

Module 8: Assignment - 1

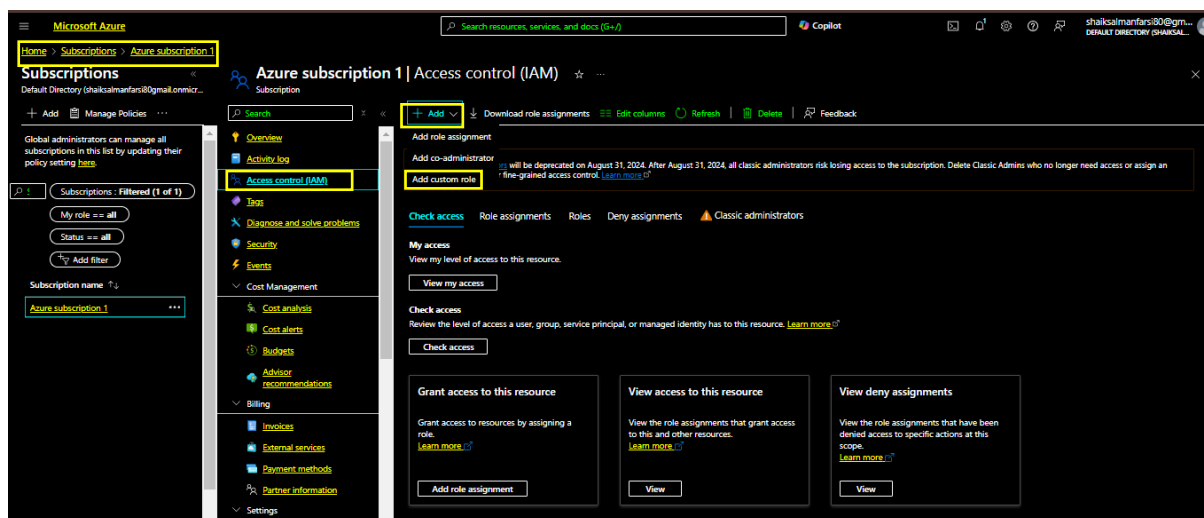
Azure 104 Certification Course



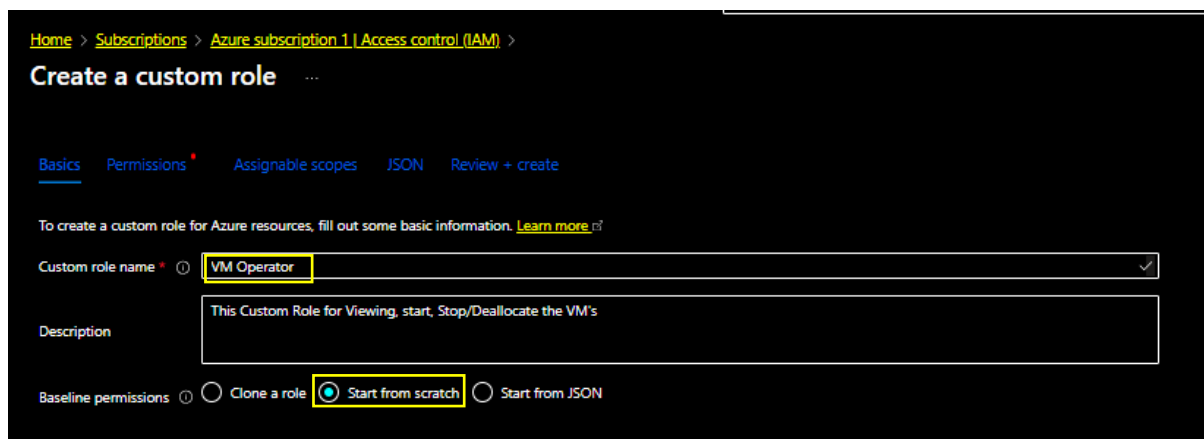
Tasks To Be Performed:

1. Create a custom role which can view, start and stop VMs
2. But should not be able to do anything else

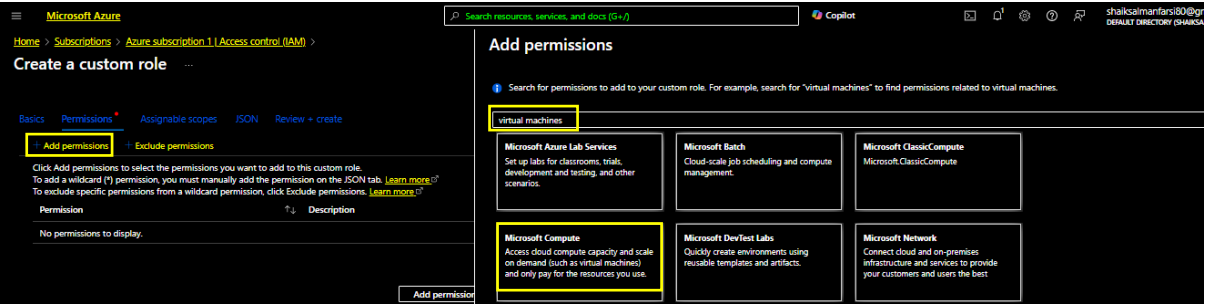
Go to Subscriptions > Access Control(IAM) > Add > Add Custom Role



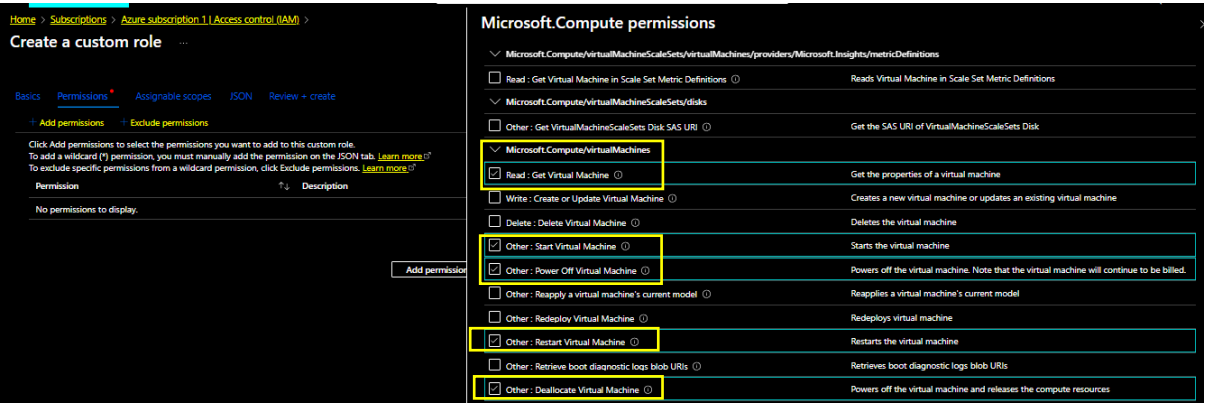
Fill Basics Detail, I choose start from scratch



