

School: CLOUDBOOSTA	Course: Cloud Computing & DevOps
Name: AKOSA SAMUEL ONYEJEKWE	Module: Azure App Service
	Class 5: Assignment 1 of 3_ Secure HR portal infrastructure setup
Student No: CBALC0168	Issue Date: March 22, 2026

A secure HR portal is built using a VM inside a VNet, protected by NSG network rules and controlled through Entra ID authentication and RBAC authorisation.

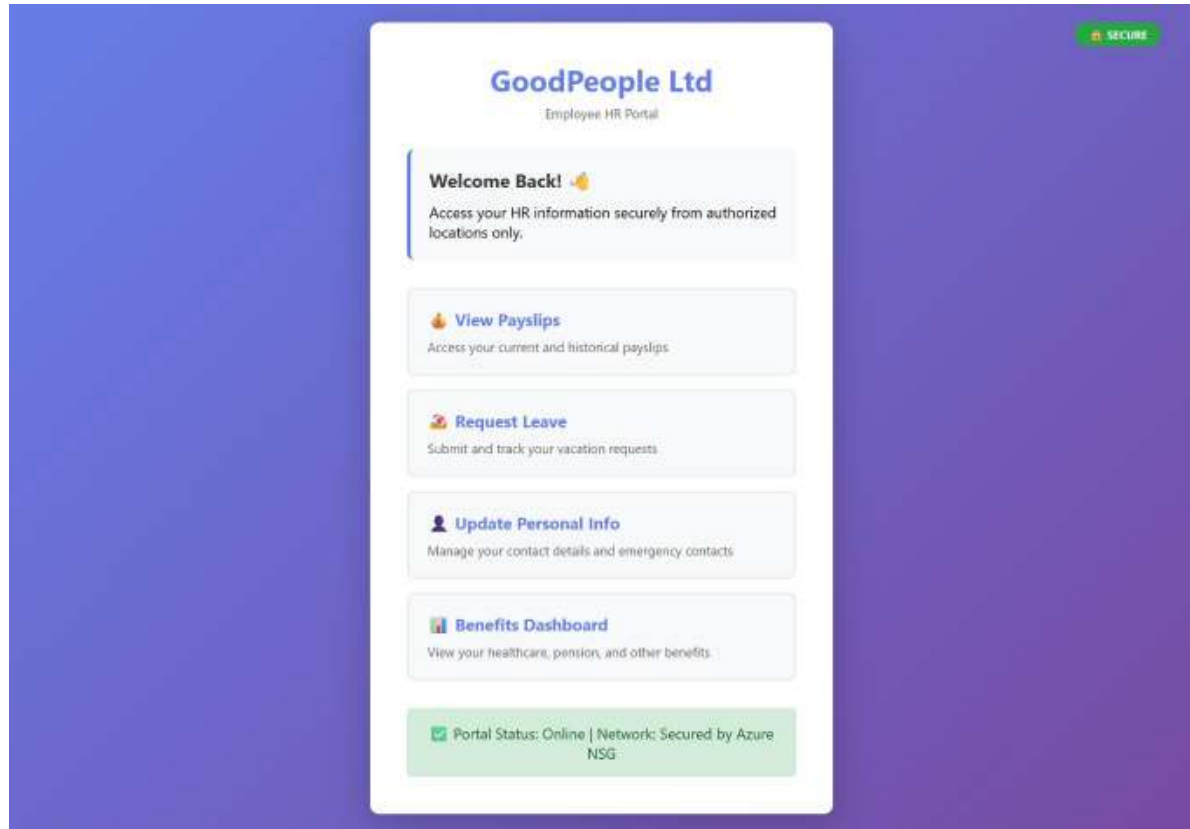
Tasks:

1. Create a VNet and subnet for the HR portal.
2. Deploy a VM and install a working HR web application.
3. Apply NSG rules to restrict access to the portal.
4. Create an Entra ID user and assign RBAC roles.

Goal:

To build a secure, working HR portal that demonstrates both network security (NSG) and identity management (Entra ID + RBAC).

