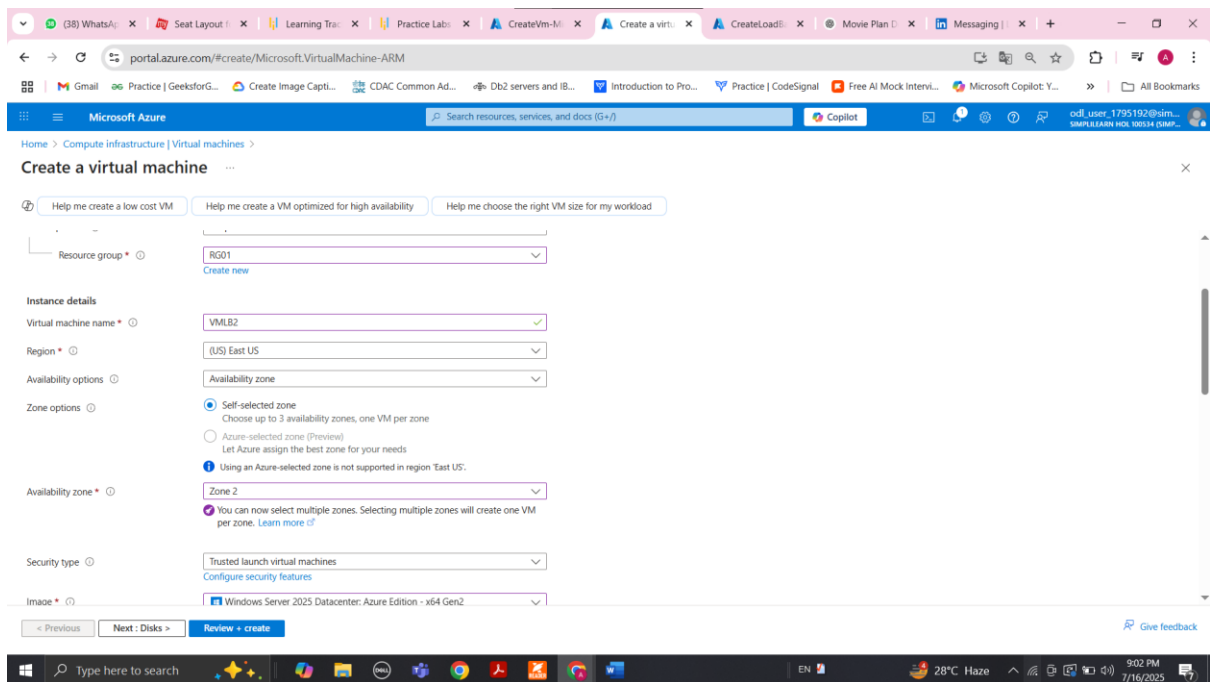
28°C Haze

8:59 PM

7/16/2025



Create another VM



Connect VMfirst with Bastion

VirtualLB | Bastion

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Resource visualizer

Connect

Connect

Bastion

Windows Admin Center

Networking

Network settings

Load balancing

Application security groups

Network manager

Settings

Availability + scale

Security

Create Bastion

Name: Vir01-bastion

Resource group: RG01

Virtual network: Vir01

Public IP address: Vir01-ip

SKU: Standard

Deploy Bastion

Configure manually

Bastion pricing starts with an hourly base rate. [Learn more](#)

CreateLoadBalancerBladeV2-20250717115750 | Overview

Overview

Inputs

Outputs

Template

Your deployment is complete

Deployment name: CreateLoadBalancerBladeV2-20250717115750

Subscription: Simplilearn HOL 100462

Resource group: RG01

Start time: 7/17/2025, 12:01:30 PM

Correlation ID: 3370f460-477e-44d1-8060-0490ef51a12

Deployment details

Next steps

Go to resource

Give feedback

Tell us about your experience with deployment

Cost management

Get notified to stay within your budget and prevent unexpected charges on your bill. [Set up cost alerts](#)

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](#)

portal.azure.com/#create/Microsoft.VirtualMachine-ARM

Microsoft Azure

Home > Compute infrastructure > Virtual machines >

Create a virtual machine

Validation passed

Help me create a low cost VM | Help me create a VM optimized for high availability | Help me choose the right VM size for my workload

| | |
|---------------------------------|--|
| Subscription | Simplilearn HOL 100462 |
| Resource group | RG01 |
| Virtual machine name | VM1 |
| Region | East US |
| Availability options | Availability zone |
| Zone options | Self-selected zone |
| Availability zone | 1 |
| Security type | Trusted launch virtual machines |
| Enable secure boot | Yes |
| Enable vTPM | Yes |
| Integrity monitoring | No |
| Image | Windows Server 2025 Datacenter: Azure Edition - Gen2 |
| VM architecture | x64 |
| Size | Standard D2s v3 (2 vcpus, 8 GiB memory) |
| Enable Hibernation | No |
| Username | admin111 |
| Already have a Windows license? | No |
| Azure Spot | No |