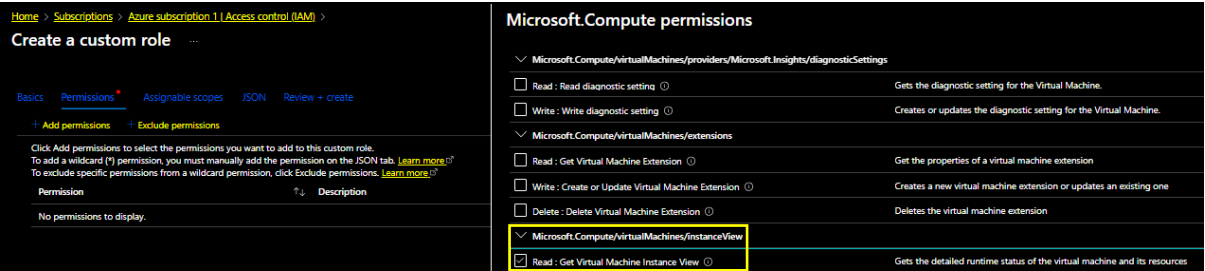
In Permissions > Click Add Permissions > search virtual machines > select Microsoft Compute



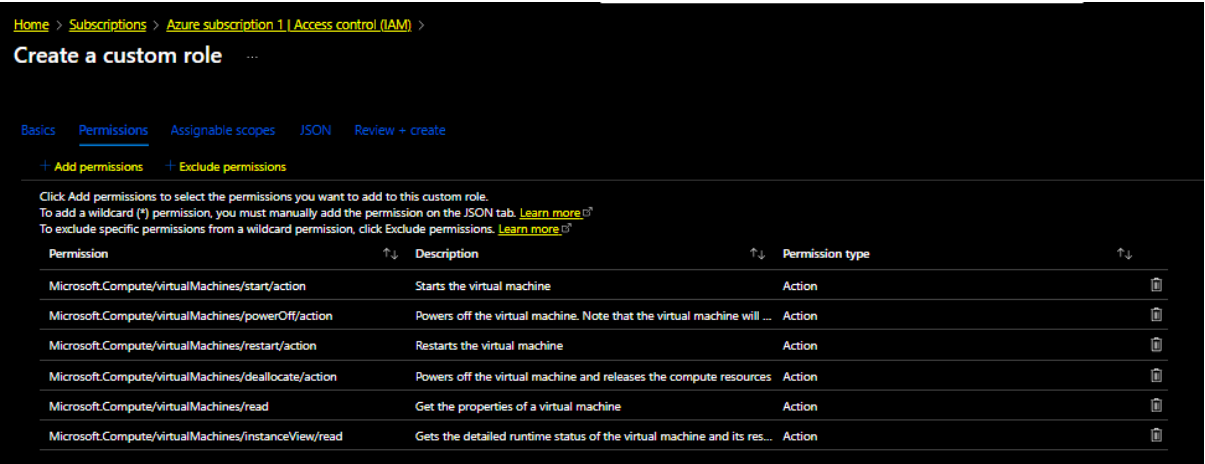
Scroll and select those things view, start, stop access



Scroll it to last



According to Assignment, I Added the mentioned permissions



Here I leave it as a subscription level

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

Create a custom role

Basics Permissions Assignable scopes JSON Review + create

[+ Add assignable scopes](#)

Click Add assignable scopes to select the scopes (management groups, subscriptions, or resource groups) where this role will be available for assignment. Your role must have at least one assignable scope. [Learn more](#)

Assignable scope	Type
/subscriptions/9ec127a6-d815-4174-8df6-0e4aa2a694db	Subscription

This is Json View

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

Create a custom role

Basics Permissions Assignable scopes JSON Review + create

Here is your custom role in JSON format. [Learn more](#)

[Download](#) [Copy](#) [Edit](#)

```
1  {
2    "properties": {
3      "roleName": "VM Operator",
4      "description": "This Custom Role for Viewing, start, Stop/Deallocate the VM's",
5      "assignableScopes": [
6        "/subscriptions/9ec127a6-d815-4174-8df6-0e4aa2a694db"
7      ],
8      "permissions": [
9        {
10         "actions": [
11           "Microsoft.Compute/virtualMachines/start/action",
12           "Microsoft.Compute/virtualMachines/powerOff/action",
13           "Microsoft.Compute/virtualMachines/restart/action",
14           "Microsoft.Compute/virtualMachines/deallocate/action",
15           "Microsoft.Compute/virtualMachines/read",
16           "Microsoft.Compute/virtualMachines/instanceView/read"
17         ],
18         "notActions": [],
19         "dataActions": [],
20         "notDataActions": []
21       }
22     ]
23   }
```

[Review + create](#) [Previous](#) [Next](#)

Review+Create

Basics Permissions Assignable scopes JSON Review + create

Basics

Role name VM Operator

Role description This Custom Role for Viewing, start, Stop/Deallocate the VM's

Permissions

Action	Microsoft.Compute/virtualMachines/start/action
Action	Microsoft.Compute/virtualMachines/powerOff/action
Action	Microsoft.Compute/virtualMachines/restart/action
Action	Microsoft.Compute/virtualMachines/deallocate/action
Action	Microsoft.Compute/virtualMachines/read
Action	Microsoft.Compute/virtualMachines/instanceView/read

Assignable Scopes

Scope	/subscriptions/9ec127a6-d815-4174-8df6-0e4aa2a694db
-------	---

Create Previous

VM Operator Custom Role Created successfully

Microsoft Azure

Search resources, se

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

Create a custom role ...

You have successfully created the custom role "VM Operator". It may take the system a few minutes to display your role everywhere.

OK

Module 8: Assignment - 2

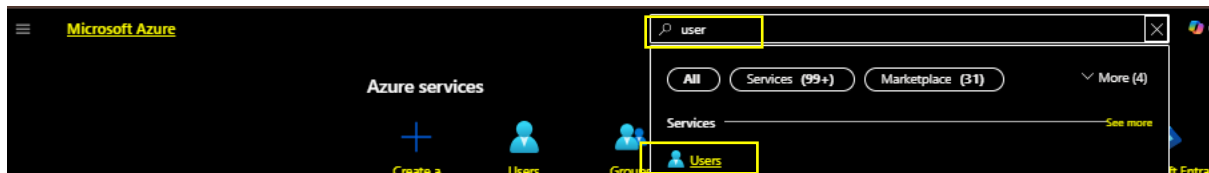
Azure 104 Certification Course



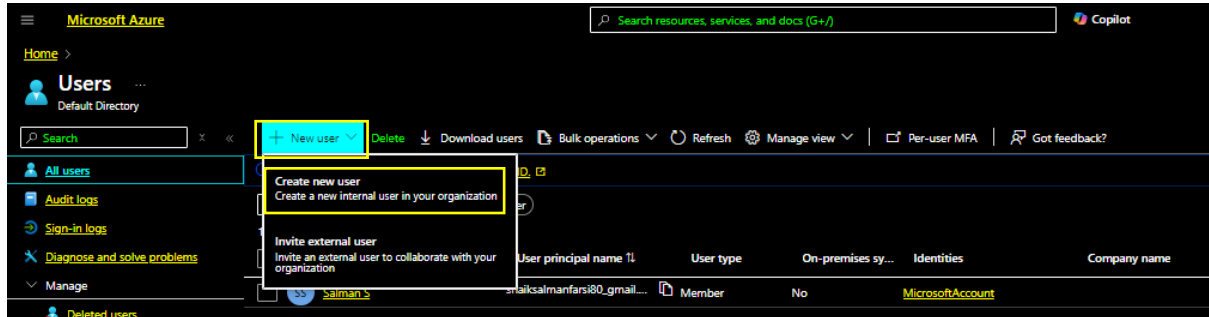
Tasks To Be Performed:

1. Create a new user
2. Assign the previously created user this role

Search Users



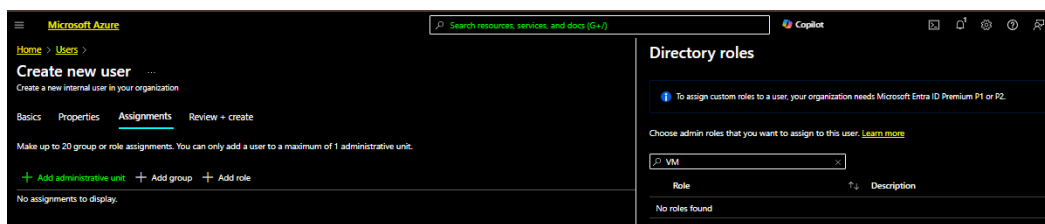
Click New user > Click Create new user



Fill the Details and change the password and Skip the properties

A screenshot of the 'Create new user' form in the Microsoft Azure portal. The form has tabs for 'Basics', 'Properties', 'Assignments', and 'Review + create'. The 'Basics' tab is selected. The form contains fields for 'User principal name' (sultan), 'Mail nickname' (sultan), 'Display name' (sultan sa), and 'Password'. There are checkboxes for 'Derive from user principal name', 'Auto-generate password', and 'Account enabled'. A message at the top says 'Create a new user in your organization. This user will have a user name like alice@contoso.com. Learn more'.

On Assignments Section, If we click Add role then it will ask you to Microsoft entra ID P1 OR P2, its for directory roles, currently we need to assign for particular VM role so we can go with Azure Role Assignment So Skip this section also



Review + Create

[Home](#) > [Users](#) >

Create new user

Create a new internal user in your organization

Basics Properties Assignments **Review + create**

Basics

User principal name: sultan@shaiksalmanfarsi80gmail.onmicrosoft.com

Display name: sultan sa

Mail nickname: sultan

Password: [masked]

Account enabled: Yes

Properties

User type: Member

Assignments

Administrative units

Groups

Roles

Now user name also visible on users section

[Home](#) > [Users](#) > Default Directory

Search [] + New user Delete Download users Bulk operations Refresh Manage view Per-user MFA Got feedback?

All users Azure Active Directory is now Microsoft Entra ID

Search [] Add filter

2 users found

	Display name	User principal name	User type	On-premises sy...	Identities	Company name	Creation type
<input type="checkbox"/>	Salman S	shaiksalmanfarsi80_gmail...	Member	No	MicrosoftAccount		
<input type="checkbox"/>	sultan sa	sultan@shaiksalmanfarsi8...	Member	No	shaiksalmanfarsi80gmail.onmicr...		

Deleted users Recycled user

Come to Subscription > Access Control(IAM) > Add > Add Role Assignment

[Home](#) > [Subscriptions](#) > [Azure subscription 1](#)

Subscriptions

Default Directory (shaiksalmanfarsi80gmail.onmicr...

+ Add Manage Policies

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

Subscriptions: Filtered (1 of 1)

My role == all

Status == all

Add filter

Subscription name

Azure subscription 1

Azure subscription 1 | Access control (IAM)

Search [] + Add Download role assignments Edit columns Refresh Delete Feedback

Add role assignment

Add co-administrator

Add custom role

Check access Role assignments Roles Deny assignments Classic administrators

My access

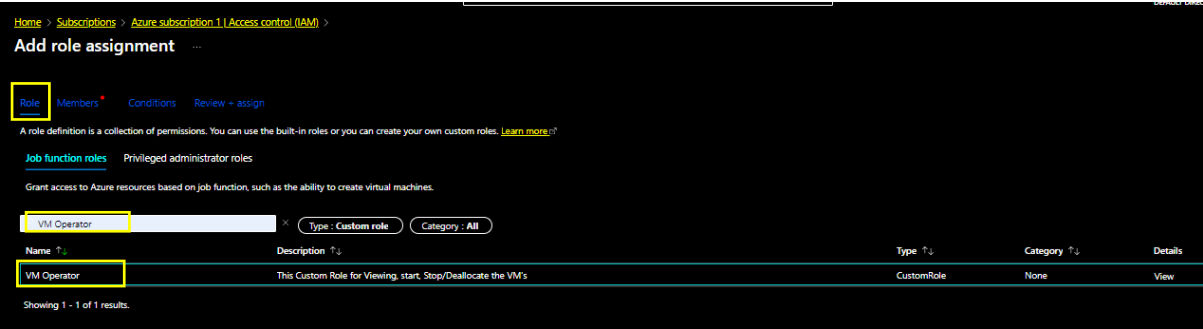
View my level of access to this resource.

View my access

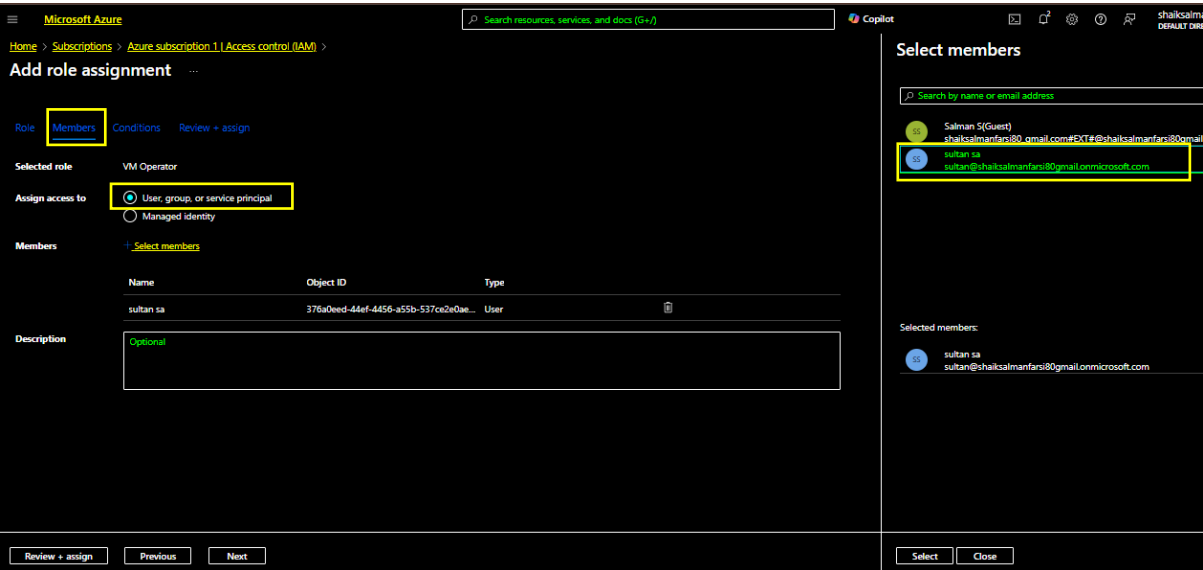
Check access

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

Role Section Search Created Custom Role and Select it



Select User



Review + Create



Now I am Deploying VM

[Home](#) > [Virtual machines](#) >

Create a virtual machine

[Help me create a low cost VM](#) [Help me create a VM optimized for high availability](#) [Help me choose the right VM size for my workload](#)

