

Name : Aryan Patel

Email : aaryanpatel03@gmail.com

Domain : Devops

WEEK 3 Assignment(Azure infra)

1. Observe assigned Subscriptions Observe Azure Entra ID or create own Azure Entra ID in personal Azure account Create test users and groups Assign a RBAC role to user and test Create a custom role and assign to users and test.

Steps :

1. Observe Assigned Subscriptions.

The screenshot shows the Microsoft Azure Portal home page. At the top, there is a search bar with the placeholder "subs". Below the search bar, there are three tabs: "All", "Services (17)", and "Resources (1)". The "All" tab is selected. A dropdown menu titled "Services" is open, showing "Subscriptions" as the first item. Other items in the dropdown include "OracleSubscriptions", "Billing subscriptions", and "Event Grid". To the right of the dropdown, there is a link "See more" and a "Give feedback" button. Below the search bar, there are several tiles: "Hi aaryan, see what more you can do", "Take a free online course on Microsoft Learn", "Watch a demo and attend a live Q&A", "Start a project with Quickstart Center", and "Explore support resources". At the bottom of the page, there are sections for "Azure services" (with icons for Create a resource, Container registries, App Services, App Service plans, Virtual machines, Quickstart Center, Azure AI Foundry, Kubernetes services, Storage accounts, and More services) and "Resources" (Recent and Favorite). The "Recent" section lists two items: "welcome-app" (App Service) and "celebal-week2" (Resource group), both last viewed a week ago. The status bar at the bottom shows a "Rain warning In effect" icon, system tray icons, and the date/time "23-06-2025 17:57".

Microsoft Azure Portal | Microsoft Azure Subscriptions - Microsoft Azure

portal.azure.com/#view/Microsoft_Azure_Billing/SubscriptionsBladeV2

Microsoft Azure Upgrade Search resources, services, and docs (G+/-) Copilot Home > Subscriptions Subscriptions Default Directory

Add Manage Policies View Requests View eligible subscriptions Export to CSV

Global administrators can manage all subscriptions in this list by updating their policy setting [here](#).

View list of subscriptions for which you have role-based access control (RBAC) permissions to manage Azure resources. To view subscriptions for which you have billing access, [click here](#)

Showing subscriptions in Default Directory directory. Don't see a subscription? [Switch directories](#)

Search for any field... Subscriptions : Filtered (1 of 1) My role == all Status == all Add filter

Subscription name	Subscription ID	My role	Current cost	Secure Score	Parent management group	Status
Azure subscription 1	2f3d5787-823d-4659-a9ca-90a60dd7dc26	Owner	₹673.77	19%	Tenant Root Group	Active

Rain warning In effect

Search ENG IN 23-06-2025

Microsoft Azure Portal | Microsoft Azure Azure subscription 1 - Microsoft Azure

portal.azure.com/#@aaryanpatel03@gmail.com/resource/subscriptions/2f3d5787-823d-4659-a9ca-90a60dd7dc26/users

Microsoft Azure Upgrade Search resources, services, and docs (G+/-) Copilot Home > Subscriptions > Azure subscription 1 Subscriptions Default Directory

Add Manage Policies

Global administrators can manage all subscriptions in this list by updating their policy setting [here](#).

View list of subscriptions for which you have role-based access control (RBAC) permissions to manage Azure resources. To view subscriptions for which you have billing access, [click here](#)

Showing subscriptions in Default Directory directory. Don't see a subscription? [Switch directories](#)

Subscriptions : Filtered (1 of 1) My role == all Status == all Add filter

Subscription

Overview Activity log Access control (IAM)

Action required: As of August 31, 2024, Azure classic administrator roles (along with Azure classic resources, Azure Service Manager) are retired and are no longer supported. If you still have active Co-Administrator or Service Administrator role assignments, convert these roles to Azure RBAC immediately. [Learn more](#)

Tags Diagnose and solve problems Security Resource visualizer Events Cost Management Billing Settings Help

Check access Role assignments Roles Deny assignments Classic administrators

Number of role assignments for this subscription 3 4000 Privileged 2

View assignments

All (2) Job function roles (0) Privileged administrator roles (2)

Name	Type	Role	Scope	Condition
aaryan patel ab99a72b-675e-4...	User	Owner	This resource	Add
aaryan patel ab99a72b-675e-4...	User	Owner	This resource	Add

Showing 1 - 2 of 2 results.

Rainy days ahead 32°C

Search ENG IN 23-06-2025

2. Observe Azure Entra ID or Create New Azure Entra ID.

The screenshot shows the Microsoft Azure Portal homepage. At the top, there's a search bar with the query "azure Entra". Below the search bar, there are several service cards and links:

- Azure Database for MySQL servers
- Azure Cosmos DB
- Microsoft Entra ID
- Azure Databricks
- BloodHound Enterprise, built by SpecterOps
- Azure Architecture Center - Azure Architecture Center
- Azure roles, Microsoft Entra roles, and classic subscription administrator roles
- Quickstart - Access and create new tenant - Microsoft Entra
- Configure a connection string - Azure Storage
- Continue searching in Microsoft Entra ID

On the right side, there are links to "Explore support resources", "Azure AI Foundry", "Kubernetes services", and "More services". The bottom of the screen shows a taskbar with various pinned icons and system status indicators.

The screenshot shows the "Default Directory | Overview" page in the Microsoft Entra ID admin center. The left sidebar has an "Overview" section with links for "Preview features", "Diagnose and solve problems", "Manage", "Monitoring", and "Troubleshooting + Support". The main content area has tabs for "Overview", "Monitoring", "Properties", "Recommendations", and "Setup guides".

Basic information

Name	Default Directory	Users	1
Tenant ID	Sa16d2cf-7513-4855-9844-09c1d49ddaa0e	Groups	0
Primary domain	aaryanpatel03@gmail.onmicrosoft.com	Applications	0
License	Microsoft Entra ID Free	Devices	0

Alerts

- MSOnline PowerShell Retirement**
Please migrate from any use of MSOnline PowerShell. This module is deprecated and will retire in April 2025. Temporary outages for MSOnline PowerShell will occur between January and March 2025.
[Learn more](#)
- Migrate to the converged Authentication methods policy**
Please migrate your authentication methods off the legacy MFA and SSPR policies by September 2025 to avoid any service impact.
[Learn more](#)

My feed

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

At the bottom, there's a taskbar with pinned icons and system status indicators.

3. Create Test Users and Groups.

- Create Users :

The screenshot shows the Microsoft Azure Portal homepage. At the top, there's a search bar with the text "azure entra". Below it, a banner says "Hi aaryan, see what more you can do" and "You've got 22 days left to use the remaining ₹16,404.86". A sidebar on the left lists "Azure services" like "Create a resource" and "Microsoft Entra ID", and "Resources" like "Recent" and "Favorite". The main content area shows a list of services under "Services" such as "Azure Database for MySQL servers", "Azure Cosmos DB", and "Microsoft Entra ID". There are also sections for "Marketplace" and "Documentation". On the right, there's a "Copilot" button, a "Copilot" icon, and a "Explore support resources" section with a magnifying glass and user icon icon. The bottom of the screen shows the Windows taskbar with various pinned icons like File Explorer, Search, Task View, and Microsoft Edge.

The screenshot shows the "Default Directory | Overview" page in the Microsoft Azure Portal. The left sidebar has sections for "Overview", "Preview features", "Diagnose and solve problems", "Manage", "Monitoring", and "Troubleshooting + Support". The main content area has tabs for "User", "Group", "Enterprise application", and "App registration". The "User" tab is selected, showing options like "Create new user", "Invite external user", and "Setup guides". Below this, there's a "Basic information" table with details: Name (Default Directory), Tenant ID (5a16d2cf-7513-4855-9844-09c1d49ddaa0e), Primary domain (aaryanpatel03@gmail.onmicrosoft.com), and License (Microsoft Entra ID Free). There are also "Users" (1), "Groups" (0), "Applications" (0), and "Devices" (0). At the bottom, there are two alerts: "MSOnline PowerShell Retirement" (warning about migration) and "Migrate to the converged Authentication methods policy" (warning about legacy MFA and SSPR policies). The bottom of the screen shows the Windows taskbar with various pinned icons like File Explorer, Search, Task View, and Microsoft Edge.

Microsoft Azure Portal | Microsoft Azure | Create new user - Microsoft Azure | +

portal.azure.com/#view/Microsoft_AAD_UsersAndTenants/CreateUser.ReactView

Microsoft Azure Upgrade Search resources, services, and docs (G+/J) Copilot Home > Default Directory | Overview > Create new user ... Create a new internal user in your organization Basics Properties Assignments Review + create

Create a new user in your organization. This user will have a user name like alice@contoso.com. Learn more ↗

Identity

User principal name * testuser1 @ aaryanpatel03@gmail.on...

Domain not listed? Learn more ↗

Mail nickname * testuser1 Derive from user principal name

Display name * test user1

Password * Jocu079614 Auto-generate password

Account enabled

Review + create < Previous Next: Properties > Give feedback

7 Rainy days ahead 30°C Search ENG IN 23-06-2025

Microsoft Azure Portal | Microsoft Azure | Create new user - Microsoft Azure | +

portal.azure.com/#view/Microsoft_AAD_UsersAndTenants/CreateUser.ReactView

Microsoft Azure Upgrade Search resources, services, and docs (G+/J) Copilot Home > Default Directory | Overview > Create new user ... Create a new internal user in your organization Basics Properties Assignments Review + create

Basics

User principal name testuser1@aaryanpatel03@gmail.onmicrosoft.com

Display name test user1

Mail nickname testuser1

Password

Account enabled Yes

Properties

User type Member

Assignments

Administrative units

Groups

Roles

Create < Previous Next > Give feedback

7 Rainy days ahead 30°C Search ENG IN 23-06-2025

● Groups :

Default Directory | Overview

User > [Simpler integrated experience for managing all your Identity and Access Management needs. Try the new Microsoft Entra admin center.](#)

Basic information

Name	Default Directory	Users	2
Tenant ID	5a16d2cf-7513-4855-9844-09c1d49dd0e	Groups	0
Primary domain	aaryanpatel03@gmail.onmicrosoft.com	Applications	0
License	Microsoft Entra ID Free	Devices	0

Alerts

- MSOnline PowerShell Retirement**
Please migrate from any use of MSOnline PowerShell. This module is deprecated and will retire in April 2025. Temporary outages for MSOnline PowerShell will occur between January and March 2025.
[Learn more](#)
- Migrate to the converged Authentication methods policy**
Please migrate your authentication methods off the legacy MFA and SSPR policies by September 2025 to avoid any service impact.
[Learn more](#)

My feed

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

3 cm of rain Saturday

Search

ENG IN 18:09 23-06-2025

Add owners

New Group

Group type * Security

Group name * TestGroup1

Group description Enter a description for the group

Membership type Assigned

Owners
1 owner selected

Members
1 member selected

Try changing or adding filters if you don't see what you're looking for.

Search 2 results found

All Users

	Name	Type	Details
<input type="checkbox"/>	aaryan patel	User	aaryanpatel03@gmail.com
<input checked="" type="checkbox"/>	test user1	User	testuser1@aaryanpatel03@gmail.onmicrosoft.co

Owners (1)

Reset

test user1

Create Select

Light rain At night

Search

ENG IN 18:11 23-06-2025

Microsoft Azure Portal | Microsoft | Add members - Microsoft Azure | portal.azure.com/#view/Microsoft_AAD_IAM/AddGroupBlade

Microsoft Azure | Upgrade | Search resources, services, and docs (G+) | Copilot | Home > Default Directory | Overview > New Group ...

Got feedback? | Group type * Security | Group name * TestGroup1 | Group description Enter a description for the group | Membership type Assigned

Owners: 1 owner selected

Members: 1 member selected

Add members

Try changing or adding filters if you don't see what you're looking for.

Search: 102 results found

All Users Groups Devices Enterprise applications

Name	Type	Details
AAD Request Verification Service...	Enterprise ap...	c728155f-7b2a-4502-a08b-b8af9b269319
aaryan patel	User	aaryanpatel03@gmail.com
AADReporting	Enterprise ap...	1b912ec3-a9dd-4c4d-a53e-76aa7adb28d7
<input checked="" type="checkbox"/> test user1	User	testuser1@aaryanpatel03@gmail.onmicrosoft.com
aciapi	Enterprise ap...	c5b17a4f-cc6f-4649-9480-684280a2af3a
Application Insights API	Enterprise ap...	f5c26e74-f226-4ae8-85f0-b4af0080ac9e
Application Insights Configuratio...	Enterprise ap...	6a0a243c-0886-468a-a4c2-eff52c7445da
Azure Advisor	Enterprise ap...	c39c9bac-9d1f-4dfb-aa29-27f6365e5cb7

Create | Select

Light rain At night | Search | Copilot | Notifications | ENG IN | 18:11 | 23-06-2025

Microsoft Azure Portal | Microsoft | Default Directory - Microsoft Azure | portal.azure.com/#view/Microsoft_AAD_IAM/ActiveDirectoryMenuBlade/~/Overview

Microsoft Azure | Upgrade | Search resources, services, and docs (G+) | Copilot | aaryanpatel03@gmail.com | DEFAULT DIRECTORY

Home > Default Directory | Overview

Overview | Add | Manage tenants | What's new | Preview features | Got feedback?

Microsoft Entra has a simpler, integrated experience for managing all your Identity and Access Management needs. Try the new Microsoft Entra admin center! [Learn more](#)

Overview | Monitoring | Properties | Recommendations | Setup guides

Search your tenant

Basic information

Name	Default Directory
Tenant ID	5a16d2cf-7513-4855-9844-09c1d49dda0e
Primary domain	aaryanpatel03@gmail.onmicrosoft.com
License	Microsoft Entra ID Free
Users	2
Groups	0
Applications	0
Devices	0

Alerts

MSOnline PowerShell Retirement

Add or remove favorites by pressing Ctrl+Shift+F

Light rain Tomorrow | Search | Copilot | Notifications | ENG IN | 18:12 | 23-06-2025

Microsoft Azure Portal | Microsoft Azure - TestGroup1 - Microsoft Azure

portal.azure.com/#view/Microsoft_AAD_IAM/GroupDetailsMenuBlade/~/Overview/groupId/0642f682-a709-43b0-a72f-eae7a644ac32/menuId/

Microsoft Azure Upgrade Search resources, services, and docs (G+) Copilot Home > Default Directory | Overview > Groups | Overview > All groups > TestGroup1

TestGroup1 Group Overview Delete Got feedback?

Overview

Diagnose and solve problems Manage Activity Troubleshooting + Support

Basic information

TestGroup1

Membership type: Assigned Total direct members: 1
Source: Cloud User(s): 1
Type: Security Group(s): 0
Object ID: 0642f682-a709-43b0-a72f-eae7a644ac32 Device(s): 0
Created on: 6/23/2025, 6:11 PM Other(s): 0

Feed

Group memberships: 0 View group memberships

Owners: 1 View group owners

Total members: 1 View group members

Add or remove favorites by pressing Ctrl+Shift+F

Light rain Tomorrow Search ENG IN 18:13 23-06-2025

Microsoft Azure Portal | Microsoft Azure - TestGroup1 - Microsoft Azure

portal.azure.com/#view/Microsoft_AAD_IAM/GroupDetailsMenuBlade/~/Owners/groupId/0642f682-a709-43b0-a72f-eae7a644ac32/menuId/

Microsoft Azure Upgrade Search resources, services, and docs (G+) Copilot aaryanpatel03@gmail.c... DEFAULT DIRECTORY

Home > Default Directory | Overview > Groups | Overview > All groups > TestGroup1

TestGroup1 Owners Group

Add owners Refresh Manage view Remove Got feedback?

Search Add filter

1 group owner found

Name ↑	Type	Email	User type	Object Id
test user1	User		Member	fd591980-808c-4460-a860

Overview Diagnose and solve problems Manage Properties Members Owners Roles and administrators Administrative units Group memberships Applications Licenses Azure role assignments Activity Troubleshooting + Support

Hot days ahead 30°C Search ENG IN 18:13 23-06-2025

4. Assign a RBAC Role to User and Test.

The screenshot shows the Microsoft Azure Portal homepage. A search bar at the top right contains the text 'subs'. Below the search bar, a sidebar on the left lists 'Azure services' and 'Resources'. The main content area displays search results for 'subs', including 'Subscriptions' (with 17 items), 'Billing subscriptions', 'Event Grid', and 'Azure subscription 1'. To the right, there's a 'Explore support resources' section with icons for 'Quickstart Center', 'Azure AI Foundry', and 'More services'. The bottom of the screen shows the Windows taskbar with various pinned icons.

The screenshot shows the 'Subscriptions' blade in the Microsoft Azure Portal. The URL in the address bar is https://portal.azure.com/#view/Microsoft_Azure_Billing/SubscriptionsBladeV2. The page displays a list of subscriptions, with one item visible: 'Azure subscription 1' (Subscription ID: 2f3d5787-823d-4659-a9ca-90a60ddd7dc26, My role: Owner, Current cost: ₹673.77, Secure Score: 19%, Parent management group: Tenant Root Group, Status: Active). There are filters at the top for 'Search for any field...', 'Subscriptions : Filtered (1 of 1)', 'My role == all', 'Status == all', and 'Add filter'. The bottom of the screen shows the Windows taskbar with various pinned icons.

Microsoft Azure | Microsoft | portal.azure.com/#@aaryanpatel03@gmail.onmicrosoft.com/resource/subscriptions/2f3d5787-823d-4659-a9ca-90a60dd7dc26/overview

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

Copilot Feedback

aaryanpatel03@gmail.c... DEFAULT DIRECTORY

Home > Subscriptions >

Subscriptions

Default Directory

+ Add Manage Policies ...

Global administrators can manage all subscriptions in this list by updating their policy setting [here](#).