Result:



In this demo, a secure HR web application architecture was implemented on Azure using:

- VNet + Subnet → network isolation
- VM (Ubuntu) → compute layer
- NSG → network security enforcement
- Entra ID + RBAC → identity & access control

Provisioned:

- VNet: 10.20.0.0/16
- Subnet: 10.20.1.0/24
- NSG: vm-hr-portal-nsg
- Ports allowed:
 - 22 (SSH)
 - 80 (HTTP)
 - 443 (HTTPS)
- VM: vm-hr-portal

Identity Layer (Entra ID + RBAC)

Created:

- Entra ID user
- Assigned RBAC roles

Instead of sharing passwords, identity + role assignment was used.

This enforces:

- Least privilege
- Auditable access
- Centralised control

End-to-End Flow

Here's what happens in our system:

User → Internet → NSG → VM → HR Web App

And for admin access:

Admin → Entra ID → RBAC → Access VM/Resources

What makes this “secure HR portal”

From our final UI (GoodPeople Ltd HR portal):

- Only accessible via allowed ports
- Runs inside controlled network
- Access governed by identity
- Protected by NSG

This architecture demonstrates:

1. Network Security

- VNet isolation
- Subnet segmentation

- NSG firewall rules

2. Identity Security

- Entra ID authentication
- RBAC authorisation

3. Compute Hosting

- VM running application

Screenshots follow.

Microsoft Azure

Search resources, services, and docs (G+)

Copilot

🔔🔧🔍🗨️

👤 samuelonyejekwe852@...
DEFAULT DIRECTORY (SAMUELO...

Home > Network foundation

Network foundation | Virtual networks

Preview

🔍 Search

🛠️ Create ⚙️ Manage view ↕️ 🔄 Refresh ⬇️ Export to CSV 🔗 Open query | 🏷️ Assign tags

Filter for any field...

Subscription equals all

Resource group equals all

Location equals all

+ Add filter

Showing 0 to 0 of 0 records.

No grouping

List view

Name ↕️	Resource group ↕️	Location ↕️	Subscription ↕️
No virtual networks to display Create a virtual network to securely connect your Azure resources to each other. Connect your virtual network to your on-premises network using an Azure VPN Gateway or ExpressRoute. + Create virtual network Learn more			

Overview

Virtual network

- Virtual Network overview
- Virtual networks
- NAT gateways
- Public IP addresses
- Network interfaces
- Network security groups
- Application security groups
- Bastions

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Create virtual network

- Basics
- Security
- IP addresses
- Tags
- Review + create

Azure Virtual Network (VNet) is the fundamental building block for your private network in Azure. VNet enables many types of Azure resources, such as Azure Virtual Machines (VM), to securely communicate with each other, the internet, and on-premises networks. VNet is similar to a traditional network that you'd operate in your own data center, but brings with it additional benefits of Azure's infrastructure such as scale, availability, and isolation.

[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 *

rg-azure-labs

Create new

Instance details

Virtual network name *

vnet-goodpeople-hr

Region * ⓘ

(Europe) West Europe

Deploy to an Azure Extended Zone

Create virtual network

Basics Security IP addresses Tags Review + create

Configure your virtual network address space with the IPv4 and IPv6 addresses and subnets you need. [Learn more](#) of

Define the address space of your virtual network with one or more IPv4 or IPv6 address ranges. Create subnets to segment the virtual network address space into smaller ranges for use by your applications. When you deploy resources into a subnet, Azure assigns the resource an IP address from the subnet. [Learn more](#)

☐ Allocate using IP address pools. [Learn more](#)

[+ Add a subnet](#)

10.20.0.0/16

Delete address space

10.20.0.0

/16

10.20.0.0 - 10.20.255.255

65,536 addresses

Subnets	IP address range	Size	NAT gateway
subnet: hr-app	10.20.1.0 - 10.20.1.255	/24 (256 addresses)	

Add IPv4 address space |

Create virtual network ...