[Basics](#) [Disks](#) [Networking](#) [Management](#) [Monitoring](#) [Advanced](#) [Tags](#) [Review + create](#)

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

Project details

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

Subscription *

Azure subscription 1

Resource group *

(New) VM_group

Create new

Instance details

Virtual machine name *

VM

Region *

(Asia Pacific) East Asia


Availability options

No infrastructure redundancy required

Security type

Standard

Image *

 Ubuntu Server 22.04 LTS - x64 Gen2

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

[< Previous](#) [Next : Disks >](#) [Review + create](#)

Username *

Salman

Password *

Confirm password *

Inbound port rules


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

Public inbound ports *

☐ None ☒ Allow selected ports

Select inbound ports *

SSH (22)

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

[< Previous](#) [Next : Disks >](#) [Review + create](#)

Home >

CreateVm-canonical.0001-com-ubuntu-server-jammy-2-20240823121245 | Overview

Deployment

Search

Delete Cancel Redeploy Download Refresh

Overview

Inputs

Outputs

Template

✓ Your deployment is complete

Deployment name: CreateVm-canonical.0001-com-ubuntu-server-j... Start time: 8/23/2024, 12:14:21 PM
Subscription: [Azure subscription 1](#) Correlation ID: 8be8657e-dd84-4989-af07-d67458d97447
Resource group: [VM_group](#)

Deployment details

Next steps

[Setup auto-shutdown](#) Recommended

[Monitor VM health, performance and network dependencies](#) Recommended

[Run a script inside the virtual machine](#) Recommended

[Go to resource](#) [Create another VM](#)

Give feedback

[Tell us about your experience with deployment](#)

Now I am login as a sultan user, Use Another Account

Microsoft

Pick an account

to continue to Microsoft Azure

Salman S
shaiksalmanfarsi80@gmail.com
Signed in

salman S
salmanS@LearningPurpose435.onmicrosoft.com
Signed in

+ Use another account

Do Login

Microsoft

Sign in


to continue to Microsoft Azure

sultan@shaiksalmanfarsi80gmail.onmicrosoft.com

[Can't access your account?](#)

Back Next

It will ask Password and again it will ask update your password > sign in



sultan@shaiksalmanfarsi80gmail.onmicrosoft.com

Update your password

You need to update your password because this is the first time you are signing in, or because your password has expired.

.....

.....

.....

Sign in

We Can see the VM

Microsoft Azure									
Home > Virtual machines									
Default Directory (shaiksalmanfarsi80gmail.onmicrosoft.com)									
+ Create ▾ Switch to classic Reservations Manage view Refresh Export to CSV Open query Assign tags Start Restart Stop Delete Services Maintenance ▾									
Filter for any field... Subscription equals all Type equals all Resource group equals all Location equals all Add filter									
Showing 1 to 1 of 1 records. No grouping List view									
<input type="checkbox"/>	Name ↑	Subscription ↑	Resource group ↑	Location ↑	Status ↑	Operating system ↑	Size ↑	Public IP address ↑	Disks ↑
<input type="checkbox"/>	VM	Azure subscription 1	VM_group	East Asia	Creating	Linux	Standard_B1s	-	1

Now I am trying to delete

Microsoft Azure

Home > Virtual machines

Virtual machines

Default Directory (shaiksalmanfarsi80gmail.onmicrosoft.com)

+ Create ▾ Switch to classic ...

Filter for any field...

Name ↑

VM

VM

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Connect

Networking

Network settings

Load balancing

Application security groups

Network manager

Settings

Availability + scale

Security

Backup + disaster recovery

Operations

Monitoring

Automation

Help

Essentials

Resource group (move) : VM_group

Status : Creating

Location : East Asia

Subscription (move) : Azure subscription 1

Subscription ID : 9ec127a6-d815-4174-8df6-0e4aa

Tags (edit) : Add tags

Properties

Monitoring

Capabilities (7)

Records

Virtual machine

Computer name : VM

Operating system : Linux

VM generation : V2

VM architecture : x64

Hibernation : Disabled

Host group : -

Host : -

Proximity placement group : -

Provisioning status : N/A

Delete VM

This action will permanently delete this virtual machine.

Resource to be deleted

VM

Resource type

Virtual machine

☐ Apply force delete

You can also choose to delete associated resources at the same time. Resources that aren't deleted will be orphaned. Associated resources that are in use by other resources are not shown here.

Associated resource type

Quantity

Delete with VM

OS disk

1

☒

Network interfaces

1

☐

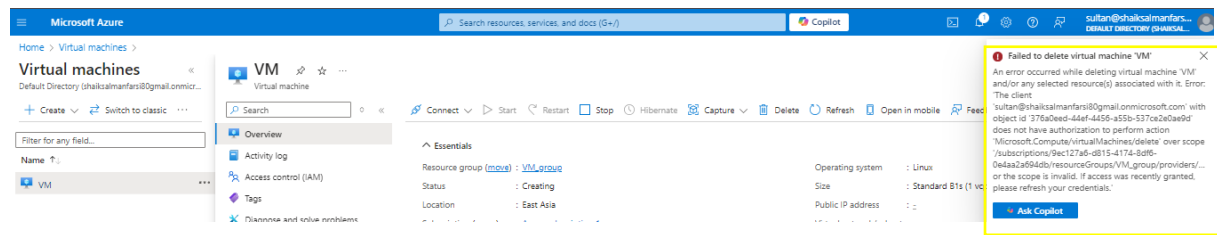
Some public IP address information failed to load. Displayed public IP address information may be incomplete.

☒ I have read and understand that this virtual machine as well as any selected associated resources listed above will be deleted.