View list of subscriptions for which you have role-based access control (RBAC) permissions to manage Azure resources. To view subscriptions for which you have billing access, [click here](#). Showing subscriptions in Default Directory directory. Don't see a subscription? [Switch directories](#)

Subscriptions : Filtered (1 of 1)

My role == all Status == all + Add filter

Subscription name ↑↓

Azure subscription 1 ...

Subscription ID: 2f3d5787-823d-4659-a9ca-90a60dd7dc26

Directory: Default Directory (aaryanpatel03@gmail.onmicrosoft.com)

Status: Active

Parent management group: Sa16d2cf-7513-4855-9844-09c1d49dd0e

Subscription name: Azure subscription 1

My role: Owner

Plan: Azure Plan

Secure Score: 19%

Spending rate and forecast

Costing rate and forecast

Costs by resource

Top free services by usage

Top products by number of resources

Azure Defender coverage

Cloudy 30°C

Search

ENG IN 23-06-2025

Microsoft Azure | Microsoft | portal.azure.com/#@aaryanpatel03@gmail.onmicrosoft.com/resource/subscriptions/2f3d5787-823d-4659-a9ca-90a60dd7dc26/users

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

Copilot Feedback

aaryanpatel03@gmail.c... DEFAULT DIRECTORY

Home > Subscriptions > Azure subscription 1

Subscriptions

Default Directory

+ Add Manage Policies ...

Global administrators can manage all subscriptions in this list by updating their policy setting [here](#).

View list of subscriptions for which you have role-based access control (RBAC) permissions to manage Azure resources. To view subscriptions for which you have billing access, [click here](#). Showing subscriptions in Default Directory directory. Don't see a subscription? [Switch directories](#)

Subscriptions : Filtered (1 of 1)

My role == all Status == all + Add filter

Subscription name ↑↓

Azure subscription 1 ...

Action required: As of August 31, 2024, [Azure classic administrator roles](#) (along with Azure classic resources, Azure Service Manager) are retired and are no longer supported. If you still have active Co-Administrator or Service Administrator role assignments, convert these roles to Azure RBAC immediately. [Learn more](#)

Check access Role assignments Roles Deny assignments Classic administrators

My access

Check access

Grant access to this resource

View access to this resource

Add role assignment View

View deny assignments Create a custom role

https://portal.azure.com/#

Cloudy 30°C

Search

ENG IN 23-06-2025

Microsoft Azure Portal | Microsoft | Azure subscription 1 - Microsoft | portal.azure.com/#@aaryanpatel03@gmail.onmicrosoft.com/resource/subscriptions/2f3d5787-823d-4659-a9ca-90a60dd7dc26/users

Microsoft Azure Upgrade Search resources, services, and docs (G+) Copilot Feedback

Home > Subscriptions > Azure subscription 1

Subscriptions

Default Directory

+ Add Manage Policies

Global administrators can manage all subscriptions in this list by updating their policy setting [here](#).

View list of subscriptions for which you have role-based access control (RBAC) permission to manage Azure resources. To view subscriptions for which you have billing access, [click here](#). Showing subscriptions in Default Directory directory. Don't see a subscription? [Switch directories](#)

Subscriptions: Filtered (1 of 1)

My role == all Status == all + Add filter

Subscription name ↑↓

Azure subscription 1 ...

Overview Activity log Access control (IAM) Tags Diagnose and solve problems Security Resource visualizer Events Cost Management Billing Settings Help

Add role assignment Add co-administrator Add custom role

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 View access to this resource

Grant access to resources by assigning a role. Learn more

Add role assignment View

View deny assignments Create a custom role

7 30°C Cloudy Search ENG IN 18:17 23-06-2025

Microsoft Azure Portal | Microsoft | Add role assignment - Microsoft | portal.azure.com/#view/Microsoft_Azure_AD/AddRoleAssignmentsLandingBlade/scope/%2Fsubscriptions%2F3d5787-823d-4659-a9ca-90a60dd7dc26/abacSettings~%...

Microsoft Azure Upgrade Search resources, services, and docs (G+) Copilot Feedback

Home > Subscriptions > Azure subscription 1 | Access control (IAM) >

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](#)

Job function roles Privileged administrator roles

Grant access to Azure resources based on job function, such as the ability to create virtual machines.

Search by role name, description, permission, or ID Type: All Category: All

Name ↑↓	Description ↑↓	Type ↑↓	Category ↑↓	Details
Reader	View all resources, but does not allow you to make any changes.	BuiltInRole	General	View
AcrDelete	acr delete	BuiltInRole	Containers	View
AcrImageSigner	acr image signer	BuiltInRole	Containers	View
AcrPull	acr pull	BuiltInRole	Containers	View
AcrPush	acr push	BuiltInRole	Containers	View
AcrQuarantineReader	acr quarantine data reader	BuiltInRole	Containers	View
AcrQuarantineWriter	acr quarantine data writer	BuiltInRole	Containers	View
Advisor Recommendations Contributor (Assess...)	View assessment recommendations, accepted review recommendations, and manage the recommendations lifecycle (mark...)	BuiltInRole	None	View
Advisor Reviews Contributor	View reviews for a workload and triage recommendations linked to them.	BuiltInRole	None	View
Advisor Reviews Reader	View reviews for a workload and recommendations linked to them.	BuiltInRole	None	View
Agentless scanning for Serverless Scanner Servi...	Grants access to Serverless resources and thier connections	BuiltInRole	None	View

Review + assign Previous Next Feedback

7 30°C Cloudy Search ENG IN 18:18 23-06-2025

Microsoft Azure Portal | Microsoft Azure | Select members - Microsoft Azure

portal.azure.com/#view/Microsoft_Azure_AD/AddRoleAssignmentsLandingBlade/scope/%2Fsubscriptions%2F2f3d5787-823d-4659-a9ca-90a60dd7dc26/abacSettings~/%

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

aaryanpatel03@gmail.com DEFAULT DIRECTORY

Home > Subscriptions > Azure subscription 1 | Access control (IAM) > Add role assignment ...

Add role assignment

Members* Conditions Review + assign

Selected role Reader

Assign access to User, group, or service principal Managed identity

Members + Select members

Name	Object ID	Type
No members selected		

Description Optional

Review + assign Previous Next Select Close

Select members

Search by name or email address

aaryan patel(Guest)
aaryanpatel03@gmail.com#EXT#@aaryanpatel03@gmail.onmicrosoft.com

test user1
testuser1@aaryanpatel03@gmail.onmicrosoft.com

TestGroup1
0642f682-a709-43b0-a72f-eae7a644ac32

Selected members:

test user1
testuser1@aaryanpatel03@gmail.onmicrosoft.com

Microsoft Azure Portal | Microsoft Azure subscription 1 - Microsoft Azure

portal.azure.com/#@aaryanpatel03@gmail.onmicrosoft.com/resource/subscriptions/2f3d5787-823d-4659-a9ca-90a60dd7dc26/users

Microsoft Azure

Upgrade

Search resources, services, and docs (G+)

Copilot

aaryanpatel03@gmail.c... DEFAULT DIRECTORY

Home > Subscriptions > Azure subscription 1

Azure subscription 1 | Access control (IAM)

Subscription

Search

Add Download role assignments Edit columns Refresh Delete Feedback

Action required: As of August 31, 2024, Azure classic administrator roles (along with Azure classic resources, Azure Service Manager) are retired and are no longer supported. If you still have active Co-Administrator or Service Administrator role assignments, convert these roles to Azure RBAC immediately. [Learn more](#)

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Security

Resource visualizer

Events

> Cost Management

> Billing

> Settings

> Help

Notifications

More events in the activity log → Dismiss all

Added Role assignment

test user1 was added as Reader for Azure subscription 1. a few seconds ago

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

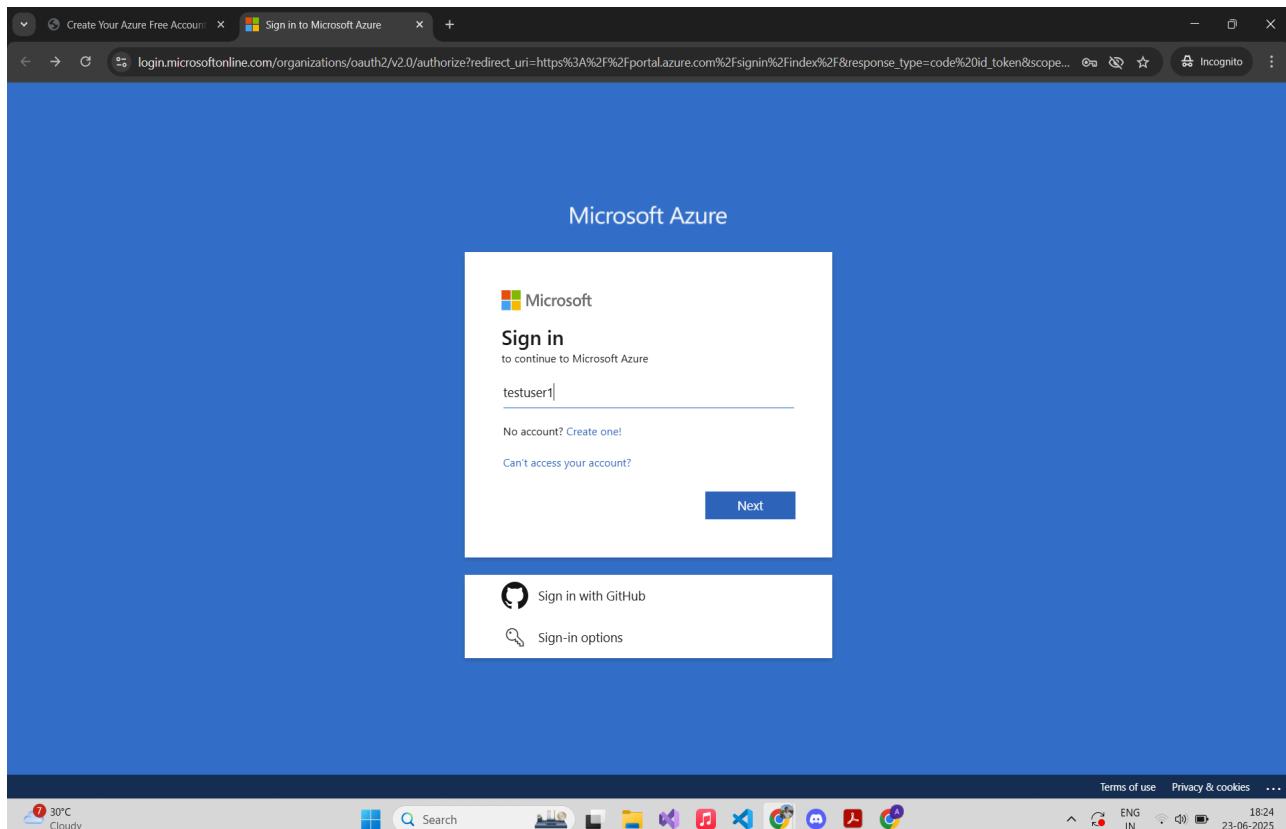
View access to this resource

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

View

Add or remove favorites by pressing Ctrl+Shift+F

Cloudy 30°C ENG IN 18:29 23-06-2025



A screenshot of the Microsoft Azure home page (`portal.azure.com`). The top navigation bar includes the Microsoft Azure logo, a search bar, and a Copilot icon. The user is identified as "testuser1@aaryanpatel0...". The main content area features a welcome message for a free account, followed by four promotional cards: "Take a free online course on Microsoft Learn", "Watch a demo and attend a live Q&A", "Start a project with Quickstart Center", and "Explore support resources". Below this is a section titled "Azure services" with icons for "Create a resource", "Quickstart Center", "Azure AI Foundry", "Kubernetes services", "Virtual machines", "App Services", "Storage accounts", "SQL databases", "Azure Cosmos DB", and "More services". The "Resources" section shows a table with columns for "Name", "Type", and "Last Viewed", though no data is present. The browser's taskbar at the bottom shows various pinned icons and the date/time as 23-06-2025.

Screenshot of the Microsoft Azure Compute infrastructure Virtual machines page.

The left sidebar shows navigation options: Overview, All resources, Infrastructure, Virtual machines (selected), Virtual Machine Scale Set (VMSS), Compute Fleet, Disks + images, Capacity + placement, Related services, and Help.

The main content area displays two virtual machines:

Name	Subscription	Resource Group	Location	Status
linux-vm	Azure subscript...	celebal-week2	Central India	Stopped (deall...)
windows-vm	Azure subscript...	celebal-week2	Central India	Stopped (deall...)

Filtering options include Subscription equals all, Type equals all, Resource Group equals all, and Location equals all. A note indicates: "You are viewing a new version of Browse experience. Some features may be missing. Click here to access the old experience."

The right side shows a Notifications panel with one event:

Executed delete command on 1 selected items

Succeeded: 0, Failed: 1, Canceled: 0.

Error details:

`windows-vm: The client 'testuser1@aaryanpatel03@gmail.onmicrosoft.com' with object id 'f591980-808c-4460-a860-ab42698fad38' does not have authorization to perform action 'Microsoft.Compute/virtualMachines/delete' over scope '/subscriptions/2fd5787-823d-4659-a9ca-90a60dd7dc26/resourceGroups/celebal-week2/providers/Microsoft.Compute/virtualMachines/windows-vm' or the scope is invalid. If access was recently granted, please refresh your credentials. (Code: AuthorizationFailed)`

Help me troubleshoot

2 minutes ago

Bottom status bar:

- Light rain Tomorrow
- Search icon
- File Explorer icon
- Task View icon
- Power icon
- Network icon
- Signal strength icon
- Battery icon
- ENG IN
- 23-06-2025 18:41

5. Create a Custom Role and Assign to User.

The screenshot shows the Microsoft Azure Portal home page. At the top, there's a search bar with the text "sub". Below it, a sidebar on the left lists "Azure services" and "Resources". The main area displays a list of services and resources, including "Subscriptions", "Marketplace", "Documentation", and "Quickstart Center". On the right, there's a "Explore support resources" section with a magnifying glass icon.

The screenshot shows the "Access control (IAM)" blade for "Azure subscription 1". The left sidebar lists "Subscriptions", "Default Directory", and "Activity log". The main content area shows the "Access control (IAM)" tab selected. It includes sections for "Add role assignment", "Check access", "My access", and "View access to this resource". There are also buttons for "Add role assignment", "View", "View deny assignments", and "Create a custom role". A message at the top right states: "of August 31, 2024, Azure classic administrator roles (along with Azure classic resources, Azure Service Manager) are retired and are no longer supported. You still have active Co-Administrator or Service Administrator role assignments; convert these roles to Azure RBAC immediately." A note at the bottom left says: "Global administrators can manage all subscriptions in this list by updating their policy setting [here](#)".

Microsoft Azure Portal | Microsoft Azure | Create a custom role - Microsoft Azure | portal.azure.com/#view/Microsoft_Azure_AD/CreateCustomRoleLandingBlade/roleId~/null/scope/%2Fsubscriptions%2Ff2f3d5787-823d-4659-a9ca-90a60dd7dc26/cloneR... +

Microsoft Azure Upgrade Search resources, services, and docs (G+/) Copilot Home > Subscriptions > Azure subscription 1 | Access control (IAM) > Create a custom role ...

Basics Permissions * Assignable scopes JSON Review + create

To create a custom role for Azure resources, fill out some basic information. [Learn more](#)

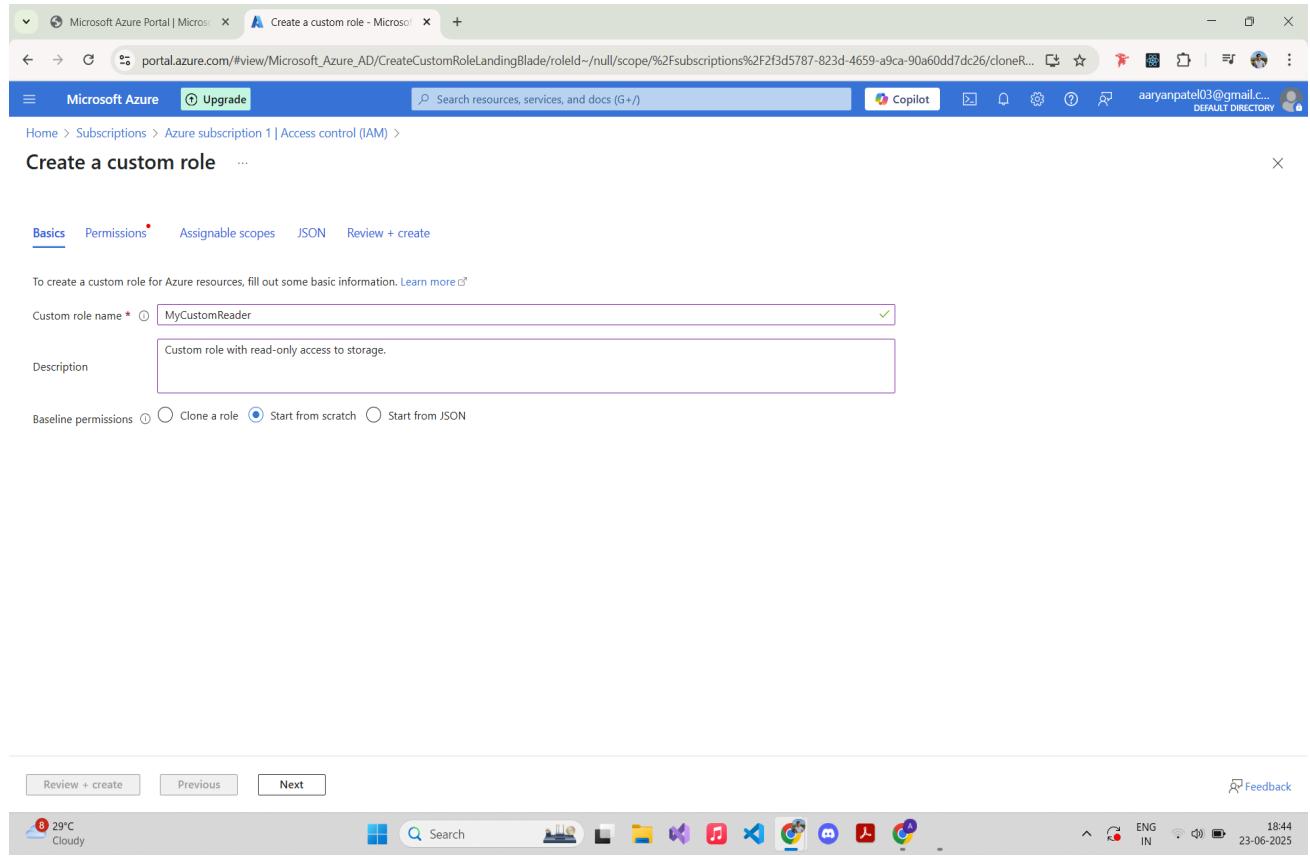
Custom role name * ✓

Description

Baseline permissions Clone a role Start from scratch Start from JSON

Review + create Previous Next Feedback

29°C Cloudy Search ENG IN 18:44 23-06-2025



Microsoft Azure Portal | Microsoft Azure | Add permissions - Microsoft Azure | portal.azure.com/#view/Microsoft_Azure_AD/CreateCustomRoleLandingBlade/roleId~/null/scope/%2Fsubscriptions%2Ff2f3d5787-823d-4659-a9ca-90a60dd7dc26/cloneR... +

Microsoft Azure Upgrade Search resources, services, and docs (G+/) Copilot Home > Subscriptions > Azure subscription 1 | Access control | Create a custom role | Add permissions ...