Disks

< Previous | Next > | Create

Download a template for automation | Give feedback

portal.azure.com/#view/HubsExtension/DeploymentDetailsBlade/~/overview/id/%2Fsubscriptions%2Ffdef67e6-027e-4307-9f6f-32885e2b2857%2FresourceGroups%2Frg01/deployments/1

Microsoft Azure

Home >

CreateVm-MicrosoftWindowsServer.WindowsServer-202-20250717120340 | Overview

Deployment

Search | Delete | Cancel | Redeploy | Download | Refresh

Overview

Inputs

Outputs

Template

Your deployment is complete

Deployment name: CreateVm-MicrosoftWindowsServer.WindowsSe... Start time: 7/17/2025, 12:11:06 PM
Subscription: Simplilearn HOL 100462 Correlation ID: 335d5089-e09e-403b-9557-85393f6ca487
Resource group: RG01

Deployment details

Next steps

- Setup auto-shutdown Recommended
- Monitor VM health, performance and network dependencies Recommended
- Run a script inside the virtual machine Recommended

Go to resource | Create another VM

Give feedback

Tell us about your experience with deployment

Cost Management
Get notified to stay within your budget and prevent unexpected charges on your bill.
Set up cost alerts >

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

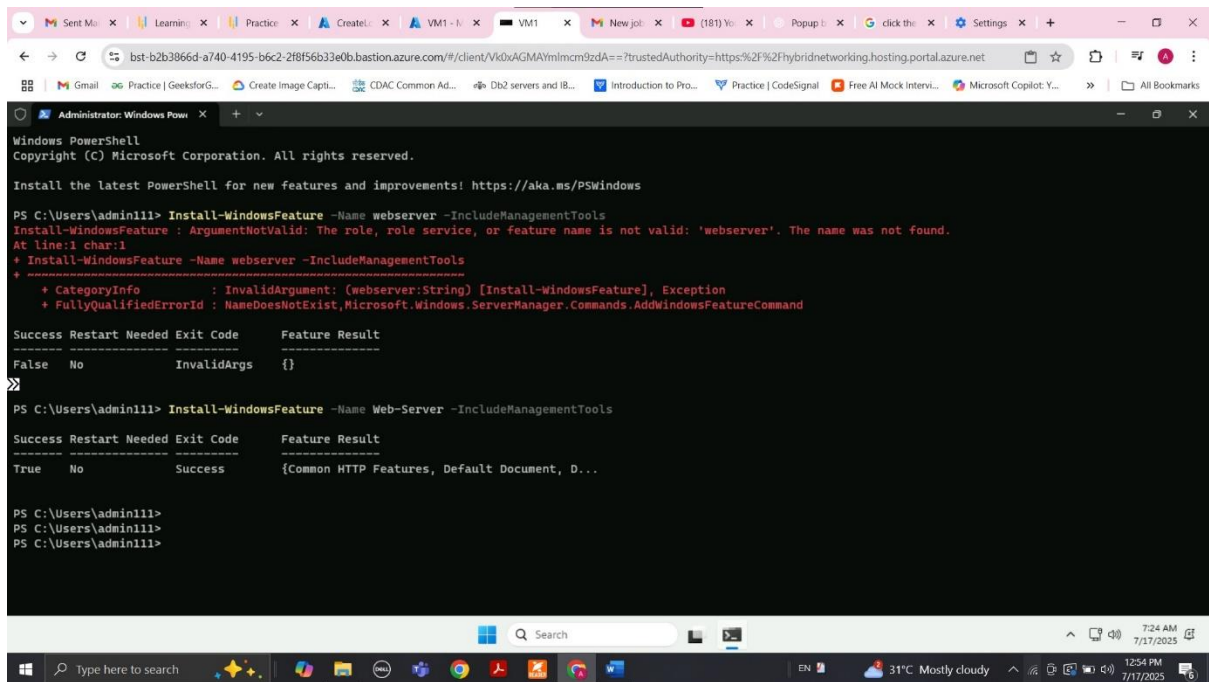
Free Microsoft tutorials
Start learning today >