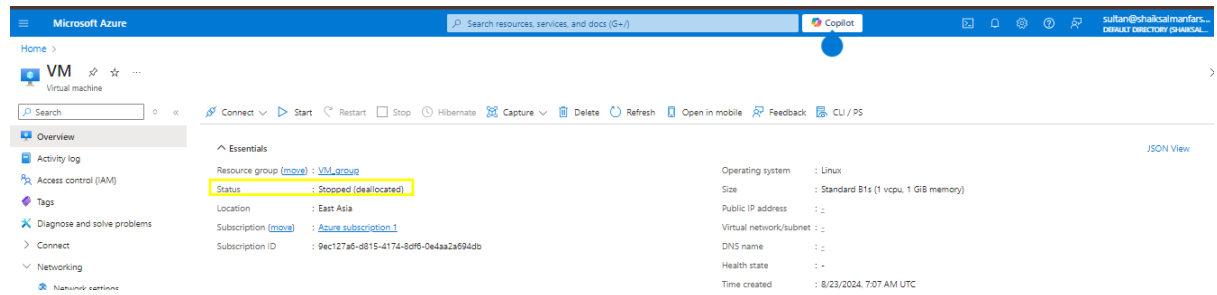
Delete

Cancel

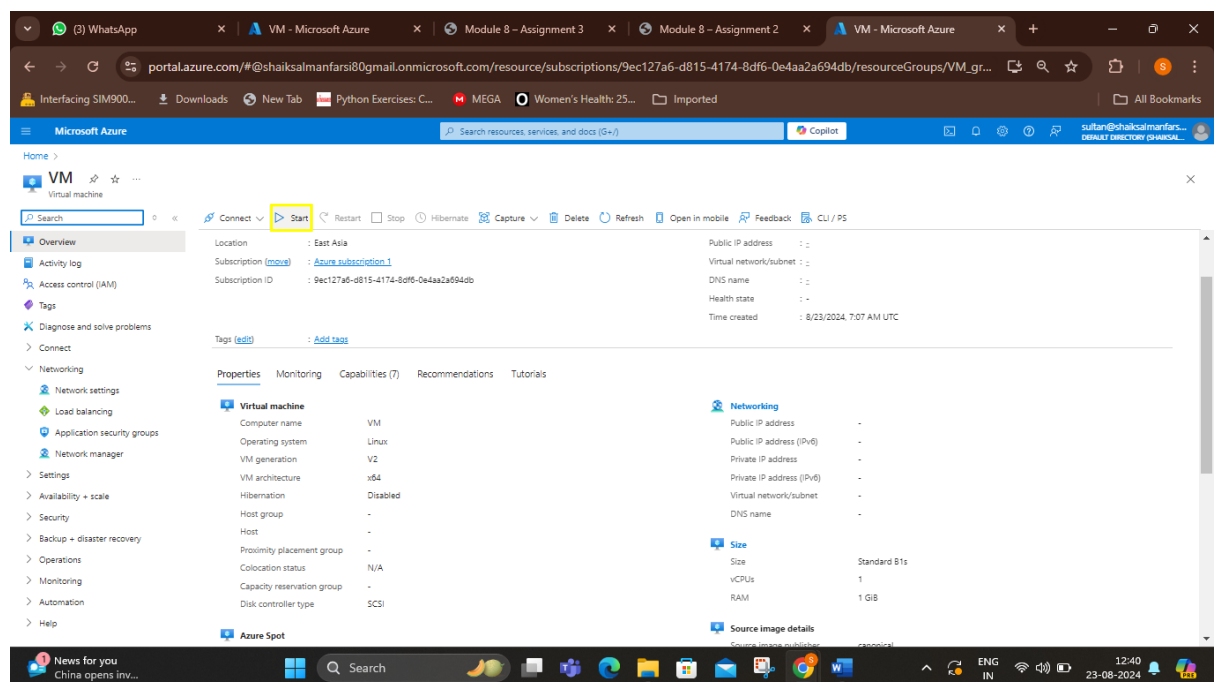
It showing failed, telling that u don't have authoriazation to delete this VM



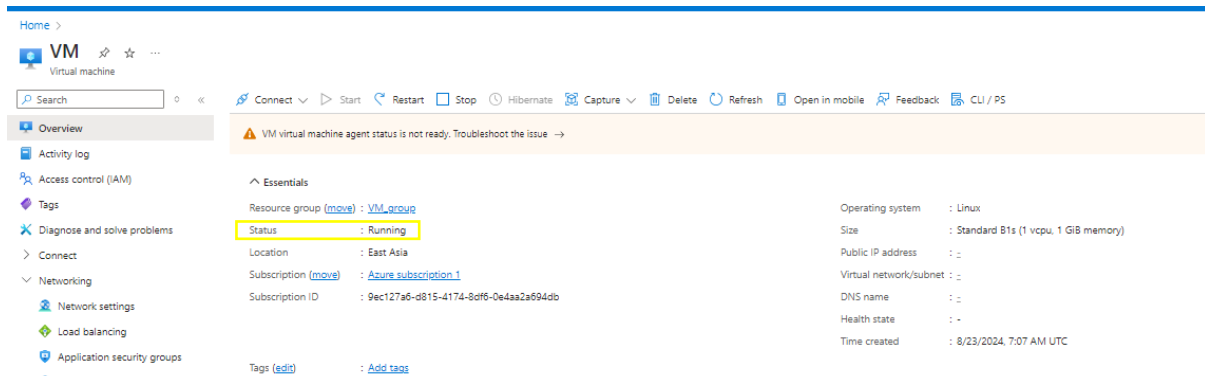
User can stop the VM



User can Start the VM



Now its running so only things working which we gave permission to user viewing VM, Start VM, Stop VM



Home > VM Virtual machine

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

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

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Connect

Networking

Network settings

Load balancing

Application security groups

Network manager

Essentials

Resource group (move) : VM_group

Status : Running

Location : East Asia

Subscription (move) : Azure subscription 1

Subscription ID : 9ec127a6-d815-4174-8df5-0e4aa2a594db

Tags (edit) : Add tags

Operating system : Linux

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

Public IP address : -

Virtual network/subnet : -

DNS name : -

Health state : -

Time created : 8/23/2024, 7:07 AM UTC

Module 8: Assignment - 3

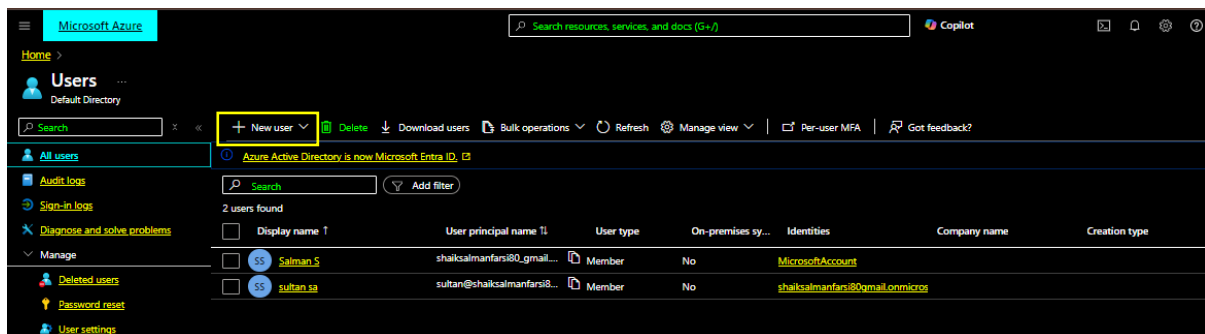
Azure 104 Certification Course



Tasks To Be Performed:

1. Create a user group
2. Attach the role created in Assignment 1 to this group
3. Add new users to this group and check whether the permissions get assigned or not

Before creating Group I will create another user



Microsoft Azure

Search resources, services, and docs (5+)

Copilot

Home > Users Default Directory

Search

+ New user Delete Download users Built operations Refresh Manage view Per-user MFA Got feedback?

Azure Active Directory is now Microsoft Entra ID

Search Add filter

2 users found

Display name	User principal name	User type	On-premises sy...	Identities	Company name	Creation type
Salman S	shaiksalmanfarsi80_gmail...	Member	No	MicrosoftAccount		
sultan sa	sultan@shaiksalmanfarsi8...	Member	No	shaiksalmanfarsi80gmail.onmicros...		

Deleted users Password reset User settings

Previously we created a user, likely we have to create another user

Microsoft Azure

Search resources

[Home](#) > [Users](#) >

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 *

manoj

@

shaiksalmanfarsi80gmai...

Domain not listed? [Learn more](#)

Mail nickname *

manoj

☐ Derive from user principal name

Display name *

manoj

Password *

☐ Auto-generate password

Account enabled ⓘ

☒

Review + create

< Previous

Next: Properties >

Microsoft Azure

Search resources

[Home](#) > [Users](#) >

Create new user

Create a new internal user in your organization

[Basics](#) [Properties](#) [Assignments](#) [Review + create](#)

Make up to 20 group or role assignments. You can only add a user to a maximum of 1 administrative unit.