Add permissions

Search for permissions to add to your custom role. For example, search for "virtual machines" to find permissions related to virtual machines.

Basics Permissions * Assignable scopes JSON Review + create

+ Add permissions + Exclude permissions

Click Add permissions to select the permissions you want to add. To add a wildcard (*) permission, you must manually add the permission. To exclude specific permissions from a wildcard permission, click Exclude.

Permission ↑↓ Desc

No permissions to display.

ArizeAI.ObservabilityEval ArizeAI.ObservabilityEval

Astronomer.Astro Astronomer.Astro

Azure Active Directory microsoft.aadiam

Azure Communication Services Microsoft.Communication

Azure Data Box Move stored or in-flight data to Azure quickly and cost-effectively.

Azure Database Migration Service Simplify on-premises database migration to the cloud.

Azure Digital Twins Microsoft.DigitalTwins

Azure IoT Central Experience the simplicity of SaaS for IoT, with no cloud expertise required.

Azure Log Analytics Microsoft.OperationalInsights

Azure Red Hat OpenShift Microsoft.RedHatOpenShift

Azure Stack Resource Provider Build and run innovative hybrid applications across cloud boundaries.

Azure Synapse Analytics (workspaces) Microsoft.Synapse

Bing Search Microsoft.Bing

Bot Service Resource Provider Intelligent, serverless bot service that scales on demand.

D365CustomerInsights Microsoft.D365CustomerInsights

Database fleet Microsoft.DatabaseFleetManager

Dell.Storage

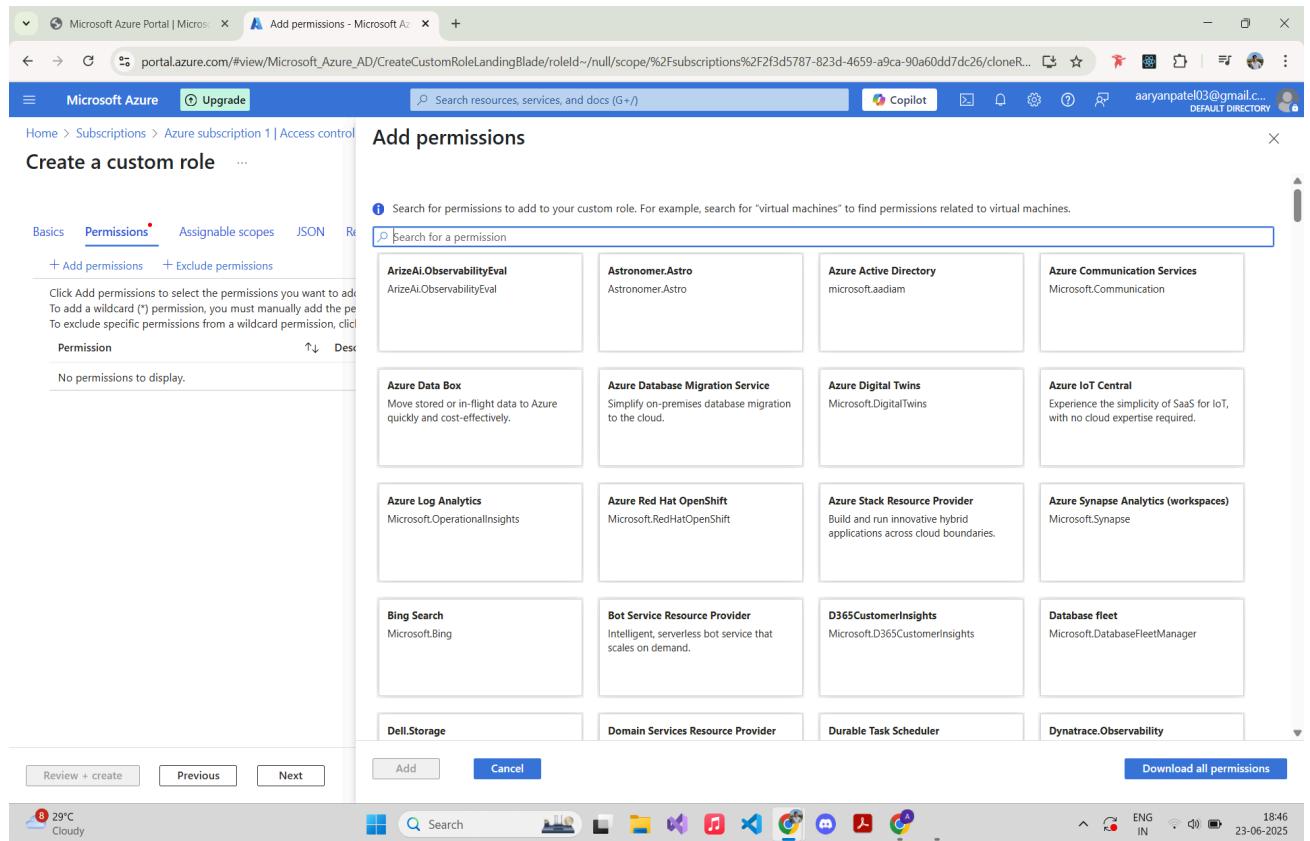
Domain Services Resource Provider

Durable Task Scheduler

Dynatrace.Observability

Review + create Previous Next Add Cancel Download all permissions

29°C Cloudy Search ENG IN 18:46 23-06-2025



Microsoft Azure Portal | Microsoft Storage permissions

Microsoft Storage permissions

Create a custom role

Basics Permissions Assignable scopes JSON Review + create

+ Add permissions + Exclude permissions

Click Add permissions to select the permissions you want to add. To add a wildcard (*) permission, you must manually add the permission. To exclude specific permissions from a wildcard permission, click + Add permissions + Exclude permissions

Permission Description

No permissions to display.

All resource providers

Search for permissions to add to your custom role. For example, search for "virtual machines" to find permissions related to virtual machines.

Microsoft Storage

Actions Data Actions

Permission

Microsoft.Storage

- Other : Registers the Storage Resource Provider
- Other
- Other

Microsoft.Storage/deletedAccounts

- Read

Microsoft.Storage/resilienciesProgressions

- Read

Microsoft.Storage/locations

- Other : Delete virtual network or subnets notifications
- Other
- Other

Microsoft.Storage/locations/ActionsRPOperationStatuses

Description

Registers the subscription for the storage resource provider and enables the creation of storage accounts.

--

--

--

--

--

--

--

Review + create Previous Next

Add Cancel

Cloudy 29°C Search ENG IN 23-06-2025 18:47

Microsoft Azure Portal | Microsoft Create a custom role - Microsoft

Create a custom role

Basics Permissions Assignable scopes JSON Review + create

Basics

Role name MyCustomReader

Role description Custom role with read-only access to storage.

Permissions

Action	Microsoft.Storage/register/action
Action	Microsoft.Storage/unregister/action
Action	Microsoft.Storage/deletedAccounts/read
Action	Microsoft.Storage/resilienciesProgressions/read
Action	Microsoft.Storage/locations/deleteVirtualNetworkOrSubnets/action
Action	Microsoft.Storage/locations/notifyNetworkSecurityPerimeterUpdatesAvailable/action
Action	Microsoft.Storage/locations/previewActions/action
Action	Microsoft.Storage/locations/ActionsRPOperationStatuses/write
Action	Microsoft.Storage/locations/ActionsRPOperationStatuses/read
Action	Microsoft.Storage/locations/checknameavailability/read
Action	Microsoft.Storage/locations/usages/read
Action	Microsoft.Storage/checknameavailability/read

Create Previous Feedback

Cloudy 29°C Search ENG IN 23-06-2025 18:48

Microsoft Azure Portal | Microsoft | Azure subscription 1 - Microsoft | +

portal.azure.com/#@aaryanpatel03@gmail.onmicrosoft.com/resource/subscriptions/2f3d5787-823d-4659-a9ca-90a60dd7dc26/users

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

aaryanpatel03@gmail.com | DEFAULT DIRECTORY

Home > Subscriptions > Azure subscription 1

Subscriptions

Default Directory

+ Add | Manage Policies | ...

Global administrators can manage all subscriptions in this list by updating their policy setting [here](#).

View list of subscriptions for which you have role-based access control (RBAC) permissions to manage Azure resources. To view subscriptions for which you have billing access, [click here](#).

Showing subscriptions in Default Directory directory. Don't see a subscription? [Switch directories](#)

Subscriptions : Filtered (1 of 1)

My role == all

Status == all

+ Add filter

Subscription name ↑

Azure subscription 1 | ...

Azure subscription 1 | Access control (IAM)

Subscription

Search | Overview | Activity log | Access control (IAM) | Tags | Diagnose and solve problems | Security | Resource visualizer | Events | Cost Management | Billing | Settings | Help

Action required: As of August 31, 2024, [Azure classic administrator roles](#) (along with Azure classic resources, Azure Service Manager) are retired and are no longer supported. If you still have active Co-Administrator or Service Administrator role assignments, convert these roles to Azure RBAC immediately. [Learn more](#)

Check access | Role assignments | Roles | Deny assignments | Classic administrators

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](#)

All | Job function roles | Privileged administrator roles

Mycus | Type : All | Category : All

Name ↑	Description ↑	Type ↑	Category ↑	Details
MyCustomReader	Custom role with read-only access to storage.	CustomRole	None	View ...

Showing 1 - 1 of 1 results.

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

Cloudy | 29°C | 18:49 | 23-06-2025

Microsoft Azure Portal | Microsoft | MyCustomReader - Microsoft | +

portal.azure.com/#@aaryanpatel03@gmail.onmicrosoft.com/resource/subscriptions/2f3d5787-823d-4659-a9ca-90a60dd7dc26/users

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

aaryanpatel03@gmail.com | DEFAULT DIRECTORY

Home > Azure subscription 1

Azure subscription 1 | Access control (IAM)

Subscription

+ Add | Manage Policies | ...

Action required: Administrator role assignments are being phased out. Learn more

Overview | Activity log | Access control (IAM) | Tags | Diagnose and solve problems | Security | Resource visualizer | Events | Cost Management | Billing | Settings | Help

Check access | Role assignments | Roles | Deny assignments | Classic administrators

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](#)

All | Job function roles | Privileged administrator roles

MyCustomReader | Type : All | Category : All

MyCustomReader

CustomRole

Permissions | JSON | Assignments

Description: Custom role with read-only access to storage.

Search permissions | Type : All

Permission Type
 Actions DataActions

Showing 180 of 180 permissions

Type	Permissions	Description
Other	Registers the Storage Resource Provider	Registers the subscription for the storage resource provider and enables the creation of storage accounts.
Other	--	--
Other	--	--
Read	--	--
Read	--	--
Other	Delete virtual network or subnets notifications	Notifies Microsoft.Storage that virtual network or subnet is being deleted
Other	--	--
Other	--	--
Write	Creates or updates an ActionsRP operation status	Creates or updates an ActionsRP operation status
Read	Get an ActionsRP operation status	Get an ActionsRP operation status
Read	Check Name Availability	Checks that account name is valid and is not in use.
		Returns the limit and the current usage count for resources in the specified

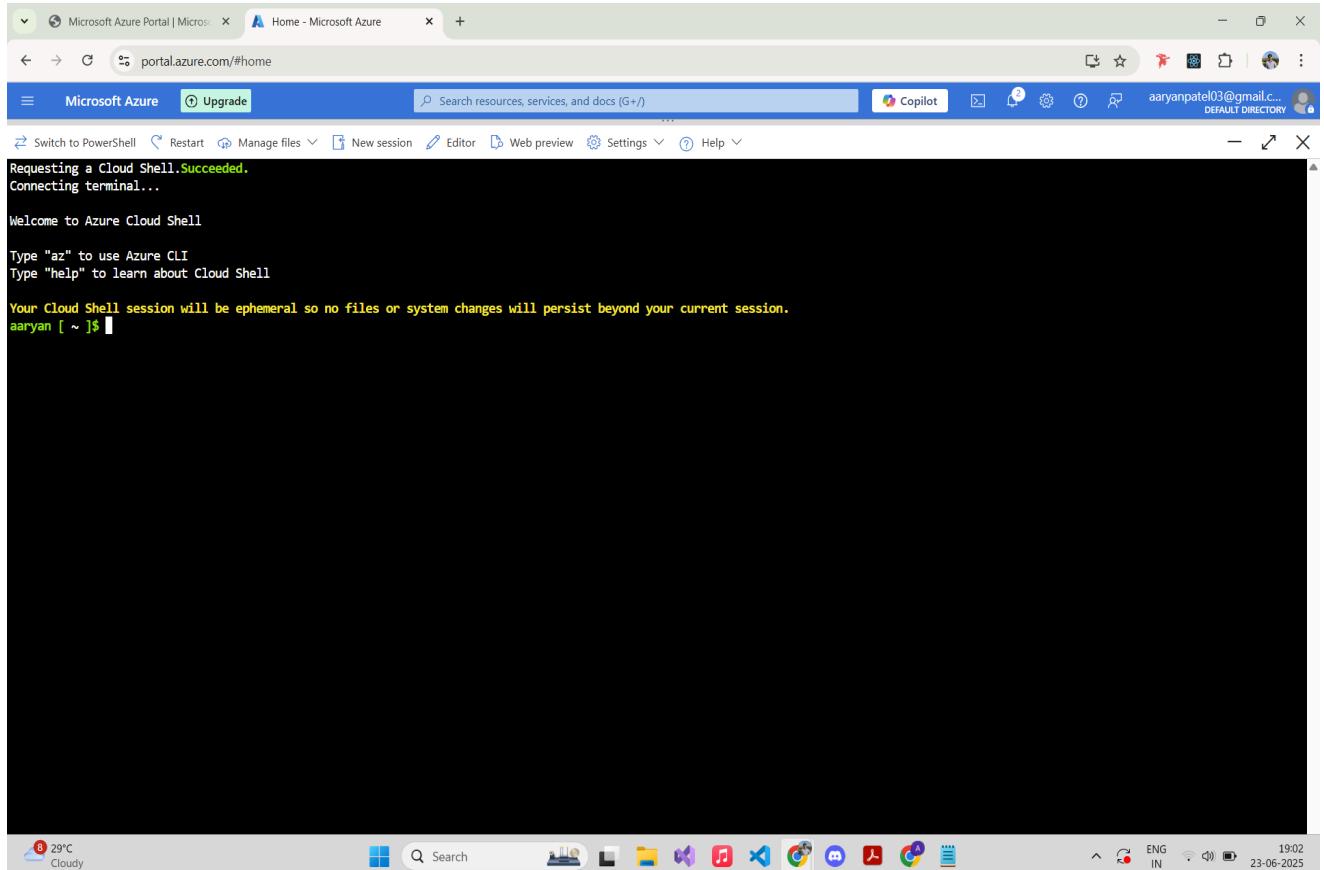
Add or remove favorites by pressing **Ctrl+Shift+F**