Validation passed

Basics Security IP addresses Tags **Review + create**

[View automation template](#)

Basics

Subscription	Azure subscription 1
Resource Group	rg-azure-labs
Name	vnet-goodpeople-hr
Region	West Europe

[Previous](#)

Next

Create

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[illegible]

- **Template**

Resource group rg-azure-labs

Next steps

[Go to resource](#)

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samuelonyejekwe852@...
DEFAULT DIRECTORY (SAMUELO...

Home > Compute infrastructure

Compute infrastructure | Virtual machines

Get workload templates for VMsView virtual machines with critical alerts+1

Search

Virtual machinesGet started

+ Create ⌵⌚ Reservations ⌵⚙️ Manage view ⌵🔄 Refresh ⬇️ Export to CSV 🔗 Open query | 🔗 Assign tags ⋮📊 Group by none ⌵

📘 You are viewing a new version of Browse experience. Click here to access the old experience.

🔍 Filter for any field...

Subscription equals all

Type equals all

Resource Group equals all ⌵

Location equals all ⌵

+ Add filter



No virtual machines to display

Create a virtual machine that runs Linux or Windows. Select an image from the marketplace or use your own customized image.

+ Create ⌵

Showing 1 - 0 of 0. Display count: auto ⌵

Give feedback

Overview

All resources

Infrastructure

Virtual machines

Virtual Machine Scale Set (VMSS)

Compute Fleet

Arc Machines

> Disks + images

> Capacity + placement

> Related services

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



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 * ⓘ

rg-azure-labs

Create new

Instance details

Virtual machine name * ⓘ

vm-hr-portal

Region * ⓘ

(Europe) West Europe

Deploy to an Azure Extended Zone

Availability options ⓘ

Availability zone

Zone options ⓘ

☒ Self-selected zone

Choose up to 3 availability zones, one VM per zone

☐ Azure-selected zone (Preview)

Let Azure assign the best zone for your needs

Availability zone * ⓘ

Zone 3

☒ You can now select multiple zones. Selecting multiple zones will create one VM per zone. [Learn more](#)

Security type ⓘ

Trusted launch virtual machines

Configure security features

Image * ⓘ

 Ubuntu Server 24.04 LTS - x64 Gen2

[See all images](#) | [Configure VM generation](#)

VM architecture ⓘ

☐ Arm64

☒ x64

Run with Azure Spot discount ⓘ

☐

Size * ⓘ

Standard_D2s_v3 - 2 vcpus, 8 GiB memory (\$87.60)

[See all sizes](#)

Enable Hibernation ⓘ

☐

 Hibernation does not currently support Trusted launch and Confidential virtual machines for Linux images. [Learn more](#)

Administrator account

Authentication type ⓘ

☐ SSH public key

☒ Password

Username * ⓘ

azure_user

Password *

Confirm password *

Inbound port rules

Select which virtual machine network ports are accessible from the public internet. You can specify more limited or granular network access on the Networking tab.

Public inbound ports * ⓘ

☐ None

☒ Allow selected ports

Select inbound ports *

HTTP (80), HTTPS (443), SSH (22)

 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.

Estimated monthly costs ⓘ

Costs indicated here are estimates only. Pricing may vary depending on your Microsoft agreement, date of purchase, subscription type, usage costs, licensing and currency exchange rates. Total costs may include other resource costs, licensing and subscription implications. This feature may have limited or restricted functionality, but is made available on a preview basis for evaluation and feedback.

 Give feedback about your estimate experience

Basics \$87.60

Estimated monthly cost \$87.60

< Previous

Next : Disks >

Review + create

 Give feedback

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

X

- 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](#)

There is a charge for the underlying storage resources consumed by your virtual machine. [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](#)

OS disk

OS disk size

Image default (30 GiB)

OS disk type *

Standard SSD (locally-redundant storage)

The selected VM size supports premium disks. We recommend Premium SSD for high IOPS workloads. Virtual machines with Premium SSD disks qualify for the 99.9% connectivity SLA.