[+ Add administrative unit](#) [+ Add group](#) [+ Add role](#)

No assignments to display.

Home > Users >

Create new user

Create a new internal user in your organization

Basics Properties Assignments Review + create

Basics

User principal name manoj@shaiksalmanfarsi80gmail.onmicrosoft.com

Display name manoj

Mail nickname manoj

Password *****

Account enabled Yes

Properties

User type Member

Assignments

Administrative units

Groups

Roles

Create < Previous Next >

We can see User name on Users dashboard

Home > Users

Default Directory

Search

Azure Active Directory is now Microsoft Entra ID

3 users found

	Display name ↑	User principal name ↑	User type	On-premises sy...	Identities	Company name	Creation type
<input type="checkbox"/>	manoj	manoj@shaiksalmanfarsi80gmail.onmicrosoft.com	Member	No	shaiksalmanfarsi80gmail.onmicros...		
<input type="checkbox"/>	Salman.S	shaiksalmanfarsi80_gmail...	Member	No	MicrosoftAccount		
<input type="checkbox"/>	sultan.sa	sultan@shaiksalmanfarsi80...	Member	No	shaiksalmanfarsi80gmail.onmicros...		

Search Groups

Microsoft Azure

Azure services

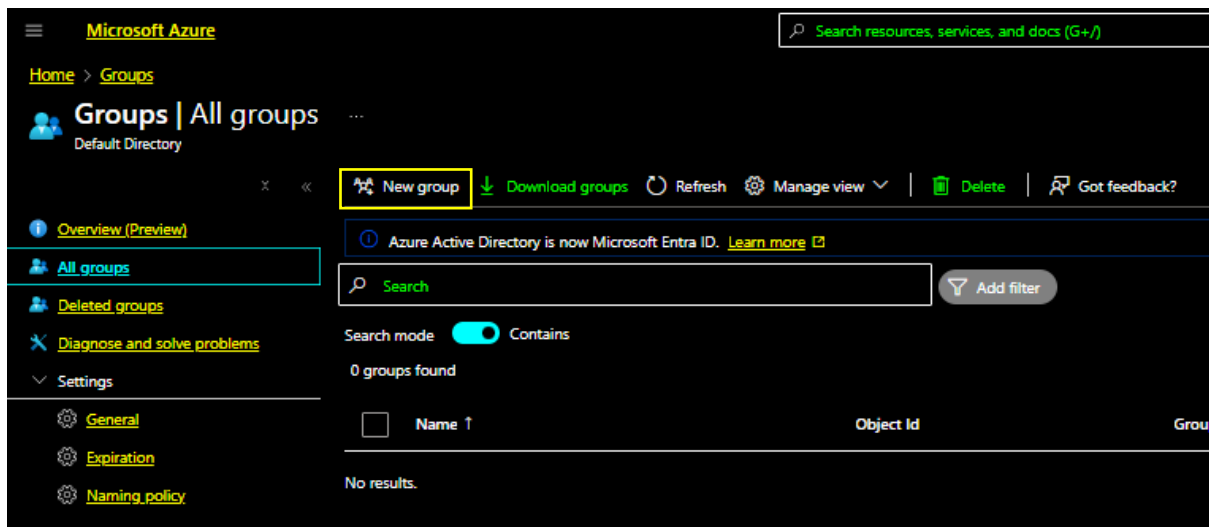
groups

All Services (23) Marketplace (12) More (4)

Services

Groups

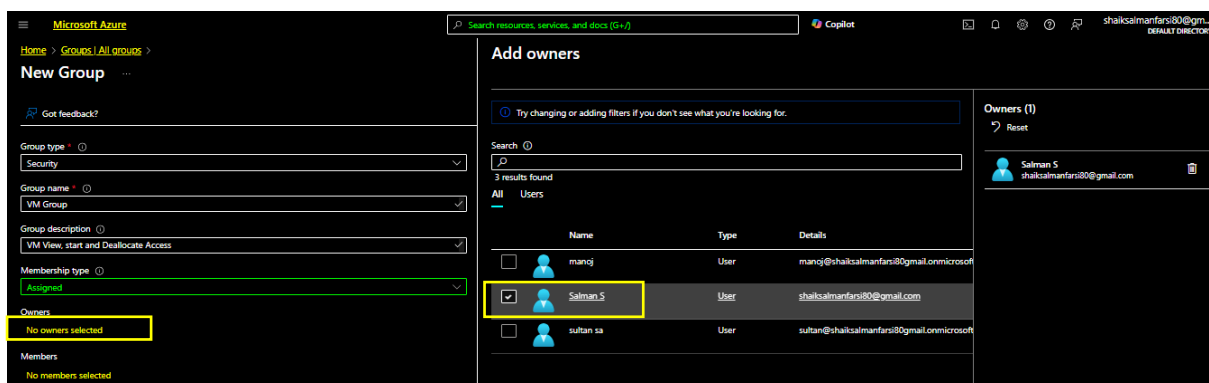
Click on **New Group**



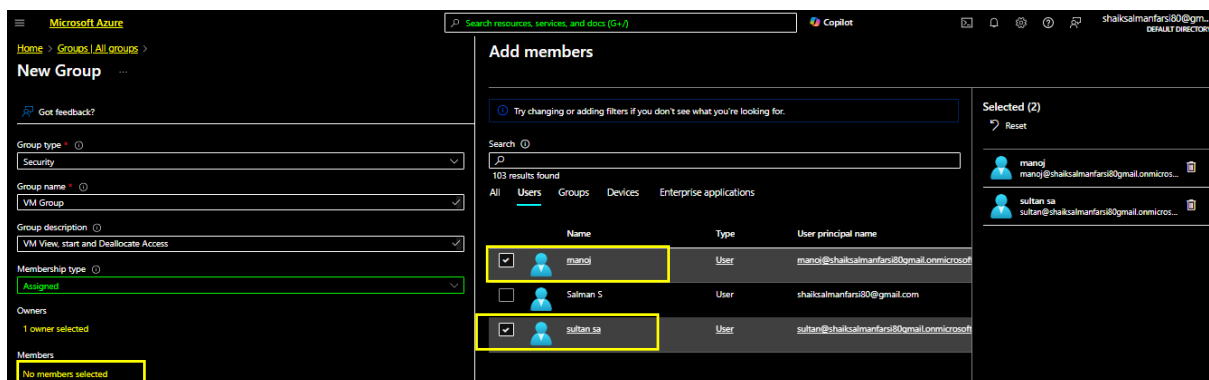
Group Type > Security

Group Name > VM Group

Add Group Description, Click on Owners and I selected my name



Click Members and add both and Create



Microsoft Azure

Home > Groups | All groups >

New Group

Got feedback?

Group type * ⓘ
Security

Group name * ⓘ
VM Group

Group description ⓘ
VM View, start and Deallocate Access

Membership type ⓘ
Assigned

Owners
1 owner selected

Members
2 members selected

Created Successfully

Home > Groups

Groups | All groups

Default Directory

New group Download groups Refresh Manage view Delete Got feedback?