Cloudy | 29°C | 18:53 | 23-06-2025

2. Create Virtual machine and Vnet from Azure CLI.

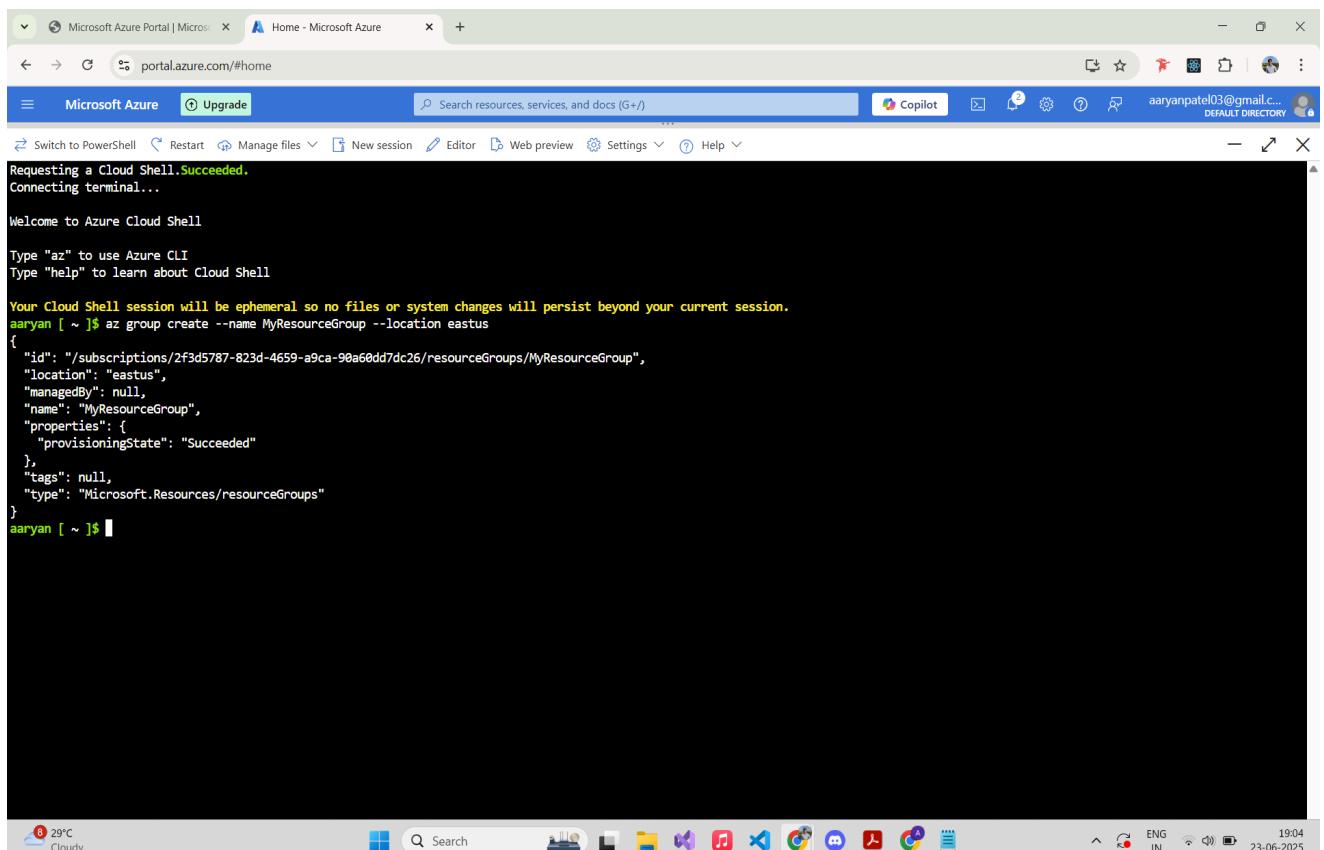
Steps :

1. Create a Resource Group



The screenshot shows the Microsoft Azure Cloud Shell interface. At the top, it says "Requesting a Cloud Shell. Succeeded." followed by "Connecting terminal...". Below that, the terminal prompt "aaryan [~]\$ " is visible. The user has run the command "az group create --name MyResourceGroup --location eastus", which has returned a JSON object representing the new resource group. The JSON output includes fields like "id", "location", "managedBy", "name", "properties", and "tags". The system tray at the bottom shows the date as 23-06-2025 and the time as 19:02.

```
aaryan [ ~ ]$ az group create --name MyResourceGroup --location eastus
{
  "id": "/subscriptions/2f3d5787-823d-4659-a9ca-90a60dd7dc26/resourceGroups/MyResourceGroup",
  "location": "eastus",
  "managedBy": null,
  "name": "MyResourceGroup",
  "properties": {
    "provisioningState": "Succeeded"
  },
  "tags": null,
  "type": "Microsoft.Resources/resourceGroups"
}
```



This screenshot is identical to the one above, showing the Microsoft Azure Cloud Shell interface with the same terminal history and JSON output for creating a resource group. The system tray at the bottom shows the date as 23-06-2025 and the time as 19:04.

```
aaryan [ ~ ]$ az group create --name MyResourceGroup --location eastus
{
  "id": "/subscriptions/2f3d5787-823d-4659-a9ca-90a60dd7dc26/resourceGroups/MyResourceGroup",
  "location": "eastus",
  "managedBy": null,
  "name": "MyResourceGroup",
  "properties": {
    "provisioningState": "Succeeded"
  },
  "tags": null,
  "type": "Microsoft.Resources/resourceGroups"
}
```

2. Create a Virtual Network (VNet) and Subnet

The screenshot shows a Microsoft Edge browser window with the Microsoft Azure Portal URL (portal.azure.com/#home) in the address bar. The title bar says "Microsoft Azure" and "Upgrade". The main content area displays a command-line session output:

```
aaryan [ ~ ]$ az network vnet create \
> --resource-group MyResourceGroup \
> --name MyVNet \
> --address-prefix 10.0.0.0/16 \
> --subnet-name MySubnet \
> --subnet-prefix 10.0.1.0/24
{
  "newVNet": {
    "addressSpace": {
      "addressPrefixes": [
        "10.0.0.0/16"
      ]
    },
    "enableDdosProtection": false,
    "etag": "W/"982fae2-71da-4abe-9e38-9fbf8e8a1d02"",
    "id": "/subscriptions/2f3d5787-823d-4659-a9ca-90a60dd7dc26/resourceGroups/MyResourceGroup/providers/Microsoft.Network/virtualNetworks/MyVNet",
    "location": "eastus",
    "name": "MyVNet",
    "privateEndpointVNetPolicies": "Disabled",
    "provisioningState": "Succeeded",
    "resourceGroup": "MyResourceGroup",
    "resourceGuid": "90ec3607-b85a-4456-9b72-fe3a1a1256db",
    "subnets": [
      {
        "addressPrefix": "10.0.1.0/24",
        "delegations": [],
        "etag": "W/"982fae2-71da-4abe-9e38-9fbf8e8a1d02"",
        "id": "/subscriptions/2f3d5787-823d-4659-a9ca-90a60dd7dc26/resourceGroups/MyResourceGroup/providers/Microsoft.Network/virtualNetworks/MyVNet/subnets/MySubnet",
        "name": "MySubnet",
        "privateEndpointNetworkPolicies": "Disabled",
        "privateLinkServiceNetworkPolicies": "Enabled",
        "provisioningState": "Succeeded",
        "resourceGroup": "MyResourceGroup",
        "type": "Microsoft.Network/virtualNetworks/subnets"
      }
    ],
    "type": "Microsoft.Network/virtualNetworks",
    "virtualNetworkPeerings": []
  }
}
```

The status bar at the bottom shows the date as 23-06-2025 and the time as 19:14. The system tray indicates it's 29°C and cloudy.

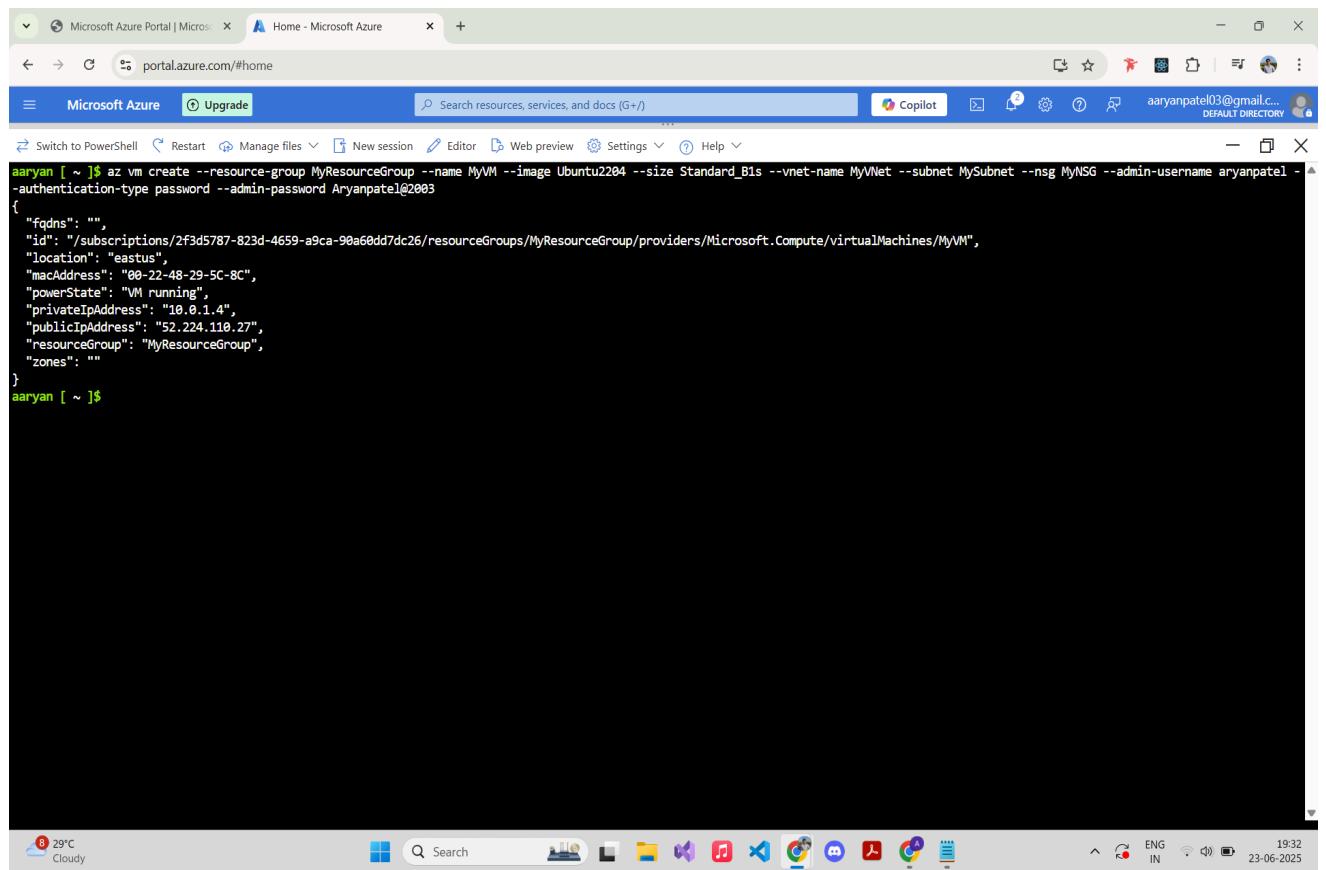
3. Create a Network Security Group (NSG)

The screenshot shows a Microsoft Edge browser window with the Microsoft Azure Portal URL (portal.azure.com/#home) in the address bar. The title bar says "Microsoft Azure" and "Upgrade". The main content area displays a command-line session output:

```
aaryan [ ~ ]$ az network nsg create \
> --resource-group MyResourceGroup \
> --name MyNSG
{
  "NewNSG": {
    "defaultSecurityRules": [
      {
        "access": "Allow",
        "description": "Allow inbound traffic from all VMs in VNET",
        "destinationAddressPrefix": "VirtualNetwork",
        "destinationAddressPrefixes": [],
        "destinationPortRange": "*",
        "destinationPortRanges": [],
        "direction": "Inbound",
        "etag": "W/"d85754ee-bc0e-44ec-bbfd-baab1e730d77"",
        "id": "/subscriptions/2f3d5787-823d-4659-a9ca-90a60dd7dc26/resourceGroups/MyResourceGroup/providers/Microsoft.Network/networkSecurityGroups/MyNSG/defaultSecurityRules/AllowVNetInbound",
        "name": "AllowVNetInbound",
        "priority": 65000,
        "protocol": "*",
        "provisioningState": "Succeeded",
        "resourceGroup": "MyResourceGroup",
        "sourceAddressPrefix": "VirtualNetwork",
        "sourceAddressPrefixes": [],
        "sourcePortRange": "*",
        "sourcePortRanges": [],
        "type": "Microsoft.Network/networkSecurityGroups/defaultSecurityRules"
      },
      {
        "access": "Allow",
        "description": "Allow inbound traffic from azure load balancer",
        "destinationAddressPrefix": "*",
        "destinationAddressPrefixes": [],
        "destinationPortRange": "*",
        "destinationPortRanges": [],
        "direction": "Inbound",
        "etag": "W/"d85754ee-bc0e-44ec-bbfd-baab1e730d77"",
        "id": "/subscriptions/2f3d5787-823d-4659-a9ca-90a60dd7dc26/resourceGroups/MyResourceGroup/providers/Microsoft.Network/networkSecurityGroups/MyNSG/defaultSecurityRules/AllowAzureLoad
    }
  }
}
```

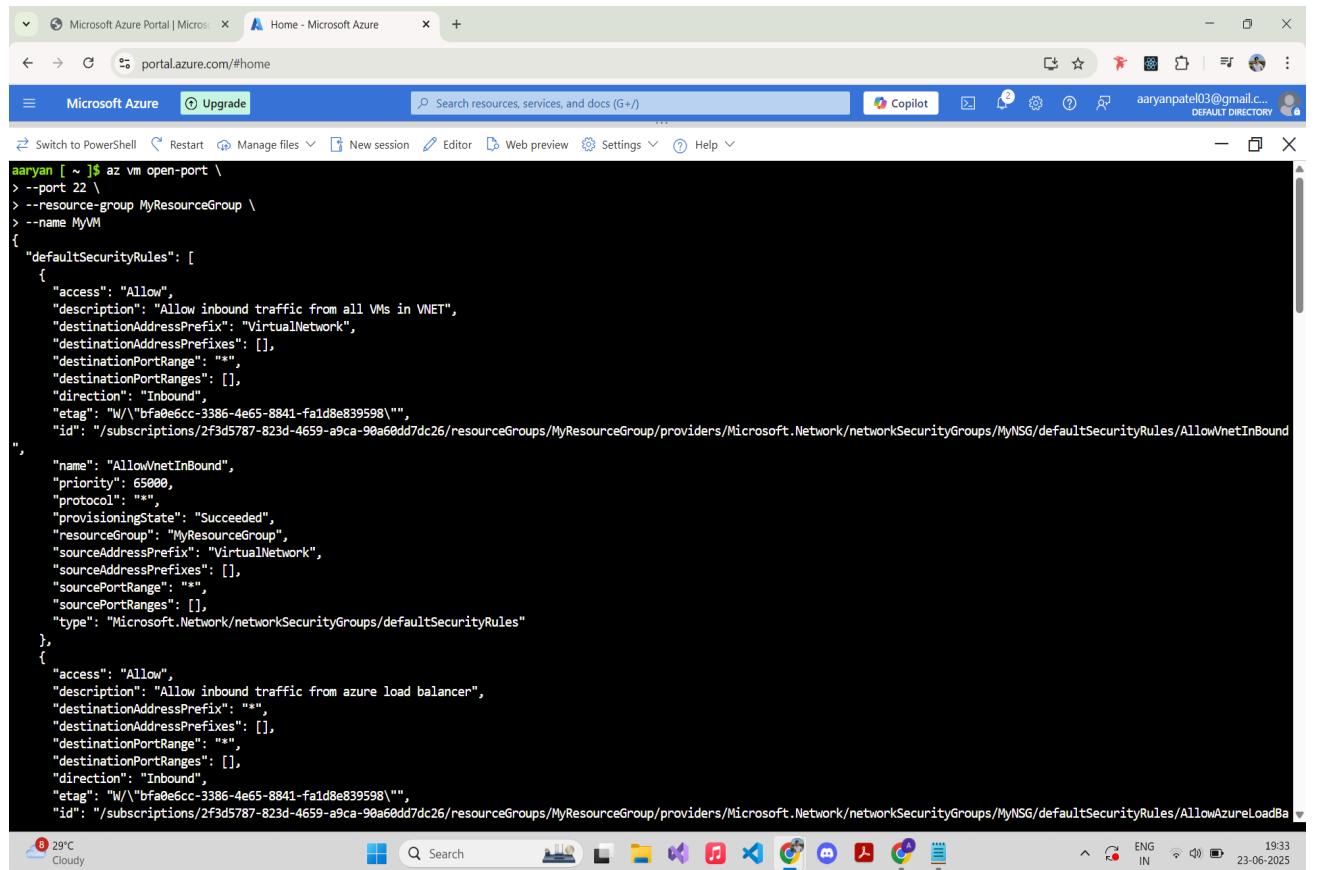
The status bar at the bottom shows the date as 23-06-2025 and the time as 19:19. The system tray indicates it's 29°C and cloudy.