Delete with VM

☒

Key management

Platform-managed key

Enable Ultra Disk compatibility

☐

Data disks for vm-hr-portal

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](#)

Estimated monthly costs

Costs indicated here are estimates only. Pricing may vary depending on your Microsoft agreement, date of purchase, subscription type, usage costs, licensing and currency exchange rates. Total costs may include other resource costs, licensing and subscription implications. This feature may have limited or restricted functionality, but is made available on a preview basis for evaluation and feedback.

Give feedback about your estimate experience

Basics \$87.60

Estimated monthly cost \$87.60

Advanced

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

Give feedback

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

X

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 * ⓘ vnet goodpeople hr Create new

Subnet * ⓘ subnet-hr-app (10.20.1.0/24) Manage subnet configuration

Public IP ⓘ {new} vm-hr-portal-ip Create new

Public IP addresses have a nominal charge. [Estimate price](#)

NIC network security group ⓘ

☐ None

☒ Basic

☐ Advanced

Public inbound ports * ⓘ

☐ None

☒ Allow selected ports

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

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.

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
Supports all TCP/UDP network traffic, port-forwarding, and outbound flows.
- ☐ Application gateway
Web traffic load balancer for HTTP/HTTPS with URL-based routing, SSL termination, session persistence, and web application firewall.

[← Previous](#)

Next : Management >

Review + create

 Give feedback

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

Validation passed

Basics Disks Networking Management Monitoring Advanced Tags Review + create

Price

1 X Standard D2s v3

by Microsoft

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Subscription credits apply ⓘ

0,1200 USD/hr

Pricing for other VM sizes

TERMS

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

Name: Samuel Onysekwe

Preferred e-mail address	samuelonyejekwe852@gmail.com
--------------------------	------------------------------

Preferred phone number	+35795713273
------------------------	--------------

You have set SSH port(s) open to the internet. This is only recommended for testing. If you want to change this setting, go back to Basics tab.

Basics

Subscription	Azure subscription 1
Resource group	rg-azure-labs
Virtual machine name	vm-hr-portal
Region	West Europe
Availability options	Availability zone
Zone options	Self selected zone
Availability zone	3
Security type	Trusted launch virtual machines
Enable secure boot	Yes
Enable vTPM	Yes
Integrity monitoring	No
Image	Ubuntu Server 24.04 LTS - Gen2
VM architecture	x64
Size	Standard D2s v3 (2 vcpus, 8 GiB memory)
Enable Hibernation	No
Authentication type	Password
Username	azure_user
Public inbound ports	SSH, HTTP, HTTPS
Azure Spot	No

Disks

OS disk size	Image default
OS disk type	Standard SSD LRS
Use managed disks	Yes
Delete OS disk with VM	Enabled
Ephemeral OS disk	No

Networking

Virtual network	vnet_goodpeople_hr
Subnet	subnet-hr-app (10.20.1.0/24)
Public IP	(new) vm-hr-portal-ip
Accelerated networking	On
Place this virtual machine behind an existing load balancing?	No
Delete public IP and NIC when VM is	Disabled

Estimated monthly costs

Costs indicated here are estimates only. Pricing may vary depending on your Microsoft agreement, date of purchase, subscription type, usage costs, licensing and currency exchange rates. Total costs may include other resource costs, licensing and subscription implications. This feature may have limited or restricted functionality, but is made available on a preview basis for evaluation and feedback.

80 Give feedback about your estimate experience

Estimated monthly cost

\$91.25

detected

Management

Microsoft Defender for Cloud	None
System assigned managed identity	Off
Login with Microsoft Entra ID	Off
Auto shutdown	Off
Enable periodic assessment	Off
Enable hotpatch	Off
Patch orchestration options	Image Default

Monitoring

Alerts	Off
Boot diagnostics	On
Enable OS guest diagnostics	Off
Enable application health monitoring	Off

Advanced

Extensions	None
VM applications	None
Cloud init	No
User data	No
Disk controller type	SCSI
Proximity placement group	None
Capacity reservation group	None

< Previous

Next >

Create

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CreateVm-canonical.ubuntu-24 04-lts-server-20260321130633 | Overview