Azure Active Directory is now Microsoft Entra ID. [Learn more](#)

Search

Search mode Contains

1 group found

<input type="checkbox"/>	Name	Object Id	Group type	Membership type	Email
<input type="checkbox"/>	VG VM Group	78df0a2a-ed4d-4656-a91c-f22a78c4b5fd	Security	Assigned	

Subscriptions > Access Control(IAM) > Add Role Assignment

Home > Azure subscription 1

Azure subscription 1 | Access control (IAM)

Subscription

Search

+ Add Download role assignments Edit columns Refresh Delete Feedback

Add role assignment

Add co-administrator will be deprecated on August 31, 2024. After August 31, 2024, all classic administrators risk losing access to the resource.

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 View deny access

Select Custom Role(Customize Permissions) which we created for previous assignment

Home > 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.

VM Operator × Type: Custom role Category: All

Name ↑	Description ↑	Type ↑	Category ↑	Details
VM Operator	This Custom Role for Viewing, start, Stop/Deallocate the VM's	CustomRole	None	View

Showing 1 - 1 of 1 results.

Now here we select group, previously we select only user now this time we select Group

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

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

Role Members Conditions Review + assign

Selected role: VM Operator

Assign access to: ☒ User, group, or service principal ☐ Managed identity

Members: [Select members](#)

Name	Object ID	Type
No members selected		

Description: Optional

Select members

Search by name or email address

- manoj@shaiksalmanfarsi80gmail.onmicrosoft.com
- Salman S(Guest) shaiksalmanfarsi80_gmail.com#EXT#@shaiksalmanfarsi80gmail.onmicrosoft.com
- sultan sa sultan@shaiksalmanfarsi80gmail.onmicrosoft.com
- VM Group VM View, start and Deallocate Access

Selected members: VM Group VM View, start and Deallocate Access

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

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

Role Members Conditions Review + assign

Selected role: VM Operator

Assign access to: ☒ User, group, or service principal ☐ Managed identity

Members: [Select members](#)

Name	Object ID	Type
No members selected		

Description: Providing partial VM Access to this Group

Select members

Search by name or email address

- manoj@shaiksalmanfarsi80gmail.onmicrosoft.com
- Salman S(Guest) shaiksalmanfarsi80_gmail.com#EXT#@shaiksalmanfarsi80gmail.onmicrosoft.com
- sultan sa sultan@shaiksalmanfarsi80gmail.onmicrosoft.com
- VM Group VM View, start and Deallocate Access

Selected members: VM Group VM View, start and Deallocate Access

Review + Create

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

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

Role Members Conditions Review + assign

Role: VM Operator

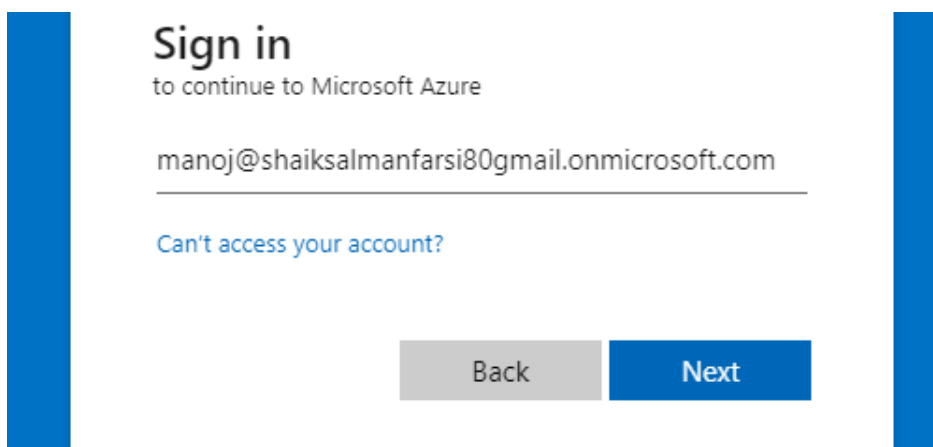
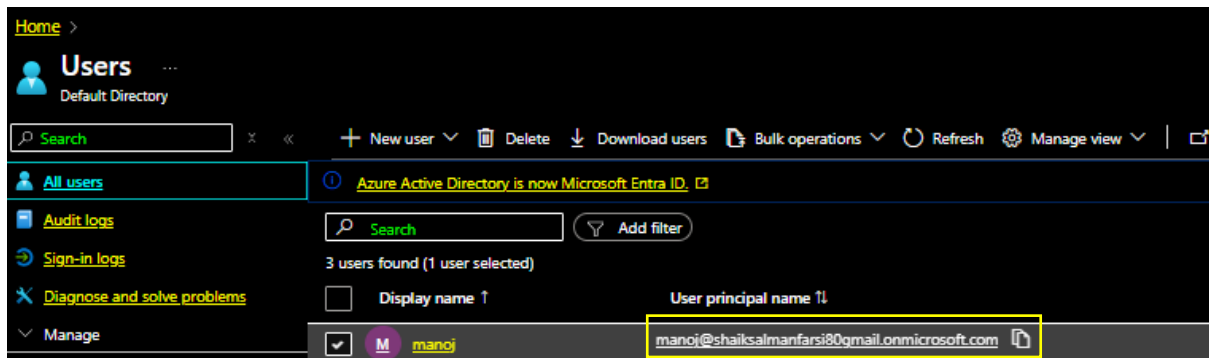
Scope: /subscriptions/9ec127a6-d815-4174-8df6-0e4aa2a694db

Members:

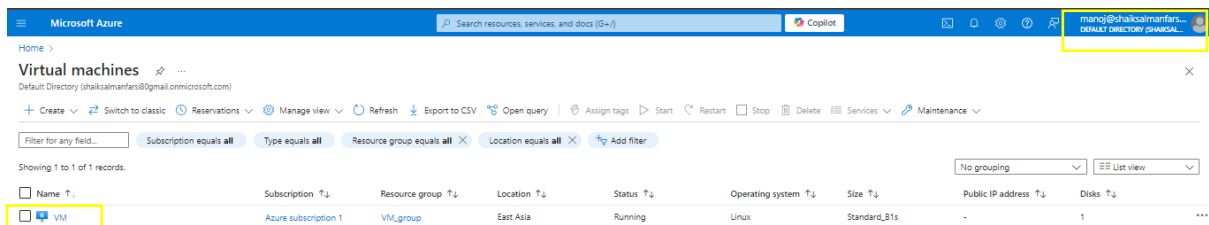
Name	Object ID	Type
VM Group	78df0a2a-ed4d-4656-a91c-f22a78c4bf5d	Group