4. Create a Virtual Machine (VM)



```
aaryan [ ~ ]$ az vm create --resource-group MyResourceGroup --name MyVM --image Ubuntu2204 --size Standard_B1s --vnet-name MyVNet --subnet MySubnet --nsg MyNSG --admin-username aryanpatel --authentication-type password --admin-password Aryanpatel@2003
{
  "fqdns": "",
  "id": "/subscriptions/2f3d5787-823d-4659-a9ca-90a60dd7dc26/resourceGroups/MyResourceGroup/providers/Microsoft.Compute/virtualMachines/MyVM",
  "location": "eastus",
  "macAddress": "00-22-48-29-5C-8C",
  "powerState": "VM running",
  "privateIpAddress": "10.0.1.4",
  "publicIpAddress": "52.224.110.27",
  "resourceGroup": "MyResourceGroup",
  "zones": ""
}
aaryan [ ~ ]$
```

5. Open Port 22 for SSH Access



```
aaryan [ ~ ]$ az vm open-port \
> --port 22 \
> --resource-group MyResourceGroup \
> --name MyVM
{
  "defaultSecurityRules": [
    {
      "access": "Allow",
      "description": "Allow inbound traffic from all VMs in VNET",
      "destinationAddressPrefix": "VirtualNetwork",
      "destinationAddressPrefixes": [],
      "destinationPortRange": "*",
      "destinationPortRanges": [],
      "direction": "Inbound",
      "etag": "W/\"bfa0e6cc-3386-4e65-8841-fa1d8e839598\"",
      "id": "/subscriptions/2f3d5787-823d-4659-a9ca-90a60dd7dc26/resourceGroups/MyResourceGroup/providers/Microsoft.Network/networkSecurityGroups/MyNSG/defaultSecurityRules/AllowVnetInBound"
    },
    {
      "name": "AllowVnetInBound",
      "priority": 65000,
      "protocol": "*",
      "provisioningState": "Succeeded",
      "resourceGroup": "MyResourceGroup",
      "sourceAddressPrefix": "virtualNetwork",
      "sourceAddressPrefixes": [],
      "sourcePortRange": "*",
      "sourcePortRanges": [],
      "type": "Microsoft.Network/networkSecurityGroups/defaultSecurityRules"
    },
    {
      "access": "Allow",
      "description": "Allow inbound traffic from azure load balancer",
      "destinationAddressPrefix": "*",
      "destinationAddressPrefixes": [],
      "destinationPortRange": "*",
      "destinationPortRanges": [],
      "direction": "Inbound",
      "etag": "W/\"bfa0e6cc-3386-4e65-8841-fa1d8e839598\"",
      "id": "/subscriptions/2f3d5787-823d-4659-a9ca-90a60dd7dc26/resourceGroups/MyResourceGroup/providers/Microsoft.Network/networkSecurityGroups/MyNSG/defaultSecurityRules/AllowAzureLoadBa"
    }
  ]
}
```

6. Testing the VM

```
aaryan [ ~ ]$ az vm show --resource-group MyResourceGroup --name MyVM -d --query publicIps -o tsv
52.224.110.27
aaryan [ ~ ]$ ssh aaryanpate1@52.224.110.27
The authenticity of host '52.224.110.27 (52.224.110.27)' can't be established.
ED25519 key fingerprint is SHA256:8YK9vgPAIm3/7CBGGDdTgkGuh2k+X2Y80x8LYkf13ok.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '52.224.110.27' (ED25519) to the list of known hosts.
aaryanpate1@52.224.110.27's password:
Permission denied, please try again.
aaryanpate1@52.224.110.27's password:
Permission denied, please try again.
aaryanpate1@52.224.110.27's password:
Welcome to Ubuntu 22.04.5 LTS (GNU/Linux 6.8.0-1029-azure x86_64)

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

System information as of Mon Jun 23 14:08:51 UTC 2025

System load: 0.0 Processes: 105
Usage of /: 5.3% of 28.89GB Users logged in: 0
Memory usage: 29% IPv4 address for eth0: 10.0.1.4
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
```

Cloudy 29°C Search ENG IN 19:38 23-06-2025

```
System information as of Mon Jun 23 14:08:51 UTC 2025

System load: 0.0 Processes: 105
Usage of /: 5.3% of 28.89GB Users logged in: 0
Memory usage: 29% IPv4 address for eth0: 10.0.1.4
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.

aaryanpate1@MyVM:~$ hostname
MyVM
aaryanpate1@MyVM:~$ ls
aaryanpate1@MyVM:~$ mkdir test
aaryanpate1@MyVM:~$ ls
test
aaryanpate1@MyVM:~$
```

Cloudy 29°C Search ENG IN 19:39 23-06-2025

3. Create and assign any policy at subscription level.

Steps :

1. Go to Azure Policy.

The screenshot shows the Microsoft Azure Portal homepage. At the top, there is a search bar with the text "policy". Below the search bar, there are three tabs: "All", "Services (10)", and "Marketplace (31)". The "All" tab is selected. A dropdown menu titled "Services" is open, listing several items under "Policy": "Firewall Policies", "Route Policies (Operator Nexus)", and "DNS Security Policies". To the right of the search bar, there is a "Copilot" button and a user profile icon. On the left side of the page, there is a sidebar with sections for "Azure services" (including "Create a resource" and "Subscriptions"), "Resources" (Recent and Favorite), and "Documentation". On the right side, there are cards for "Explore support resources", "Quickstart Center", "Azure AI Foundry", and "More services". The bottom of the screen shows the Windows taskbar with various pinned icons.

The screenshot shows the "Policy" blade in the Microsoft Azure Portal. The top navigation bar has "Upgrade" and a search bar. The main content area is titled "Overview" and shows the following information:

- Scope:** Azure subscription 1
- Overall resource compliance:** 33% (2 out of 6)
- Resources by compliance state:** A donut chart showing 2 - Compliant (green) and 4 - Non-compliant (red). The non-compliant count is 6.
- Non-compliant initiatives:** 1 out of 1
- Non-compliant policies:** 37 out of 225
- LEARN MORE:** Links to "Learn about Policy" and "Onboarding tutorial".

Below this, there is a table with columns: Name, Scope, Compliance state, Resource compli..., Non-compliant resources, and Non-compliant policies. One row is visible for "ASC Default (subscription: 2f3d578...)" which is Non-compliant with 33% compliance (2 out of 6) and 4 non-compliant resources.

At the bottom, there is a section titled "ASSIGNMENTS BY COMPLIANCE (LAST 7 DAYS)" with a bar chart showing assignment counts for different compliance levels (1, 2, 3, 4, 5, 6).

2. Choose a Built-in Policy (e.g., "Allowed locations")

Microsoft Azure | Policy - Microsoft Azure

Search resources, services, and docs (G+)

Home > Policy

Policy | Definitions

Search: Allowed locations

Scope: Azure subscription 1 | Definition type: All definition types | Policy type: All policy types | Category: All categories

Name	Latest versi...	Definition location	Poli...	Type	Definition t...	Category
Allowed locations for resource groups	1.0.0		Builtin	Policy	General	...
Allowed locations	1.0.0		Builtin	Policy	General	...
Azure Cosmos DB allowed locations	1.1.0		Builtin	Policy	Cosmos DB	...

Give feedback

Rain warning In effect

https://portal.azure.com/#blade/Microsoft_Azure_Policy/PolicyDetailReactView/id/%2Fproviders%2FMicrosoft.Authorization%2FpolicyDefinitions%2Fe56962a6-4747-49cd-b67b-bf8b01975c4c/version/1.0.0/scopes/%5B%2Fsubscriptions%2F2f3d5787-823d-4659-a9ca-90a60dd7dc2...

Microsoft Azure | Microsoft | Allowed locations - Microsoft

Search resources, services, and docs (G+)

Home > Policy | Definitions >

Allowed locations

Policy definition

Assign policy | Edit definition | Duplicate definition | Select version (preview) | Delete definition

Essentials

Name	: Allowed locations	Definition location	:
Version (preview)	: 1.0.0	Definition ID	: /providers/Microsoft.Authorization/policyDefinitions/e56962a6-4747-49cd-b67b...
Description	: This policy enables you to restrict the locations your organization can specify whe...	Type	: Built-in
Available Effects	: Deny	Mode	: Indexed
Category	: General		

Definition | Assignments (0) | Parameters (1)

```
1 {  
2   "properties": {  
3     "displayName": "Allowed locations",  
4     "policyType": "BuiltIn",  
5     "mode": "Indexed",  
6     "description": "This policy enables you to restrict the locations your organization can specify when deploying resources. Use to enforce your geo-compliance requirements.",  
7     "metadata": {  
8       "version": "1.0.0",  
9       "category": "General"  
10    },  
11    "version": "1.0.0",  
12    "parameters": {  
13      "listOfAllowedLocations": {  
14        "type": "Array",  
15        "metadata": {  
16          "description": "The list of locations that can be specified when deploying resources.",  
17          "strongType": "location",  
18          "displayName": "Allowed locations"  
19        }  
20      }  
21    }  
22  }  
23 }
```

Give feedback

Rain warning In effect

https://portal.azure.com/#blade/Microsoft_Azure_Policy/PolicyDetailReactView/id/%2Fproviders%2FMicrosoft.Authorization%2FpolicyDefinitions%2Fe56962a6-4747-49cd-b67b-bf8b01975c4c/version/1.0.0/scopes/%5B%2Fsubscriptions%2F2f3d5787-823d-4659-a9ca-90a60dd7dc2...

3. Assign the Policy to Subscription

Scope
Scope *

Basics
Policy definition *
Version (preview) *

Overrides (Expand)

Assignment name *

Description

Policy enforcement Enabled

Previous Next Review + create

Basics Parameters Remediation Non-compliance messages Review + create

Search by parameter name Only show parameters that need input or review

Allowed locations

Filter

All

US

- East US
- South Central US
- West US 2
- West US 3
- Central US
- East US 2 EUAP
- East US 2
- East US STG
- North Central US
- West US
- Central US EUAP
- South Central US STG
- West Central US

Asia Pacific

- Australia East
- Southeast Asia
- Central India
- East Asia
- Indonesia Central

Previous Next Review + create

Microsoft Azure Portal | Microsoft Azure | Assign policy - Microsoft Azure

portal.azure.com/#view/Microsoft_Azure_Policy/CreateEditAssignment.ReactView/isCreateMode~/true/assignMode/Policy/preSelectedDefinitionId/%2Fproviders%2FMicrosoft.Authorization%2FpolicyDefinitions%2Fe56962a6-4747-49cd-b67b-... Copilot

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

Home > Policy | Definitions > Allowed locations > Assign policy ...

Basics Parameters Remediation Non-compliance messages Review + create

Basics

Scope	Azure subscription 1
Exclusions	--
Policy definition	Allowed locations
Assignment name	Allowed locations
Version (preview)	1.0.*
Description	--
Policy enforcement	Default
Assigned by	aaryan patel

Advanced

Resource selectors	No selectors associated with this assignment.
Overrides	No overrides associated with this assignment.

Parameters

Allowed locations	["eastus", "westindia"]
-------------------	-------------------------

Remediation

Create a Managed Identity	No managed identity associated with this assignment.
---------------------------	--

Previous Next Create Give feedback

8 1 cm of rain Saturday Search ENG IN 23-06-2025 19:47

Microsoft Azure Portal | Microsoft Azure | Allowed locations - Microsoft Azure

portal.azure.com/#view/Microsoft_Azure_Policy/PolicyDetail.ReactView/id/%2Fproviders%2FMicrosoft.Authorization%2FpolicyDefinitions%2Fe56962a6-4747-49cd-b67b-... Copilot

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

Home > Policy | Definitions > Allowed locations ...

Policy definition

Assign policy Edit definition Duplicate definition Select version (preview) Delete definition

Essentials

Name	: Allowed locations	Definition location	: --
Version (preview)	: 1.0.0	Definition ID	: /providers/Microsoft.Authorization/policyDefinition...
Description	: This policy enables you to restrict the locations you...	Type	: Built-in
Available Effects	: Deny	Mode	: Indexed
Category	: General		

Definition Assignments (0) Parameters (1)

```
1 {  
2   "properties": {  
3     "displayName": "Allowed locations",  
4     "policyType": "BuiltIn",  
5     "mode": "Indexed",  
6     "description": "This policy enables you to restrict the locations your organization can specify when deplo...",  
7     "metadata": {  
8       "version": "1.0.0",  
9       "category": "General"  
10    },  
11    "version": "1.0.0",  
12    "parameters": {  
13      "listOfAllowedLocations": {  
14        "type": "Array",  
15        "metadata": {  
16          "description": "The list of locations that can be specified when deploying resources.",  
17          "strongType": "location",  
18          "displayName": "Allowed locations"  
19        }  
20      }  
21    }  
22  }  
23 }
```

Notifications

More events in the activity log → Dismiss all

Creating policy assignment succeeded Creating policy assignment 'Allowed locations' in 'Azure subscription 1' was successful. Please note that the assignment takes around 5-15 minutes to take effect. a few seconds ago

Give feedback

8 1 cm of rain Saturday Search ENG IN 23-06-2025 19:47

4. Test the Policy Enforcement.

The screenshot shows the Microsoft Azure Portal with the URL portal.azure.com/#create/Microsoft.WebSite. The page title is "Create Web App". The top navigation bar includes "Microsoft Azure", "Upgrade", "Search resources, services, and docs (G+)", "Copilot", and user information "aaryanpatel03@gmail.com... DEFAULT DIRECTORY". The main content area is titled "Create Web App" with a "Basics" tab selected. It displays the following configuration:

- Subscription:** Azure subscription 1
- Resource Group:** (New) celebal-week3-assignment_group
- Name:** celebal-week3-assignment
- Runtime stack:** Node 22 LTS
- Operating System:** Linux
- Region:** Central US
- Secure unique default hostname:** Enabled
- Publish:** Code

At the bottom, there are "Review + create", "< Previous", and "Next : Database >" buttons. The taskbar at the bottom shows various pinned icons and the date/time "23-06-2025 19:50".

The screenshot shows the Microsoft Azure Portal with the URL portal.azure.com/#create/Microsoft.WebSite. The page title is "Create Web App". The top navigation bar includes "Microsoft Azure", "Upgrade", "Search resources, services, and docs (G+)", "Copilot", and user information "aaryanpatel03@gmail.com... DEFAULT DIRECTORY". The main content area is titled "Create Web App" with a "Summary" step selected. It displays the following summary:

- Web App by Microsoft**
- Basic (B1) sku** (Estimated price - 13.14 USD/Month)
- Basic authentication:** Disabled (Info message: Basic authentication for this app is currently disabled and may impact deployments. Click to learn more.)
- Details:**
 - Subscription: 2f3d5787-823d-4659-a9ca-90a60dd7dc26
 - Resource Group: celebal-week3-assignment_group
 - Name: celebal-week3-assignment
 - Secure unique default hostname: Enabled
 - Publish: Code
 - Runtime stack: Node 22 LTS
- App Service Plan (New):**
 - Name: ASP-celebalweek3assignmentgroup-b040
 - Operating System: Linux
 - Region: Central US
 - SKU: Basic
 - Size: Small
 - ACU: 100 total ACU

At the bottom, there are "Create", "< Previous", "Next >", and "Download a template for automation" buttons. The taskbar at the bottom shows various pinned icons and the date/time "23-06-2025 19:50".

5. Verify Policy Assignment.

Microsoft Azure | Policy - Microsoft Azure

portal.azure.com/#view/Microsoft_Azure_Policy/PolicyMenuBlade/~/Assignments

Microsoft Azure Upgrade

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

Copilot

aaryanpatel03@gmail.c... DEFAULT DIRECTORY

Home > Policy

Policy | Assignments

Search

Assign policy Assign initiative Refresh

Overview Getting started Compliance Remediation Events

Authoring

Definitions Assignments Exemptions

Search Filter by name or ID... Scope : Azure subscription 1 Definition type : All definition types

Total Assignments 2 Initiative Assignments 1 Policy Assignments 1

Assignment name	Scope ↑	Type ↑	...
ASC Default (subscription: 2f3d5787-823d-4659-a9ca-90a60dd7dc26)	Azure subscription 1	Initiative	...
Allowed locations	Azure subscription 1	Policy	...

Edit columns

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

28°C Light rain ENG IN 19:52 23-06-2025

4. Create an Azure key vault and store secrets. Configure access policies for the Key Vault to allow authorized users or applications to manage keys and secrets, retrieve secrets from key vault using azure CLI.

Steps :

1. Create the Azure Key Vault.

The screenshot shows the Microsoft Azure Portal homepage. At the top, there is a search bar with the text "key val". Below the search bar, there are sections for "Services" and "Marketplace". Under "Services", the "Key vaults" section is highlighted, showing options like "Azure Key Vault Managed HSMs", "BitLocker Keys", and "SSH keys". Under "Marketplace", there are links to "Key Vault", "Document Intelligence (form recognizer)", "Azure Key Vault Managed HSM", and "Azure Key Vault solution for Sentinel". On the left, there are sections for "Azure services" (with "Create a resource" and "Key vaults" buttons) and "Resources" (Recent and Favorite). On the right, there is a "Explore support resources" section with icons for App Service plans, Virtual machines, and More services. The bottom of the screen shows the Windows taskbar with various pinned icons.

The screenshot shows the "Create a key vault" wizard in the Microsoft Azure Portal. The current step is "Create a key vault". The "Basics" tab is selected. The "Project details" section asks to select a subscription and resource group. The "Subscription" dropdown is set to "Azure subscription 1" and the "Resource group" dropdown is set to "MyResourceGroup". The "Instance details" section includes fields for "Key vault name" (set to "AaryanKeyVault"), "Region" (set to "East US"), and "Pricing tier" (set to "Standard"). The "Recovery options" section is partially visible. At the bottom, there are "Previous", "Next", and "Review + create" buttons. The bottom of the screen shows the Windows taskbar with various pinned icons.

Microsoft Azure Portal | Microsoft | Create a key vault - Microsoft | portal.azure.com/#create/Microsoft.KeyVault

Microsoft Azure | Upgrade | Search resources, services, and docs (G+) | Copilot | aaryanpatel03@gmail.com | DEFAULT DIRECTORY

Home > Key vaults > Create a key vault

Review + create

View Automation Template

Basics

Subscription	Azure subscription 1
Resource group	MyResourceGroup
Key vault name	AaryanKeyVault
Region	East US
Pricing tier	Standard
Soft-delete	Enabled
Purge protection during retention period	Disabled
Days to retain deleted vaults	90 days

Access configuration

Azure Virtual Machines for deployment	Disabled
Azure Resource Manager for template deployment	Disabled
Azure Disk Encryption for volume encryption	Disabled
Permission model	Azure role-based access control

Networking

Previous Next Create Give feedback

28°C Light rain Search ENG IN 23-06-2025

Microsoft Azure Portal | Microsoft | AaryanKeyVault - Microsoft | portal.azure.com/#view/HubsExtension/DeploymentDetailsBlade/~/overview/id/%2Fsubscriptions%2F2f3d5787-823d-4659-a9ca-90a60dd7dc26%2FresourceGroups%2F...

Microsoft Azure | Upgrade | Search resources, services, and docs (G+) | Copilot | aaryanpatel03@gmail.com | DEFAULT DIRECTORY

Home > AaryanKeyVault | Overview

Deployment

Overview

Your deployment is complete

Deployment name : AaryanKeyVault
Subscription : Azure subscription 1
Resource group : MyResourceGroup

Start time : 6/23/2025, 7:59:13 PM
Correlation ID : 6c10a1c5-4d0e-4edf-b4eb-b56dae6ca022

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

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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 >

Add or remove favorites by pressing Ctrl+Shift+F

28°C Light rain Search ENG IN 23-06-2025

2. Store a Secret in Key Vault.

The screenshot shows the Microsoft Azure Cloud Shell interface. The URL is `portal.azure.com/#@aaryanpatel03@gmail.onmicrosoft.com/resource/subscriptions/2f3d5787-823d-4659-a9ca-90a60dd7dc26/resourceGroups/MyResourceGroup/providers/Microsoft.KeyVault/vaults/AryanKeyVault`. The terminal output shows the command `az keyvault secret set --vault-name AryanKeyVault --name MySecret --value "ThisIsMySecretPin6363"` being run, and the resulting JSON object for the secret 'MySecret'.