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 >

Connect with Bastion

The screenshot shows the Microsoft Azure portal interface. The top navigation bar includes the Microsoft Azure logo and a search bar. The left sidebar contains a navigation menu with options like Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Resource visualizer, Connect, Bastion, Windows Admin Center, Networking, Network settings, Load balancing, Application security groups, Network manager, Settings, Availability + scale, and Security. The main content area displays the 'VM1 | Bastion' page. It shows the provisioning state as 'Succeeded' and prompts the user to enter a username and password to connect. The connection settings include a dropdown for 'Keyboard Language' set to 'English (US)', a dropdown for 'Authentication Type' set to 'VM Password', a text input for 'Username' with the value 'admin1', and a password input for 'VM Password' with masked characters. A 'Show' button is next to the password field. There is a checkbox for 'Open in new browser tab' which is checked. A 'Connect' button is at the bottom of the form. The bottom of the screenshot shows a Windows taskbar with various application icons and a system tray displaying the date and time as 12:24 PM on 7/17/2025.

The screenshot shows a remote desktop session. The top of the window displays the URL: `bst-b2b3866d-a740-4195-b6c2-2f8f56b33e0b.bastion.azure.com/#/client/Vk0xAGMA/mimcm9zdA==?trustedAuthority=https%2F%2Fhybridnetworking.hosting.portal.azure.net`. The desktop environment is a Windows operating system. It features a 'Recycle Bin' icon and a 'Microsoft Edge' icon on the taskbar. The taskbar also includes a search bar and several application icons. The system tray at the bottom right shows the date and time as 7:14 AM on 7/17/2025. The background of the desktop is dark with a few small icons.



```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\admin111> Install-WindowsFeature -Name webservice -IncludeManagementTools
Install-WindowsFeature : ArgumentNotValid: The role, role service, or feature name is not valid: 'webservice'. The name was not found.
At line:1 char:1
+ Install-WindowsFeature -Name webservice -IncludeManagementTools
+ ~~~~~
+ CategoryInfo          : InvalidArgument: (webserver:String) [Install-WindowsFeature], Exception
+ FullyQualifiedErrorId : NameDoesNotExist,Microsoft.Windows.ServerManager.Commands.AddWindowsFeatureCommand

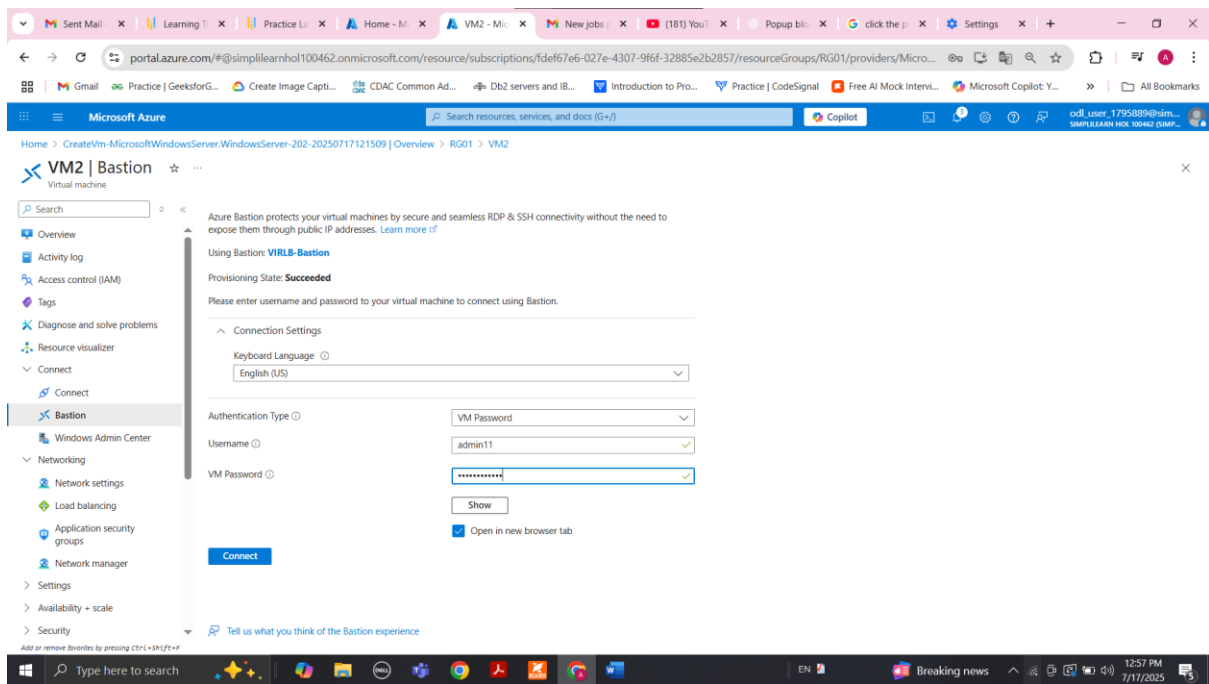
Success Restart Needed Exit Code      Feature Result
-----
False    No                InvalidArgs      {}

PS C:\Users\admin111> Install-WindowsFeature -Name Web-Server -IncludeManagementTools

Success Restart Needed Exit Code      Feature Result
-----
True     No                Success          {Common HTTP Features, Default Document, D...