4

✕

Deployment

Search

Delete Cancel Redeploy Download Refresh

 Overview

 Inputs

Outputs

 **Template**

✔ Your deployment is complete

Deployment name: CreateVm canonical.ubuntu 24_04 ... Start time: 3/21/2026, 1:20:25 PM
Subscription: Azure subscription 1 Correlation ID: 946d6bd7-4668-496e-b54c-2
Resource group: rg-azure-labs

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](#)

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azure_user@vm-hr-portal: ~

```
PS C:\Users\user> ssh azure_user@20.82.112.71
The authenticity of host '20.82.112.71 (20.82.112.71)' can't be established.
ED25519 key fingerprint is SHA256:hD9hwxc6pMdGo8C7oLLA3dab+YlvmAnWvePiHkM0cPE.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '20.82.112.71' (ED25519) to the list of known hosts.
azure_user@20.82.112.71's password:
Welcome to Ubuntu 24.04.4 LTS (GNU/Linux 6.17.0-1008-azure x86_64)
```

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

System information as of Sat Mar 21 11:26:57 UTC 2026

System load:	0.0	Processes:	135
Usage of /:	5.7% of 28.02GB	Users logged in:	0
Memory usage:	4%	IPv4 address for eth0:	10.20.1.4
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`

azure_user@vm-hr-portal: ~

System information as of Sat Mar 21 11:26:57 UTC 2026

System load:	0.0	Processes:	135
Usage of /:	5.7% of 28.02GB	Users logged in:	0
Memory usage:	4%	IPv4 address for eth0:	10.20.1.4
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.

azure_user@vm-hr-portal:~\$ |

```
Get:42 http://azure.archive.ubuntu.com/ubuntu noble-security/main amd64 Packages [1544 kB]
Get:43 http://azure.archive.ubuntu.com/ubuntu noble-security/main Translation-en [248 kB]
Get:44 http://azure.archive.ubuntu.com/ubuntu noble-security/main amd64 Components [21.5 kB]
Get:45 http://azure.archive.ubuntu.com/ubuntu noble-security/main amd64 c-n-f Metadata [10.7 kB]
Get:46 http://azure.archive.ubuntu.com/ubuntu noble-security/universe amd64 Packages [977 kB]
Get:47 http://azure.archive.ubuntu.com/ubuntu noble-security/universe Translation-en [219 kB]
Get:48 http://azure.archive.ubuntu.com/ubuntu noble-security/universe amd64 Components [74.1 kB]
Get:49 http://azure.archive.ubuntu.com/ubuntu noble-security/universe amd64 c-n-f Metadata [20.8 kB]
Get:50 http://azure.archive.ubuntu.com/ubuntu noble-security/restricted amd64 Packages [2689 kB]
Get:51 http://azure.archive.ubuntu.com/ubuntu noble-security/restricted Translation-en [625 kB]
Get:52 http://azure.archive.ubuntu.com/ubuntu noble-security/restricted amd64 Components [212 B]
Get:53 http://azure.archive.ubuntu.com/ubuntu noble-security/multiverse amd64 Packages [28.8 kB]
Get:54 http://azure.archive.ubuntu.com/ubuntu noble-security/multiverse Translation-en [6732 B]
Get:55 http://azure.archive.ubuntu.com/ubuntu noble-security/multiverse amd64 Components [212 B]
Get:56 http://azure.archive.ubuntu.com/ubuntu noble-security/multiverse amd64 c-n-f Metadata [396 B]
Fetched 40.8 MB in 8s (5267 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
28 packages can be upgraded. Run 'apt list --upgradable' to see them.
azure_user@vm-hr-portal:~$ sudo apt install python3 -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
python3 is already the newest version (3.12.3-0ubuntu2.1).
python3 set to manually installed.
0 upgraded, 0 newly installed, 0 to remove and 28 not upgraded.
azure_user@vm-hr-portal:~$ mkdir ~/hr-portal && cd ~/hr-portal
azure_user@vm-hr-portal:~/hr-portal$ nano index.html
azure_user@vm-hr-portal:~/hr-portal$ |
```

GoodPeople Ltd

Employee HR Portal

Welcome Back! 🖐️

Access your HR information securely from authorized locations only.