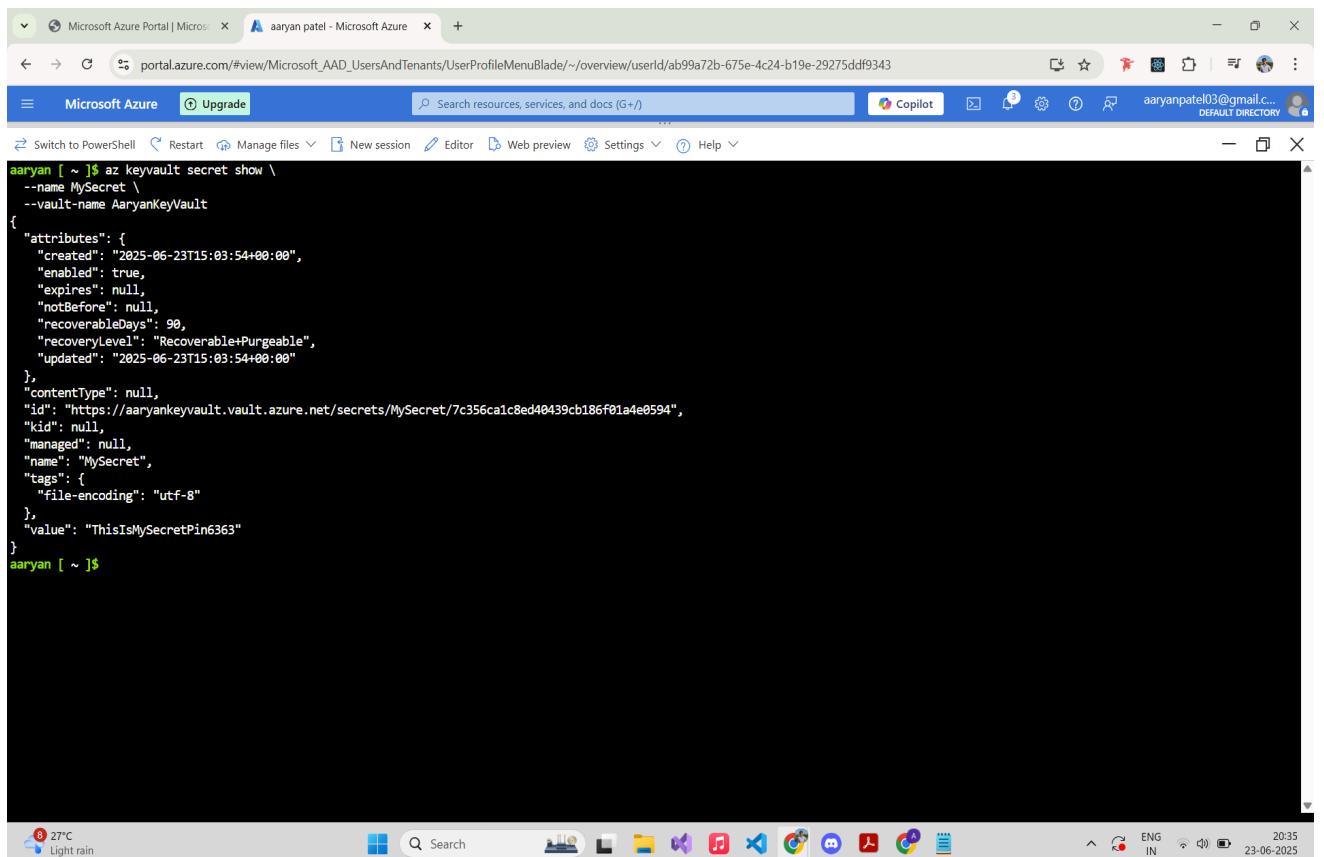
```
Your Cloud Shell session will be ephemeral so no files or system changes will persist beyond your current session.
aaryan [ ~ ]$ az keyvault secret set --vault-name AryanKeyVault --name MySecret --value "ThisIsMySecretPin6363"
{
  "attributes": {
    "created": "2025-06-23T14:48:58+00:00",
    "enabled": true,
    "expires": null,
    "notBefore": null,
    "recoverableDays": 90,
    "recoveryLevel": "Recoverable+Purgeable",
    "updated": "2025-06-23T14:48:58+00:00"
  },
  "contentType": null,
  "id": "https://aaryankeyvault.vault.azure.net/secrets/MySecret/a2832a88af7944e8ac36f0d833e2e041",
  "kid": null,
  "managed": null,
  "name": "MySecret",
  "tags": {
    "file-encoding": "utf-8"
  },
  "value": "ThisIsMySecretPin6363"
}
aaryan [ ~ ]$
```

3. Configure Access Policies.

The screenshot shows the Microsoft Azure Cloud Shell interface. The URL is `portal.azure.com/#view/Microsoft_AAD_UsersAndTenants/UserProfileMenuBlade/~/overview/userId/ab99a72b-675e-4c24-b19e-29275ddf9343`. The terminal output shows the command `az keyvault set-policy --name AryanKeyVault --upn aaryanpatel03@gmail.com#EXT#@aaryanpatel03@gmail.onmicrosoft.com --secret-permissions get list set delete` failing with the message 'Cannot set policies to a vault with '--enable-rbac-authorization' specified'. It then shows the creation of a secret 'MySecret'.

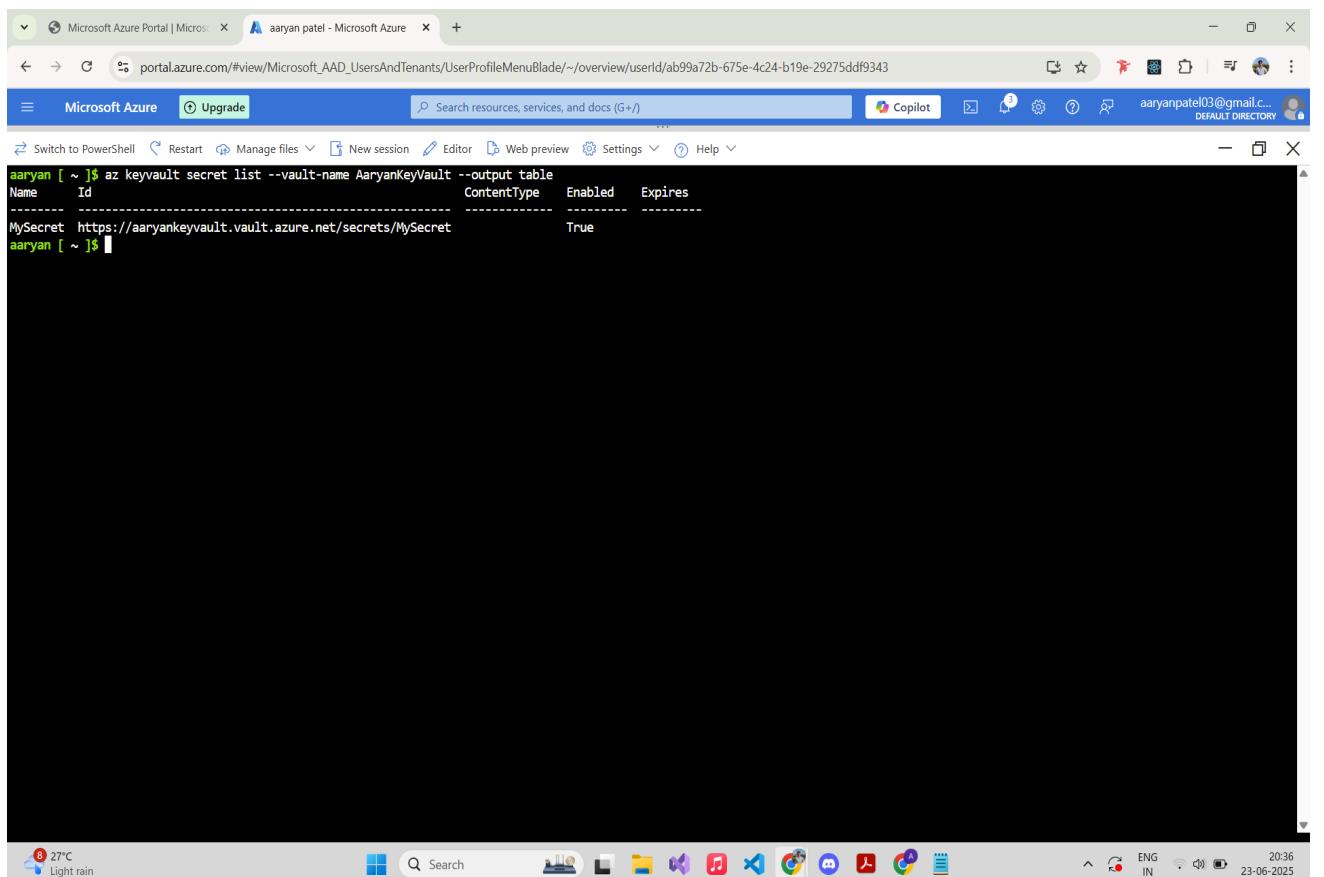
```
"name": "11a1bcc4-45fb-4619-a13a-66470b1ff62a",
"principalId": "ab99a72b-675e-4c24-b19e-29275ddf9343",
"principalName": "aaryanpatel03@gmail.com#EXT#@aaryanpatel03@gmail.onmicrosoft.com",
"principalType": "User",
"resourceGroup": "MyResourceGroup",
"roleDefinitionId": "/subscriptions/2f3d5787-823d-4659-a9ca-90a60dd7dc26/providers/Microsoft.Authorization/roleDefinitions/b86a8fe4-44ce-4948-aee5-eccb2c155cd7",
"roleDefinitionName": "Key Vault Secrets Officer",
"scope": "/subscriptions/2f3d5787-823d-4659-a9ca-90a60dd7dc26/resourceGroups/MyResourceGroup/providers/Microsoft.KeyVault/vaults/AryanKeyVault",
"type": "Microsoft.Authorization/roleAssignments",
"updatedBy": "ab99a72b-675e-4c24-b19e-29275ddf9343",
"updatedOn": "2025-06-23T14:47:42.760732+00:00"
}
aaryan [ ~ ]$ az keyvault set-policy --name AryanKeyVault --upn aaryanpatel03@gmail.com#EXT#@aaryanpatel03@gmail.onmicrosoft.com --secret-permissions get list set delete
Cannot set policies to a vault with '--enable-rbac-authorization' specified
aaryan [ ~ ]$ az keyvault secret set --vault-name AryanKeyVault --name MySecret --value "ThisIsMySecretPin6363"
{
  "attributes": {
    "created": "2025-06-23T15:03:54+00:00",
    "enabled": true,
    "expires": null,
    "notBefore": null,
    "recoverableDays": 90,
    "recoveryLevel": "Recoverable+Purgeable",
    "updated": "2025-06-23T15:03:54+00:00"
  },
  "contentType": null,
  "id": "https://aaryankeyvault.vault.azure.net/secrets/7c356ca1c8ed40439cb186f01a4e0594",
  "kid": null,
  "managed": null,
  "name": "MySecret",
  "tags": {
    "file-encoding": "utf-8"
  },
  "value": "ThisIsMySecretPin6363"
}
aaryan [ ~ ]$ az keyvault set-policy --name AryanKeyVault --upn aaryanpatel03@gmail.com#EXT#@aaryanpatel03@gmail.onmicrosoft.com --secret-permissions get list set delete
Cannot set policies to a vault with '--enable-rbac-authorization' specified
aaryan [ ~ ]$
```

4. Retrieve the Secret Using Azure CLI.



```
aaryan [ ~ ]$ az keyvault secret show \
--name MySecret \
--vault-name AaryanKeyVault
{
  "attributes": {
    "created": "2025-06-23T15:03:54+00:00",
    "enabled": true,
    "expires": null,
    "notBefore": null,
    "recoverableDays": 90,
    "recoveryLevel": "Recoverable+Purgeable",
    "updated": "2025-06-23T15:03:54+00:00"
  },
  "contentType": null,
  "id": "https://aaryankeyvault.vault.azure.net/secrets/MySecret/7c356ca1c8ed40439cb186f01a4e0594",
  "kid": null,
  "managed": null,
  "name": "MySecret",
  "tags": {
    "file-encoding": "utf-8"
  },
  "value": "ThisIsMySecretPin6363"
}
aaryan [ ~ ]$
```

5. List All Secrets in Key Vault.

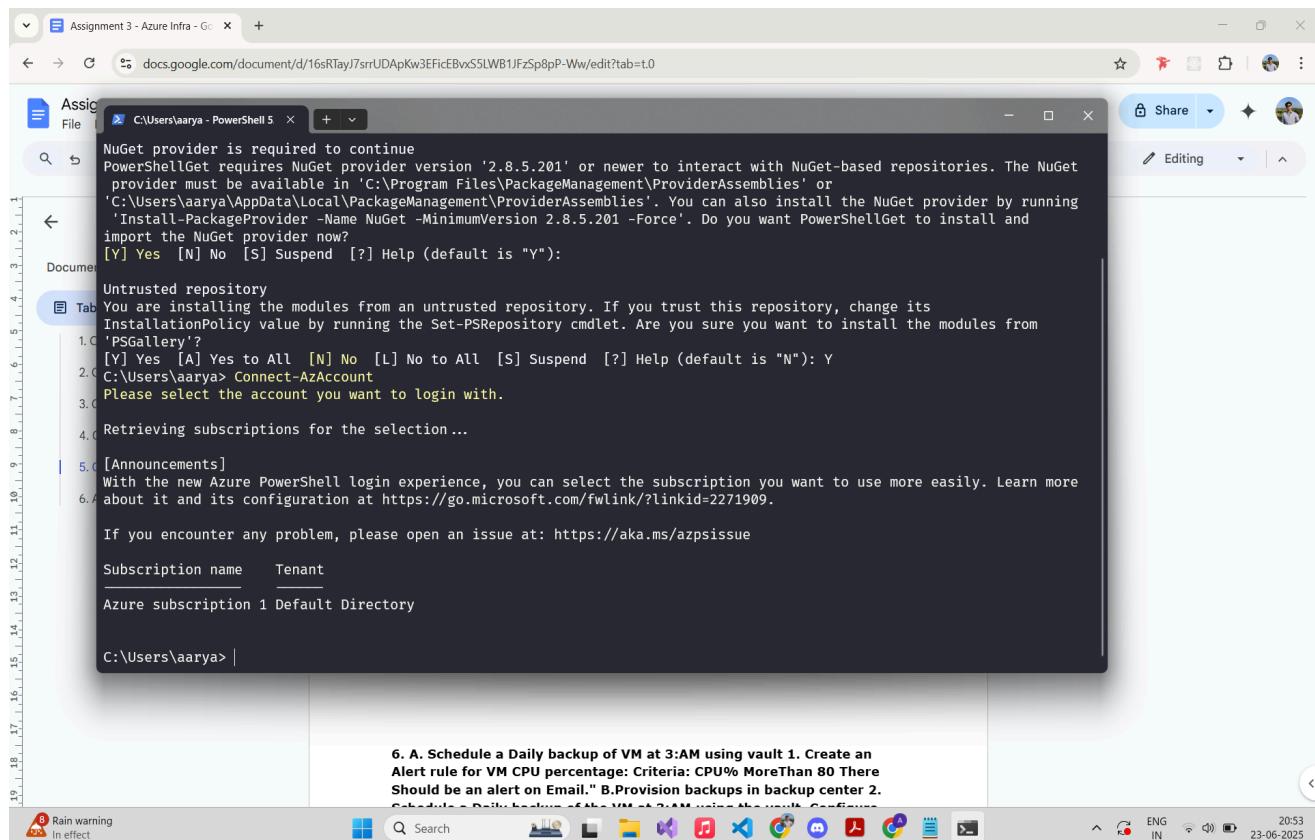
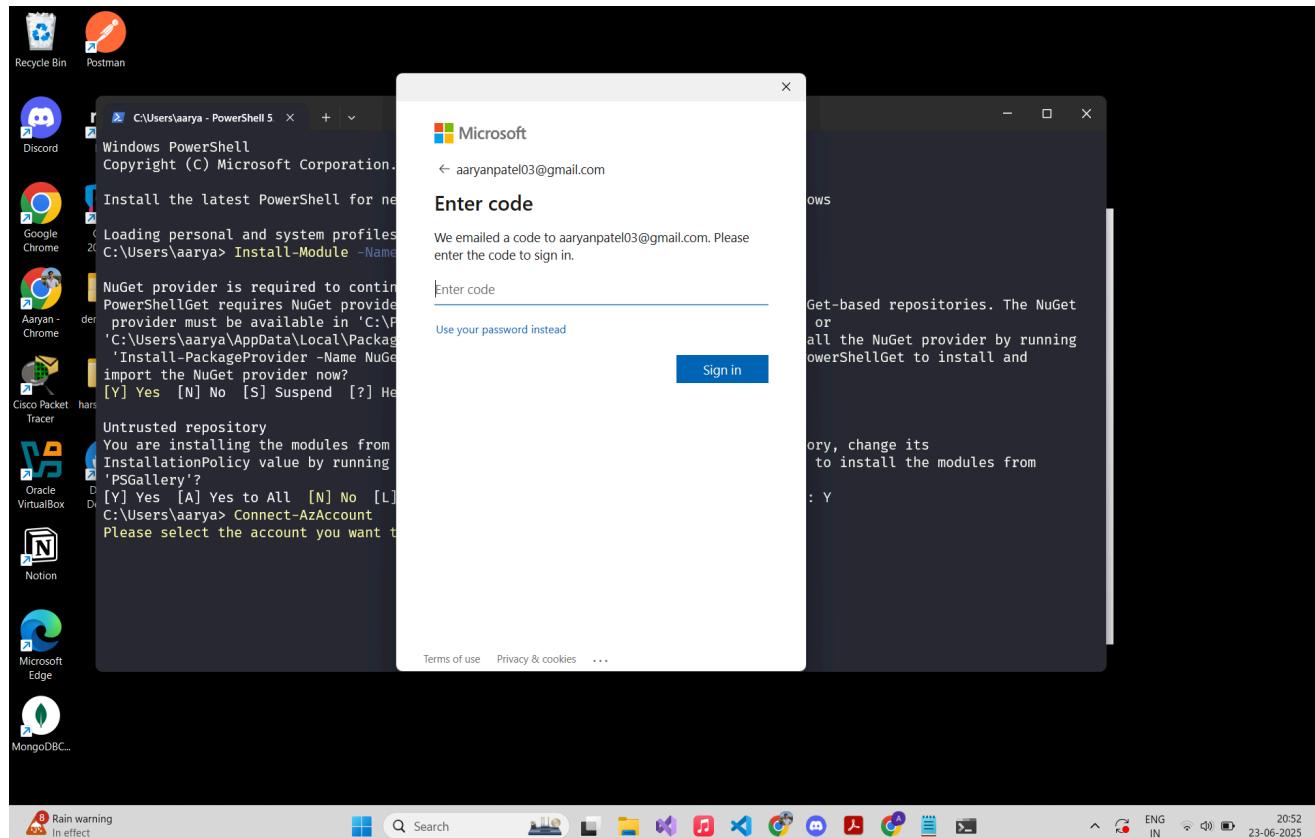


```
aaryan [ ~ ]$ az keyvault secret list --vault-name AaryanKeyVault --output table
Name      Id           ContentType  Enabled   Expires
-----  -----
MySecret https://aaryankeyvault.vault.azure.net/secrets/MySecret          True
aaryan [ ~ ]$
```