PS C:\Users\admin111>
PS C:\Users\admin111>
PS C:\Users\admin111>
```

Connect VM2



VM2 | Bastion

Virtual machine

Search

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Resource visualizer

Connect

Connect

Bastion

Windows Admin Center

Networking

Network settings

Load balancing

Application security groups

Network manager

Settings

Availability + scale

Security

Azure Bastion protects your virtual machines by secure and seamless RDP & SSH connectivity without the need to expose them through public IP addresses. [Learn more](#)

Using Bastion: [VIRLB-Bastion](#)

Provisioning State: **Succeeded**

Please enter username and password to your virtual machine to connect using Bastion.

Connection Settings

Keyboard Language

Authentication Type

Username

VM Password

Show

☒ Open in new browser tab

Connect

Tell us what you think of the Bastion experience

Check the load balancer resources

portal.azure.com/#@simpilllearnhol100462.onmicrosoft.com/resource/subscriptions/fdef67e6-027e-4307-9f6f-32885e2b2857/resourceGroups/RG01/providers/Microsoft.N...

Microsoft Azure

Home > Resource groups > RG01 >

publicLB Load balancer

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

Copilot

odl_user_1795889@sim... SIMPLILEARN HOL 100462 (SIMP...)

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Resource visualizer

Settings

Frontend IP configuration

Backend pools

Health probes

Load balancing rules

Inbound NAT rules

Properties

Locks

Monitoring

Automation

Help

Essentials

Resource group (move) : RG01

Location : East US

Subscription (move) : Simplilearn HOL 100462

Subscription ID : fdef67e6-027e-4307-9f6f-32885e2b2857

SKU : Standard

Tags (edit) : Add tags

See more

Backend pool : BackendLB (2 virtual machines)

Load balancing rule : httprule (Tcp/80)

Health probe : LBhealth (Tcp/80)

Inbound NAT rules : None

Tier : Regional

JSON View

Configure high availability and scalability for your applications

Create highly-available and scalable applications in minutes by using built-in load balancing for cloud services and virtual machines. Azure Load Balancer supports TCP/UDP-based protocols and protocols used for real-time voice and video messaging applications. [Learn more](#)

Balance IPv4 and IPv6 addresses

Native dual-stack endpoints help meet regulatory requirements and address the fast-growing number of devices in mobile and IoT. [Learn more](#)

View frontend IP configuration

Build highly reliable applications

Load Balancer improves application uptime by routing traffic to healthy nodes. [Learn more](#)

View health probes

Secure your networks

Control network traffic and protect private networks using built-in network address translation (NAT). [Learn more](#)

View inbound NAT rules

https://portal.azure.com/#@simpilllearnhol100462.onmicrosoft.com/resource/subscriptions/fdef67e6-027e-4307-9f6f-32885e2b2857/resourceGroups/RG01/providers/Microsoft.Network/loadBalancers/publicLB/frontendipPool

Copy IP address

portal.azure.com/#@simpilllearnhol100462.onmicrosoft.com/resource/subscriptions/fdef67e6-027e-4307-9f6f-32885e2b2857/resourceGroups/RG01/providers/Microsoft.N...

Microsoft Azure

Home > Resource groups > RG01 > publicLB

publicLB | Frontend IP configuration

Load balancer

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

Copilot

odl_user_1795889@sim... SIMPLILEARN HOL 100462 (SIMP...)

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Resource visualizer

Settings

Frontend IP configuration

Backend pools

Health probes

Load balancing rules

Inbound NAT rules

Properties

Locks

Monitoring

Automation

Help

The frontend IP address configuration of a load balancer serves as the entry point for incoming traffic to the load balancer, and the load balancer then distributes the traffic to the backend pool of virtual machines or services. [Learn more](#)

Type to start filtering ...

Showing all 1 items

| Name | IP address | Rules count |
|------------------|------------|-------------|
| publicfrontendip | 10.0.0.41 | 1 |

Give feedback

Add or remove favorites by pressing Ctrl+Shift+F