💰 **View Payslips**

Access your current and historical payslips

🏖️ **Request Leave**

Submit and track your vacation requests

GoodPeople Ltd

Employee HR Portal

Welcome Back! 🤖

Access your HR information securely from authorized locations only.

🔥 View Payslips

Access your current and historical payslips

🗓 Request Leave

Submit and track your vacation requests

👤 Update Personal Info

Manage your contact details and emergency contacts

📊 Benefits Dashboard

View your healthcare, pension, and other benefits

✅ Portal Status: Online | Network: Secured by Azure
NSG

Microsoft Azure

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

Copilot

2

Home > Network foundation

Network foundation | Network security groups

Preview

Check security rule conflicts across network security groups +2

Search

Create

Manage view

Refresh

Export to CSV

Open query

Assign tags

Filter for any field...

Subscription equals all

Resource group equals all

Location equals all

Add filter

Showing 1 to 1 of 1 records.

No grouping

List view

☐	Name ↑↓	Resource group ↑↓	Location ↑↓	Subscription ↑↓	Flow log ↑↓
☐	vm-hr-portal-nsg	rg-azure-labs	West Europe	Azure subscription 1	

< Previous

Page 1 of 1

Next >

Give feedback

Create network security group

Basics

Tags

Review + create

Project details

Subscription *

Azure subscription 1

Resource group *

rg-azure-labs

Create new

Instance details

Name *

nsg-hr-portal

Region *

West Europe

Create network security group

✕

 Validation passed

Basics Tags Review + create

Basics

Subscription	Azure subscription 1
Resource group	rg-azure-labs
Region	West Europe
Name	nsg-hr-portal

Tags

None

[Home](#)

CreateNetworkSecurityGroupBladeV2-20260321135450 | Overview ...

Deployment.

 Search

 Delete Cancel Redeploy Download Refresh

 Overview

 Inputs

☰ Outputs

 Template

✔ Your deployment is complete

Deployment name : CreateNetworkSecurityGroupBL... Start time : 3/21/2026, 1:57:12 PM
Subscription : Azure subscription 1 Correlation ID : e4ba6f9f-0a82-4ca2-8cb2-blof8...
Resource group : rg-azure-labs

> Deployment details

Next steps

[Go to resource](#)[Go to resource](#)[Go to resource group](#)

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Home

CreateNetworkSecurityGroupBladeV2-20260321135450

Overview

nsg-hr-portal

nsg-hr-portal | Subnets

Network security group

Search

Associate

Search subnets

Name

Address range

No results

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Resource visualizer

Settings

Inbound security rules

Outbound security rules

Network interfaces

Subnets

Properties

Locks

Monitoring

Automation

Help

Add or remove favorites by pressing Ctrl+Shift+F

Associate subnet

nsg-hr-portal

Virtual network

vnet-goodpeople-hr (rg-azure-lalos)

Subnet

subnet-hr-app

OK

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

Copilot

Home

CreateNetworkSecurityGroupBladeV2-20260321135450 | Overview

nsg-hr-portal

nsg-hr-portal | Inbound security rules

Network security group

Search

Diagnose and solve problems

Resource visualizer

Settings

Inbound security rules

Outbound security rules

Network interfaces

Subnets

Properties

Locks

Monitoring

Filter by name

Port -- all

Priority	Name	Port
65000	AllowVnetInBound	Any
65001	AllowAzureLoadBalan...	Any
65500	DenyAllInBound	Any

Add inbound security rule

nsg-hr-portal

Source

My IP address

Source IP addresses/CIDR ranges

31.153.33.72

Source port ranges

*

Destination

Any

Service

SSH

Destination port ranges

22

The port must be a number between 0 and 65535.

Protocol

Any

TCP

UDP

ICMPv4

ICMPv6

Action

Allow

Deny

Priority

100

Name

AllowMyIPInboundSSH

Description

Add

Cancel

Give feedback

Automation

Help

Add or remove favorites by pressing Ctrl+Shift+F

 nsg-hr-portal | Inbound security rules ☆ ...