5. Create a VM from Powershell.

Steps :

1. Create a Resource Group.



```
C:\Users\aaarya - PowerShell 5 > + ->
C:\Users\aaarya> New-AzResourceGroup -Name MyResourceGroup -Location "EastUS"

Confirm
Provided resource group already exists. Are you sure you want to update it?
[Y] Yes [N] No [S] Suspend [?] Help (default is "Y"):

ResourceGroupName : MyResourceGroup
Location          : eastus
ProvisioningState : Succeeded
Tags              :
ResourceId        : /subscriptions/2f3d5787-823d-4659-a9ca-90a60dd7dc26/resourceGroups/MyResourceGroup

C:\Users\aaarya>
```

2. Create a Virtual Network and Subnet.

The screenshot shows a Google Docs document titled "Assignment 3 - Azure Infra". A PowerShell window is embedded within the document, showing the creation of a virtual network and subnet. The task list on the right indicates steps 1 through 6, with steps 2 and 3 completed.

```
C:\Users\aaarya - PowerShell 5 > + ->
C:\Users\aaarya> $vnet = New-AzVirtualNetwork -Name "MyVNet2" `>> -ResourceGroupName "MyResourceGroup" `>> -Location "EastUS" `>> -AddressPrefix "10.0.0.0/16" `>> -Subnet $subnetConfig
C:\Users\aaarya>
```

Task List:

1. Create a Resource Group
2. Create a Virtual Network and Subnet.
3. Create a Public IP Address
4. Create a Network Security Group (NSG) and Rule

Bottom status bar:

- Light rain At night
- ENG IN
- 20:57
- 23-06-2025

3. Create a Public IP Address

A screenshot of a Windows desktop. In the center is a PowerShell window titled 'C:\Users\aaarya - PowerShell 5' with the command:

```
C:\Users\aaarya> $pip = New-AzPublicIpAddress -Name "MyPublicIP" `>> -ResourceGroupName "MyResourceGroup" `>> -Location "EastUS" `>> -AllocationMethod Static
```

The PowerShell window has a scroll bar on the left. Below the window is a list of numbered steps from 1 to 28. Steps 4 through 6 are highlighted in a white box with a black border:

- 4. Create a Network Security Group (NSG) and Rule
- 5. Create a Network Interface (NIC)
- 6. Create the Virtual Machine

The desktop taskbar at the bottom shows various icons, including a weather icon for 'Light rain At night'. The system tray shows the date as 23-06-2025 and the time as 20:58.

4. Create a Network Security Group (NSG) and Rule

A screenshot of a Windows desktop. In the center is a PowerShell window titled 'C:\Users\aaarya - PowerShell 5' with the command:

```
C:\Users\aaarya> $nsgrule = New-AzNetworkSecurityRuleConfig -Name "AllowRDP" `>> -Protocol "TCP" `>> -SourcePortRange "*" `>> -DestinationPortRange "3389" `>> -Access "Allow" `>> -Priority 1000 `>> -Direction Inbound `>> -SourceAddressPrefix "*" `>> -DestinationAddressPrefix "*" `>> -SecurityRules $nsgRule
```

The PowerShell window has a scroll bar on the left. Below the window is a list of numbered steps from 1 to 28. Step 5 is highlighted in a white box with a black border:

- 5. Create a Network Interface (NIC)

The desktop taskbar at the bottom shows various icons, including a weather icon for 'Light rain Tomorrow'. The system tray shows the date as 23-06-2025 and the time as 20:59.

5. Create a Network Interface (NIC)

```
C:\Users\aaarya> $nic = New-AzNetworkInterface -Name "MyNIC" `>> -ResourceGroupName "MyResourceGroup" `>> -Location "EastUS" `>> -SubnetId $vnet.Subnets[0].Id `>> -PublicIpAddressId $pip.Id `>> -NetworkSecurityGroupId $nsg.Id
C:\Users\aaarya>
C:\Users\aaarya> |
```

6. Create the Virtual Machine

7. Get Public IP and Test Connection

6. Create the Virtual Machine

```
C:\Users\aaarya> $vmConfig = New-AzVMConfig -VMName "MyVM" -VMSize "Standard_B1s"
C:\Users\aaarya> $vmConfig = Set-AzVMOperatingSystem -VM $vmConfig -Linux -ComputerName "MyVM" `>> -Credential (Get-Credential) -DisablePasswordAuthentication $false
cmdlet Get-Credential at command pipeline position 1
Supply values for the following parameters:
Credential
C:\Users\aaarya> $vmConfig = Set-AzVMSourceImage -VM $vmConfig -PublisherName "Canonical" `>> -Offer "UbuntuServer" -Skus "18.04-LTS" -Version "latest"
C:\Users\aaarya> $vmConfig = Add-AzVMNetworkInterface -VM $vmConfig -Id $nic.Id
C:\Users\aaarya> New-AzVM -ResourceGroupName "MyResourceGroup" -Location "EastUS" -VM $vmConfig
1. WARNING: Upcoming breaking changes in the cmdlet 'New-AzVM':
The default VM size will change from 'Standard_D2s_v3' to 'Standard_D2s_v5'.
2. Consider this change will take effect on '01-11-2025'.
   - This change is expected to take effect in Az version : '15.0.0'
   - The change is expected to take effect in Az.Compute version : '11.0.0'
Note : Go to https://aka.ms/azps-changewarnings for steps to suppress this breaking change warning, and other information on breaking changes in Azure PowerShell.
3. WARNING: Since there is no standard storage account in the same region as the VM, new standard storage account, azuremyresomyvm062321020, is created for boot diagnostics.
4. Consider upgrading security for your workloads using Azure Trusted Launch VMs. To know more about Trusted Launch, please visit https://aka.ms/TrustedLaunch
New-AzVM : Changing property 'securityProfile.securityType' is not allowed.
 ErrorCode: PropertyChangeNotAllowed
 ErrorMessage: Changing property 'securityProfile.securityType' is not allowed.
 ErrorTarget: securityProfile.securityType
 StatusCode: 409
 ReasonPhrase:
 OperationID : 0d2b7fe4-22d5-4888-b2db-9ff2a8c7a3cc
At line:1 char:1
```

6. A. Schedule a Daily backup of VM at 3:AM using vault 1. Create an Alert rule for VM CPU percentage: Criteria: CPU% MoreThan 80 There Should be an alert on Email.

6. B. Provision backups in backup center 2. Schedule a Daily backup of the VM at 3:AM using the vault. Configure

7. Get Public IP and Test Connection.

A screenshot of a Windows desktop environment. In the center, a PowerShell window titled "C:\Users\aaarya - PowerShell 5" is open, displaying the command "Get-AzPublicIpAddress -Name "MyPublicIP" -ResourceGroupName "MyResourceGroup" | Select IpAddress" and its output, which is the IP address 4.157.253.120. Below the command, there is a snippet of code starting with "Document C:\Users\aaarya> ssh aryanpatel@4.157.253.120". The taskbar at the bottom shows various pinned icons, including Microsoft Edge, File Explorer, Task View, and others. The system tray indicates it's 28°C and cloudy. A Google Docs document titled "Assignment 3 - Azure Infra - Gc" is visible in the background.

```
C:\Users\aaarya> Get-AzPublicIpAddress -Name "MyPublicIP" -ResourceGroupName "MyResourceGroup" | Select IpAddress
IpAddress
4.157.253.120

Document C:\Users\aaarya> ssh aryanpatel@4.157.253.120
ssh: connect to host 4.157.253.120 port 22: Connection timed out
C:\Users\aaarya> ssh aryanpatel@4.157.253.120

1. C
2. C
3. C
4. C
5. C
6. A
```

6. A. Schedule a Daily backup of VM at 3:AM using vault 1. Create an Alert rule for VM CPU percentage: Criteria: CPU% MoreThan 80 There Should be an alert on Email." B.Provision backups in backup center 2. Schedule a Daily backup of the VM at 3:AM using the vault. Configure Retention period in backup policy and retain an old backup.

6A. Schedule a Daily backup of the VM at 3:00 AM using vault 1. Create an Alert rule for VM CPU percentage: Criteria: CPU% MoreThan 80 There Should be an alert on Email."

Steps :

1. Create a Recovery Services Vault

The screenshot shows the Microsoft Azure Portal home page. At the top, there is a search bar with the text "Recovery Services Vault". Below the search bar, there are several service links: "Recovery Services vaults", "Backup vaults", "Business Continuity Center", and "App Services". On the right side, there is a section titled "Explore support resources" with a blue icon. At the bottom, there is a "Recent" section listing "AryanKeyVault" (Key vault) and "MyResourceGroup" (Resource group). The status bar at the bottom indicates it's 28°C Cloudy, the date is 23-06-2025, and the time is 21:13.

The screenshot shows the "Recovery Services vaults" blade in the Microsoft Azure Portal. The top navigation bar has "Recovery Services vaults" selected. The main content area displays a message: "No recovery services vaults to display" with a "Create" button. Below this, there are links to "Learn more about Backup" and "Learn more about Site Recovery". The status bar at the bottom indicates it's 28°C Cloudy, the date is 23-06-2025, and the time is 21:13.

Microsoft Azure Portal | Microsoft Recovery Services vaults > Create Recovery Services vault

Project Details
Select the subscription and the resource group in which you want to create the vault.

Subscription * Resource group * [Create new](#)

Instance Details
Vault name * Region *

💡 Cross Subscription Restore is enabled by default for all vaults. Visit vault 'Properties' to disable the same. [Learn more](#).

[Review + create](#) [Next: Redundancy](#) [Feedback](#)

Cloudy 28°C Search ENG IN 23-06-2025

Microsoft Azure Portal | Microsoft Recovery Services vaults > Create Recovery Services vault

Review + create

Summary

Subscription	Azure subscription 1
Resource group	MyResourceGroup
Vault name	Vault1
Region	East US

Redundancy

Backup Storage Redundancy	Geo-redundant
Cross Region Restore	Disable

Vault properties

Immutability	Disabled
--------------	----------

Networking

Connectivity method	Allow public access from all networks
---------------------	---------------------------------------

[Create](#) [Previous: Tags](#) [Feedback](#) Download a template for automation

Cloudy 28°C Search ENG IN 23-06-2025

Microsoft Azure Portal | Microsoft Recovery Services V2 - Microsoft.RecoveryServicesV2-1750693495724 | Overview

Deployment succeeded
Deployment 'Microsoft.RecoveryServicesV2-1750693495724' to resource group 'MyResourceGroup' was successful.

Go to resource | Pin to dashboard

Overview Deployment

Search | Delete | Cancel | Redeploy | Download | Refresh

Your deployment is complete

Deployment name : Microsoft.RecoveryServicesV2-1750693495724
Subscription : Azure subscription 1
Resource group : MyResourceGroup

Start time : 6/23/2025, 9:15:33 PM
Correlation ID : 71f7152b-ed6d-4e7b-83f4-f69e7a275a21

Deployment details

Next steps

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
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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 >

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Search | File | Home | Insert | Page Layout | References | Mailings | Review | View | Developer | Page Tools | Add-ins | Tell me what you want to do | Help

ENG IN 23-06-2025 21:16

2. Register the VM for Backup.

Vault1 - Microsoft Azure

Microsoft Azure | portal.azure.com

Search resources, services, and docs (G+)

Copilot

aaryanpatel03@gmail.com

DEFAULT DIRECTORY

Home > Vault1

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Resource visualizer

Settings

Getting started

Protected items

Manage

Monitoring

Automation

Help

Backup

Site Recovery

Monitoring

Backup Alerts (last 24 hours)

Critical	0
Warning	0

Backup Jobs

In progress	0
Failed	0

Backup Pre-Check Status (Azure VMs)

Critical: 0

Warning: 0

Total: 0

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Usage

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Search

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Backup Goal - Microsoft Azure

Microsoft Azure | portal.azure.com

Search resources, services, and docs (G+)

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aaryanpatel03@gmail.com

DEFAULT DIRECTORY

Home > Vault1

Backup Goal

The storage replication is set to Geo-Redundant. This option cannot be changed later. Before proceeding further, click here.

Where is your workload running?

Azure

What do you want to backup?

Virtual machine

Step: Configure Backup

Backup

Give feedback

Help improve this page

Cloudy 28°C

Search

ENG IN 21:17 23-06-2025

Microsoft Azure Portal | Microsoft Azure | Select virtual machines - Microsoft Azure

portal.azure.com/#view/Microsoft_Azure_DataProtection/V1EnablelaasVMBackupBlade/_provisioningContext~/%7B"initialValues"%3A%7B"subscriptionsIds"%3A%5B"2f3d5787-... Copilot

Microsoft Azure Upgrade Search resources, services, and docs (G+) aaryanpatel03@gmail.com DEFAULT DIRECTORY

Home > Vault1 > Backup Goal > Configure backup ...

Vault1

Support for Trusted Launch Azure VM
Support for VMs with Ultra Disks and Premium SSD v2

Backup policy * EnhancedPolicy Create a new policy

Protecting a VM with enhanced policy can incur additional snapshot charges. Please note that once you enable with enhanced policy, changing to standard policy type is not possible. [Learn more.](#)

Policy details

Full backup

Backup frequency Every 4 hour(s) starting 8:00 AM UTC for 12 Hour(s)

Instant restore Retain instant recovery snapshot(s) for 2 day(s)

Retention of daily backup point Retain backup taken every day for 30 Day(s)

Consistency type Application or file-system consistent

Virtual machines

Name	Resource group
No virtual machines selected.	

Add

Selective disk backup option allows you to include or exclude specific data disks based on their LUN numbers. OS Disk is not supported. Know more about Selective Disk Backup feature, its limitation and pricing. [Learn more.](#)

Enable backup Download a template for automation

OK Cancel Give feedback

Cloudy 28°C ENG IN 23-06-2025

Microsoft Azure Portal | Microsoft Azure | ConfigureProtection-1750693748635 - Microsoft Azure

portal.azure.com/#view/HubsExtension/DeploymentDetailsBlade/~/overview/id/%2Fsubscriptions%2F2f3d5787-823d-4659-a9ca-90a60dd7dc26%2FresourceGroups%2FMyRes... Copilot

Microsoft Azure Upgrade Search resources, services, and docs (G+) aaryanpatel03@gmail.com DEFAULT DIRECTORY

Home > ConfigureProtection-1750693748635 | Overview

Deployment

Search Delete Cancel Redeploy Download Refresh

Deployment succeeded Deployment 'ConfigureProtection-1750693748635' to resource group 'MyResourceGroup' was successful.

Go to resource Go to resource group

Overview

Your deployment is complete

Deployment name : ConfigureProtection-1750693748635 Start time : 6/23/2025, 9:19:13 PM

Subscription : Azure subscription 1 Correlation ID : f76539f1-cb6d-49e8-bcdf-e720ba0adc1b

Resource group : MyResourceGroup

Deployment details

Next steps

Go to resource

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 >

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3. Create a Backup Policy (Scheduled at 3:00 AM)

The screenshot shows the Microsoft Azure Portal interface for a Recovery Services vault named 'Vault1'. The left sidebar is open, showing various management options like Activity log, Access control (IAM), Tags, Diagnose and solve problems, Resource visualizer, Favorites, and Backup policies (which is currently selected). The main content area is titled 'Monitoring' and includes two sections: 'Backup Alerts (last 24 hours)' and 'Backup Pre-Check Status (Azure VMs)'. The 'Backup Alerts' section shows 0 Critical and 0 Warning alerts. The 'Backup Pre-Check Status' section shows 0 Critical and 0 Warning errors for Azure VMs. The top navigation bar includes links for Backup, Enable Site Recovery, Update Vault Security, Delete, Refresh, and Feedback.

The screenshot shows the 'Create policy - Microsoft Azure' blade. Under 'Policy sub type', 'Enhanced' is selected. The blade includes sections for 'Enhanced protection', 'Backup schedule' (Frequency: Daily, Time: 3:00 AM, Timezone: UTC), 'Instant restore' (Retain instant recovery snapshot(s) for 30 days), and 'Retention range' (checkbox checked). At the bottom is a 'Create' button. The top navigation bar includes links for Upgrade, Search, Copilot, and other Azure services.