Network security group

Search ◀ + Add ⚙ Hide default rules ↻ Refresh 🗑 Delete 🗣 Give feedback

- Overview
- Activity log
- Access control (IAM)
- Tags
- Diagnose and solve problems
- Resource visualizer
- Settings
- Inbound security rules**
- Outbound security rules
- Network interfaces
- Subnets
- Properties
- Locks
- Monitoring
- Automation
- Help

Network security group security rules are evaluated by priority using the combination of source, source port, destination, destination port, and protocol to allow or deny the traffic. A security rule can't have the same priority and direction as an existing rule. You can't delete default security rules, but you can override them with rules that have a higher priority. [Learn more](#) 

Filter by name	Port -- all	Protocol -- all	Source -- all	Destination -- all	Action -- all	
Priority ↑↓	Name ↑↓	Port ↑↓	Protocol ↑↓	Source ↑↓	Destination ↑↓	Action ↑
☐ 100	AllowMyIPinboundSSH	22	TCP	31.153.33.72	Any	Allow
☐ 65000	AllowVnetInBound	Any	Any	VirtualNetwork	VirtualNetwork	Allow
☐ 65001	AllowAzureLoadBalancer	Any	Any	AzureLoadBalancer	Any	Allow
☐ 65500	DenyAllInBound	Any	Any	Any	Any	Deny

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

Home > Default Directory | Users

 Users ...

Default Directory



✕ ⌵ + New user ✕ ✎ Edit ✕ Delete ⬇ Download users (Preview) 📄 Bulk operations ✕ 🔄 Refresh ⚙️ Manage view ✕ ...

 All users

 Audit logs

 Sign-in logs

 Diagnose and solve problems

 Deleted users

 Password reset

 User settings

 Bulk operation results

 Bulk operation results (Preview)

 New support request

🔍 Search

⌵ Add filter

1 user found

☐	Display name ↑	User principal name ↕	User type	Is Agent	On-premises sy...	Identities
☐	 Samuel Onyejekwe	samuelonyejekwe... 	Member	No	No	MicrosoftAccount

Add or remove columns by pressing **Ctrl + Shift + F**



Add role assignment

Role Members Conditions Review + assign

A role definition is a collection of permissions. You can use the built-in roles or you can create your own custom roles. [Learn more](#) »

 Copilot can help pick a role

Job function roles	Privileged administrator roles
---------------------------	---------------------------------------

Grant privileged administrator access, such as the ability to assign roles to other users.

⚠ Can a job function role with less access be used instead?

Search by role name, description, permission, or ID

Type : All

Category : All

Name	Description	Type	Category	Details
Owner	Grants full access to manage all resources, including the ability to assign roles in Azure RBAC.	BuiltInRole	General	View
Contributor	Grants full access to manage all resources, but does not allow you to assign roles in Azure RBAC.	BuiltInRole	General	View
Access Review Operator Service Role	Lets you grant Access Review System app permissions to discover and revoke access as needed.	BuiltInRole	None	View
Azure IoT Operations Onboarding	User can Azure arc connect and deploy Azure IoT Operations securely.	BuiltInRole	None	View
Role Based Access Control Administrator	Manage access to Azure resources by assigning roles using Azure RBAC. This role does not allow you to manage user access to Azure resources.	BuiltInRole	None	View
User Access Administrator	Lets you manage user access to Azure resources.	BuiltInRole	General	View

Showing 1 - 6 of 6 results.

Review • assign

[Previous](#)

Next

 Feedback

Next

Close

Add role assignment

Role	Members	Conditions	Review + assign
------	---------	------------	-----------------

Selected role	Contributor
---------------	-------------

Assign access to

- ☒ User, group, or service principal
- ☐ Managed identity

Members [+ Select members](#)

Name	Object ID	Type
HRAdmin	25466261-a053-4b5b-9949-aaefb53cf793	User

Description	Optional

Review + assign

[Previous](#)

Next

Home > Resource Manager > Resource groups > rg-azure-labs

rg-azure-labs | Access control (IAM)

Resource group



Search < < + Add > Download role assignments > Edit columns > Refresh > Delete > Feedback

- Overview
- Activity log
- Access control (IAM)**
- Tags
- Resource visualizer
- Events
- Settings
- Cost Management
- Monitoring
 - Insights (preview)
 - Alerts
 - Metrics

Add or remove functions by pressing Ctrl+Shift+F

Check access Role assignments Roles Deny assignments Classic administrators

My access

View my level of access to this resource.

[View my access](#)

Check access

Review the level of access a user, group, service principal, or managed identity has to this resource. [Learn more](#)

[Check access](#)

Grant access to this resource

Grant access to resources by assigning a role. [Learn more](#)

[Add role assignment](#)

View access to this resource

View the role assignments that grant access to this and other resources. [Learn more](#)

[View](#)

View deny assignments

View the role assignments that have been denied access to specific actions at this scope. [Learn more](#)

[View](#)

Create a custom role

Create a custom role for Azure resources with your own set of permissions to meet the specific needs of your organization. [Learn more](#)

[Add](#)

The selected resources along with their related resources and contents will be permanently deleted. If you are unsure of the selected resource dependencies, navigate to the individual resource page to perform the delete operation. More details of the resource dependencies are available in the manage experience.

1 resources being deleted across 1 subscriptions, 1 resource groups

Name	Resource type	Subscription	Resource Group
 em-hr-portal	Virtual machine	Azure subscription 1	rg-azure-labs Remove

Enter "delete" to confirm deletion *

delete

Delete

Cancel

nsg-hr-portal | Subnets ↗ ☆ ...

Network security group

Search

- + Associate

- Overview
- Activity log
- Access control (IAM)
- Tags
- Diagnose and solve problems
- Resource visualizer
- Settings
 - Inbound security rules
 - Outbound security rules
 - Network interfaces
 - Subnets**
 - Properties
 - Locks
- Monitoring
- Automation
- Help

Search subnets

Name	Address range	Virtual network
subnet-hr-app	10.20.1.0/24	vnet-goodpeople-hr

Dissociate

 Give feedback

Microsoft Azure

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

Copilot

Home

rg-azure-labs

rg-azure-labs | Access control (IAM)

Resource group

Search

+

Add

Download role assignments

Edit columns

Refresh

Delete

Feedback

Overview

Activity log

Access control (IAM)

Tags

Resource visualizer

Events

Settings

Deployments

Security

Deployment stacks

Policies

Properties

Locks

Cost Management

Monitoring

Insights (preview)

Alerts

Metrics

Diagnostic settings

Logs

Advisor recommendations

Workbooks

Automation

Help

Group by: Role

Remove role assignments

Are you sure you want to remove the selected role assignment?

Yes

No

Name	Type	Role	Scope	Condition
Owner (1)				
☐ Samuel Onyemekwe 208bf0ea-db5a-4b5...	User	Owner	Subscription (Inherited)	None
Contributor (1)				
☒ HRAdmin 25466261-a053-4b5...	User	Contributor	This resource	None

Showing 1 - 2 of 2 results.

Add or remove favorites by pressing Ctrl+Shift+F

Users
Default Directory

Default Directory

X

[x](#)
[<](#)
[+ New user](#)
[✎ Edit](#)
[🗑 Delete](#)
[⬇ Download users \(Preview\)](#)
[📄 Bulk operations](#)
[🔄 Refresh](#)
[⚙ Manage view](#)
[⋮](#)

 All users

 Audit logs

[Sign-in logs](#)

- ✕ Diagnose and solve problems

Deleted users

 Password reset

 User settings

 Bulk operation results

 Bulk operation results (Preview)

 New support request

Delete the selected users?

OK

Cancel

Display name	User principal name	User type	Is Agent	On-premises sy...	Identities
 HR Admin	hr.admin@samuel...	Member	No	No	SamuelOnyejekwe@S27.com
 Samuel Onyejekwe	samuelonyejekwe...	Member	No	No	MicrosoftAccount

Let's re-examine functions by plotting $f(t) = 3.5t_2(t+2)$