Microsoft Azure Portal | Microsoft Azure - Vault1 - Microsoft Azure

portal.azure.com/#@aaryanpatel03@gmail.onmicrosoft.com/resource/subscriptions/2f3d5787-823d-4659-a9ca-90a60dd7dc26/resourceGroups/MyResourceGroup/providers/Microsoft/Backup/vaults/Vault1

Microsoft Azure Upgrade Search resources, services, and docs (G+) Copilot Home > Vault1 Vault1 | Backup items Recovery Services vault

Search Refresh Feedback

Try our new Business Continuity Center for at scale BCDR management of your resources protected across Azure Backup and Site Recovery.

Primary Region Secondary Region

BACKUP MANAGEMENT TYPE	BACKUP ITEM COUNT
Azure Virtual Machine	1
Azure Backup Agent	0
Azure Backup Server	0
DPM	0
Azure Storage (Azure Files)	0
SQL Database in Azure VM	0
SAP HANA in Azure VM	0
SQL Server in Azure VM (Snapshot backup)(Preview)	0
SAP ASE (Sybase) in Azure VM	0

Add or remove favorites by pressing Ctrl+Shift+F

Cloudy 28°C ENG IN 23-06-2025

Microsoft Azure Portal | Microsoft Azure - Change Backup Policy - Microsoft Azure

portal.azure.com/#view/Microsoft_Azure_DataProtection/1ProtectedItemAzurelaasVMDashboardBlade/protectedItemId/%2Fsubscriptions%2F2f3d5787-823d-4659-a9ca-90a...

Microsoft Azure Upgrade Search resources, services, and docs (G+) Copilot aaryanpatel03@gmail.com DEFAULT DIRECTORY

Home > Vault1 | Backup items > Backup Items (Azure Virtual Machine) >

MyVM Backup Item

Backup now Restore VM File Recovery Stop backup Resume backup Delete backup data Restore to Secondary Region

Try our new Business Continuity Center for at scale BCDR management of your resources protected across Azure Backup and Site Recovery. →

Essentials

Recovery services vault : Vault1
Subscription (move) : Azure subscription_1
Subscription ID : 2f3d5787-823d-4659-a9ca-90a60dd7dc26
Alerts (in last 24 hours) : View alerts
Jobs (in last 24 hours) : View jobs

Backup Pre-Check : ✓ P
Last backup status : ⚠ V
Backup policy : Enhanced
Oldest restore point : -
Included disk(s) : All disk(s)

Policy subtype : Enhanced
Enhanced policy cannot be changed to standard policy.

Backup policy * : DailyBackup3AM

Policy details

Full backup : ✓ P
Backup frequency : Daily at 3:00 AM UTC
Instant restore : Retain instant recovery snapshot(s) for 7 day(s)
Retention of daily backup point : Retain backup taken every day at 3:00 AM for 30 Day(s)

Consistency type : Application or file-system consistent

Change Cancel Give feedback

Cloudy 26°C ENG IN 23-06-2025

4. Create CPU% Alert Rule (CPU > 80%).

The screenshot shows the Microsoft Azure Portal interface for a virtual machine named 'MyVM'. The top navigation bar includes tabs for 'Microsoft Azure' and 'Copilot', and a search bar. A message box at the top right indicates 'Modifying protection' has been successful. The left sidebar contains a tree view of resources under 'MyResourceGroup', including 'Access control (IAM)', 'Tags', 'Diagnose and solve problems', 'Resource visualizer', and various monitoring and operational sections like 'Connect', 'Networking', 'Settings', 'Availability + scale', 'Security', 'Backup + disaster recovery', 'Operations', 'Monitoring', 'Insights', 'Alerts', 'Metrics', 'Diagnostic settings', 'Logs', 'Workbooks', 'Automation', and 'Help'. The main content area displays the VM's configuration details under the 'Essentials' tab, which lists the resource group (MyResourceGroup), status (Running), location (East US), subscription (Azure subscription 1), and subscription ID (2f3d5787-823d-4659-a9ca-90a60dd7dc26). It also shows the operating system (Linux ubuntu 22.04), size (Standard B1s), public IP address (52.224.110.27), virtual network/subnet (MyVNet/MySubnet), DNS name (Not configured), health state (-), and time created (6/23/2025, 2:01 PM UTC). Below this, there is a 'Tags' section with a link to 'Add tags'. The 'Properties' tab is selected, showing detailed information for the 'Virtual machine' and 'Networking' sections. The 'Virtual machine' properties include computer name (MyVM), operating system (Linux ubuntu 22.04), VM generation (V2), VM architecture (x64), agent status (Ready), agent version (2.13.1.1), and hibernation (Disabled). The 'Networking' properties include public and private IP addresses, virtual network/subnet (MyVNet/MySubnet), and DNS name (Configure). A 'Size' section is also present. At the bottom, a 'Rain warning' is shown as 'In effect'. The bottom navigation bar includes icons for 'Search', 'Copilot', and 'CLI / PS'.

Microsoft Azure | MyVM - Microsoft Azure

portal.azure.com/#@aaryanpatel03@gmail.onmicrosoft.com/resource/subscriptions/2f3d5787-823d-4659-a9ca-90a60dd7dc26/resourceGroups/MyResourceGroup/providers/Mi... Copilot

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

aaryanpatel03@gmail.c... DEFAULT DIRECTORY

Home > MyResourceGroup > MyVM

MyVM | Alerts

Virtual machine

Search

Access control (IAM)

Tags

Diagnose and solve problems

Resource visualizer

Connect

Networking

Settings

Availability + scale

Security

Backup + disaster recovery

Operations

Monitoring

Insights

Alerts

Metrics

Diagnostic settings

Logs

Workbooks

Automation

Help

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

View as timeline (preview) Create Set up recommended alerts Alert rules Action groups Alert processing rules Change user response Actions ...

Alert rule

Action group

Alert processing rule

Set up recommended alert rules

Add commonly-used alert rules for resources like this to get notified on important events happening on this resource.

View + set up or Create custom alert rule

Rain warning In effect ENG IN 21:30 23-06-2025

Microsoft Azure Portal | Microsoft | Create an alert rule - Microsoft | portal.azure.com/#view/Microsoft_Azure_Monitoring/CreateAlertRuleBlade/scopes~/%5B%2Fsubscriptions%62f2f3d5787-823d-4659-a9ca-90a60dd7dc26%2FresourceGroups... | Copilot | Search resources, services, and docs (G+) | aaryanpatel03@gmail.com... | DEFAULT DIRECTORY

Home > MyResourceGroup > MyVM | Alerts > Create an alert rule ...

Scope Condition Actions Details Tags Review + create

Configure when the alert rule should trigger by selecting a signal and defining its logic.

Signal name * ⓘ Percentage CPU ⓘ See all signals

Alert logic

We have set the condition configuration automatically based on popular settings for this metric. Please review and make changes as needed.

Threshold type ⓘ Static ⚡ Dynamic

Aggregation type ⓘ Average

Value is ⓘ Greater than

Threshold * ⓘ 80 %

When to evaluate

Check every ⓘ 1 minute

Lookback period ⓘ 5 minutes

Preview \$0.10 USD/month

Whenever the average Percentage CPU is greater than 80%

Preview time range: Over the last 6 hours Time series: Aggregate

90
80
70
60
50
40
30 Error retrieving data.
For more information, please visit https://aka.ms/metrictroubleshoot
20
10
0

4 PM 5 PM 6 PM 7 PM 8 PM UTC+05:30

Percentage CPU (Avg), myvm

Review + create Previous Next: Actions >

Microsoft Azure Portal | Microsoft | Use quick actions (preview) - Microsoft | portal.azure.com/#view/Microsoft_Azure_Monitoring/CreateAlertRuleBlade/scopes~/%5B%2Fsubscriptions%62f2f3d5787-823d-4659-a9ca-90a60dd7dc26%2FresourceGroups... | Copilot | Search resources, services, and docs (G+) | aaryanpatel03@gmail.com... | DEFAULT DIRECTORY

Home > MyResourceGroup > MyVM | Alerts > Create an alert rule ...

Scope Condition Actions Details Tags Review + create

An action group is a set of actions that can be applied to an alert rule. [Learn more](#)

Select actions

Use quick actions (preview) Select one or more of the quick actions.

Use action groups Add an existing action group or create a new one.

None

Quick actions

Quick actions not configured yet

Manage quick actions

Details

Action group name * ⓘ backups

Display name * ⓘ vm-backup

Actions

Email ⓘ aaryanpatel03@gmail.com

Email Azure Resource Manager Role ⓘ Owner

Azure mobile app notification ⓘ aaryanpatel03@gmail.com

Review + create Previous Next: Details > Save Cancel

6B. Provision backups in backup center 2. Schedule a Daily backup of the VM at 3:00 AM using the vault. Configure Retention period in backup policy and retain an old backup.

Steps :

1. Go to the Backup Center and Enable Backup.

The screenshot shows the Microsoft Azure Portal homepage. At the top, there's a search bar with 'Backup Center' typed into it. Below the search bar, there are tabs for 'All', 'Services (17)', and 'Documentation (99+)'. A dropdown menu shows 'More (4)'. The main content area has a section titled 'Hi aaryan, see what more you can do' with a message about remaining usage. It includes a callout to 'Take a free online course on Microsoft Learn'. Below this, there's a 'Services' section with links to 'Business Continuity Center', 'Backup Items', 'Backup vaults', and 'Quickstart Center'. Under 'Documentation', there are links to 'Restore VMs by using the Azure portal using Azure Backup - Azure Backup', 'A2-104: Monitor and back up Azure resources - Training', 'What is Azure Backup? - Azure Backup', and 'Quickstart - Back up a VM with the Azure portal by using Azure Backup - Azure Backup'. On the right side, there's a 'Explore support resources' section with a magnifying glass icon over a user profile. At the bottom, there's a 'Resources' section with a 'Recent' tab showing 'MyVM' and 'MyResourceGroup', and a 'Favorite' tab. The footer includes a weather widget for 'Rainy days ahead 26°C', a search bar, and various icons for different services like App Services and Container registries.

The screenshot shows the 'Configure protection' blade in the Microsoft Azure Portal. The title is 'Configure protection' with a '... More' link. The page is divided into sections: 'Resource environment', 'Datasource type', and 'Solution details'. In 'Resource environment', 'Resources managed by' is set to 'Azure'. In 'Datasource type', 'Datasource type' is set to 'Azure Virtual machines'. In 'Solution details', 'Solution' is set to 'Azure Backup'. At the bottom, there are 'Continue' and 'Cancel' buttons. The footer of the browser window shows a weather update for '4 cm of rain Thursday', a taskbar with various icons, and system status information including 'ENG IN' and '23-06-2025'.

Microsoft Azure Portal | Microsoft Azure | Select a Vault - Microsoft Azure | portal.azure.com/#view/Microsoft_Azure_DataProtection/ConfigureBackupIntermediateBlade/dataSourceType/IaaSVM/launchContext-/3

Microsoft Azure | Upgrade | Search resources, services, and docs (G+) | Copilot | Home > Business Continuity Center > Configure protection > Start: Configure Backup ...

Select a Vault

Resource type: Recovery Services vault

Datasource type
Select the datasource type for which you want to configure backup.

Azure Backup.

Datasource type: Azure virtual machines

Vault type: Recovery Services vault

Vault *: Select vault

Filter by name: Subscription == Azure subscription 1 Location == All Resource group == All

1-1 of 1 items

Name	Subscription	Resource group	Location
Vault1	Azure subscription 1	MyResourceGroup	East US

< Previous Page 1 of 1 Next >

Continue Cancel Select Cancel Give feedback

4 cm of rain Thursday ENG IN 23-06-2025

Microsoft Azure Portal | Microsoft Azure | Configure backup - Microsoft Azure | portal.azure.com/#view/Microsoft_Azure_DataProtection/V1EnableIaaSVMBackupBlade/_provisioningContext-/7B"initialValues"%3A%7B"subscriptionIds"%3A%5B"2f3d5787-...| Microsoft Azure | Upgrade | Search resources, services, and docs (G+) | Copilot | Home > Business Continuity Center > Configure protection > Start: Configure Backup > Configure backup ...

Configure backup

Vault1

Policy sub type *: Enhanced

- Multiple backups per day
- Up to 30 days operational tier retention
- Support for Trusted Launch Azure VM
- Support for VMs with Ultra Disks and Premium SSD v2

Standard

- Once-a-day backup
- Up to 5 days operational tier retention

Backup policy *: DailyBackup3AM

Create a new policy

Protecting a VM with enhanced policy can incur additional snapshot charges. Please note that once you enable a VM backup with enhanced policy, changing to standard policy type is not possible. [Learn more](#).

Policy details

Full backup

Backup frequency: Daily at 3:00 AM UTC

Instant restore: Retain instant recovery snapshot(s) for 7 day(s)

Retention of daily backup point: Retain backup taken every day at 3:00 AM for 30 Day(s)

Consistency type: Application or file-system consistent

Virtual machines

Name	Resource group	Disks	Include future disks
No virtual machines selected.			

Enable backup Download a template for automation Give feedback

4 cm of rain Thursday ENG IN 23-06-2025

2. Modify Retention in Backup Policy.

The screenshot shows the 'Modify policy' page in the Microsoft Azure Portal. The URL is [https://portal.azure.com/#view/Microsoft_Azure_DataProtection/V1EditAzurelaasVMPolicyBlade/_provisioningContext~%7B\"initialValues\"%3A%7B\"subscriptionIds\"%3A%5B\"2f3d578...](https://portal.azure.com/#view/Microsoft_Azure_DataProtection/V1EditAzurelaasVMPolicyBlade/_provisioningContext~%7B\). The page title is 'Modify policy - Microsoft Azure'. The user is logged in as 'aaryanpatel03@gmail.com'.

Backup schedule

Frequency *: Daily, Time *: 3:00 AM, Timezone *: (UTC) Coordinated Universal Time

Instant restore

Retain instant recovery snapshot(s) for: 7 Day(s)

Retention range

Retention of daily backup point
At: 3:00 AM, For: 30 Day(s)

Retention of weekly backup point
Not Configured

Retention of monthly backup point

Buttons: Update (highlighted), Cancel

3. Retain an Older Backup (Long-Term).

The screenshot shows the Microsoft Azure Portal interface. The main navigation bar at the top includes 'Microsoft Azure', 'Upgrade', 'Search resources, services, and docs (G+)', 'Copilot', and user information ('aryanpatel03@gmail.com... DEFAULT DIRECTORY'). Below the navigation bar, the URL is 'portal.azure.com/#view/Microsoft_Azure_DataProtection/V1RestoreaaSVMViewModel/protectedItemId/%2Fsubscriptions%2Ff3d5787-823d-4659-a9ca-90a60dd7dc26%2Fres...'. The left sidebar shows 'Home > Vault1 | Backup items > Backup Items (Azure Virtual Machine) > Restore Virtual Machine ...'. The main content area is titled 'Select restore point' for 'MyVM'. It displays a table with columns 'Time', 'Consistency', and 'Recovery Type'. A single row is selected: '6/23/2025, 9:26:09 PM', 'File-system Consistent', and 'Snapshot'. At the bottom right of the dialog are 'OK' and 'Cancel' buttons.

The screenshot shows the Microsoft Azure Portal interface. The main navigation bar at the top includes 'Microsoft Azure', 'Upgrade', 'Search resources, services, and docs (G+)', 'Copilot', and user information ('aryanpatel03@gmail.com... DEFAULT DIRECTORY'). Below the navigation bar, the URL is 'portal.azure.com/#view/Microsoft_Azure_DataProtection/V1RestoreaaSVMViewModel/protectedItemId/%2Fsubscriptions%2Ff3d5787-823d-4659-a9ca-90a60dd7dc26%2Fres...'. The left sidebar shows 'Home > Vault1 | Backup items > Backup Items (Azure Virtual Machine) > Restore Virtual Machine ...'. The main content area is titled 'Restore Virtual Machine' for 'MyVM'. It shows a 'Restore configuration' section with 'Restore target' set to 'Create new'. Under 'Restore Type', 'Create new virtual machine' is selected. Other fields include 'Virtual machine name' (MyLinuxVM), 'Resource group' (MyResourceGroup), 'Virtual network' (MyVNet2), 'Subnet' (MySubnet), and 'Staging Location' (azuremyresomyvm062321020 (StandardGRS)). A note at the bottom says 'To create an alternate configuration when restoring your VM (from the following menus), use PowerShell cmdlets.' At the bottom right of the dialog are 'OK' and 'Cancel' buttons.

Microsoft Azure Portal | Microsoft Azure | Backup Items (Azure Virtual Machine) | portal.azure.com/#view/Microsoft_Azure_DataProtection/V1ProtectedItemsListBlade/vaultId/%2Fsubscriptions%2F13d5787-823d-4659-a9ca-90a60dd7dc26%2FresourceGroup... | +

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

Home > Vault1 | Backup items > Backup Items (Azure Virtual Machine)

Backup Items (Azure Virtual Machine) ...

Vault1

Refresh Add Filter Change policy Feedback

Try our new Business Continuity Center for at scale BCDR management of your resources protected across Azure Backup and Site Recovery. →

Filter items ...

Name	Resource Group	Backup Pre-Check	Last Backup Status	Latest restore point	Policy name	Policy status
MyVM	MyResourceGroup	Passed	Success	6/23/2025, 9:26:09 PM	DailyBackup3AM	Enhanced

< Previous Page 1 of 1 Next >

Notifications

More events in the activity log → Dismiss all

Triggering restore for MyVM

Restore triggered successfully. Please monitor progress in backup jobs page.

a few seconds ago

https://portal.azure.com/#blade/Microsoft_Azure_ActivityLog/ActivityLogBlade/queryInputs/%7B"user%3A%40me%7D"

26°C Cloudy Search

ENG IN 21:41 23-06-2025