Description: Providing partial VM Access to this Group

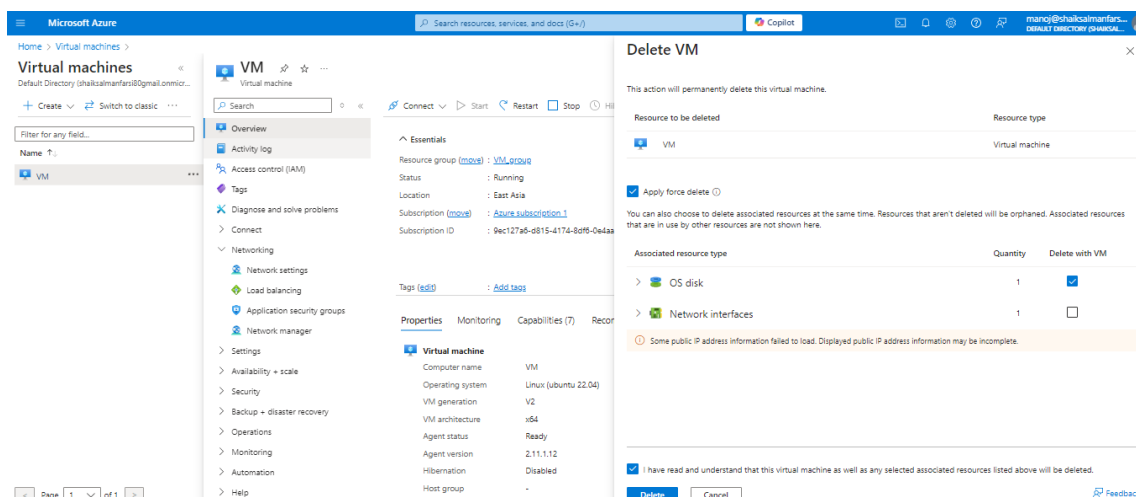
Previously I Login with sultan user, so need to login again sultan because same permission now we attached to group, so I will login manoj user, lets see the permission is granted to this user or not



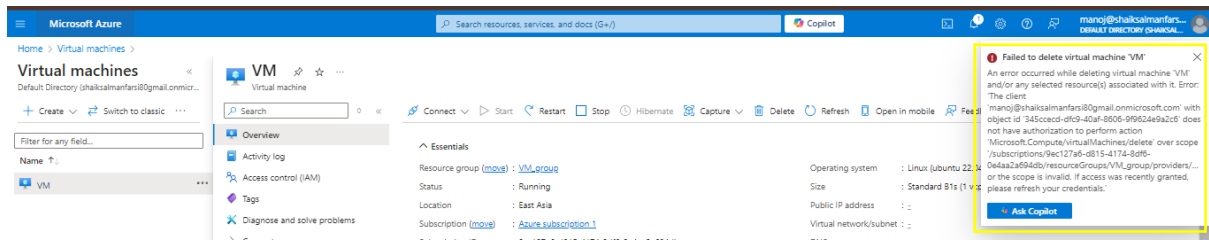
As a Manoj User we can see the VM



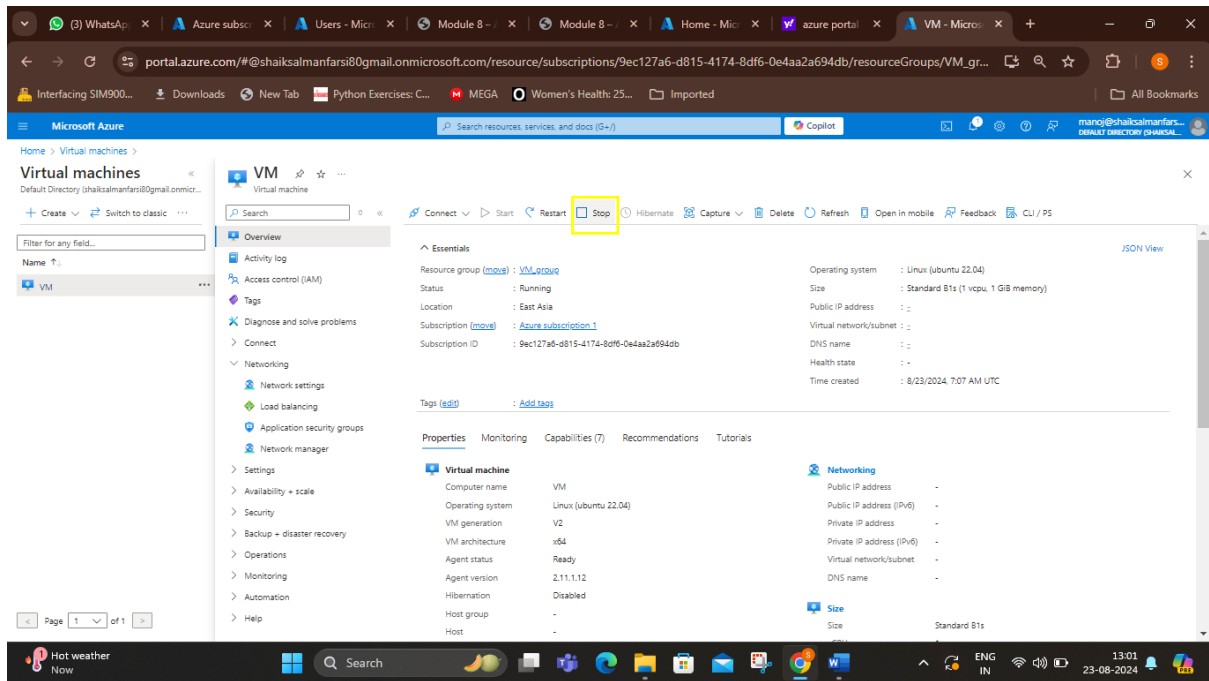
Now I am Trying to delete VM as a Manoj User



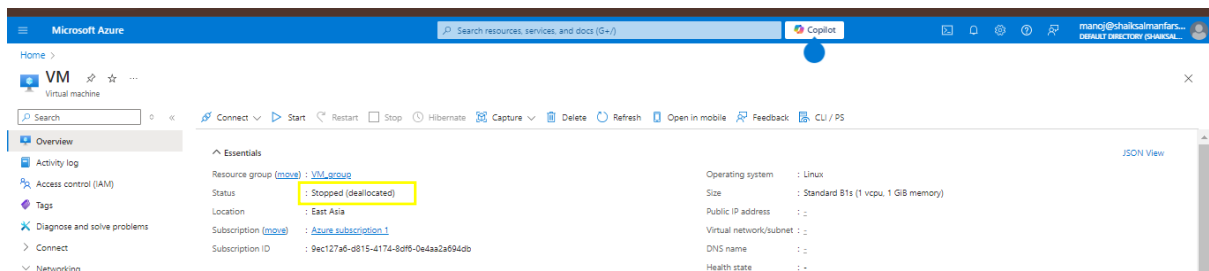
Same, not able to delete



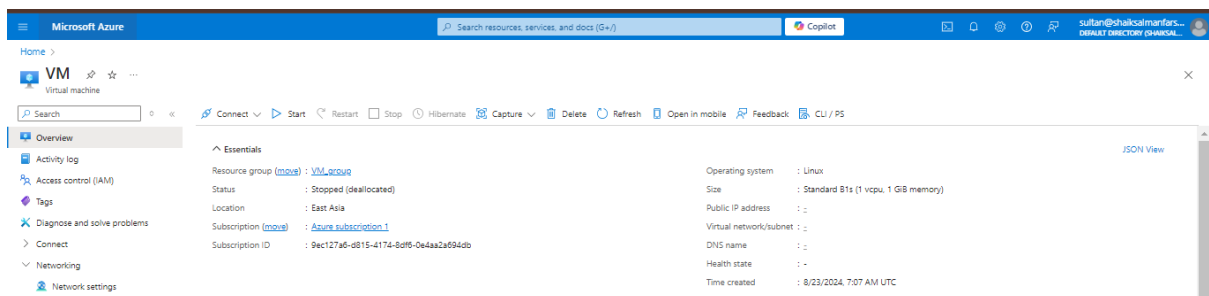
Stopping/Deallocating



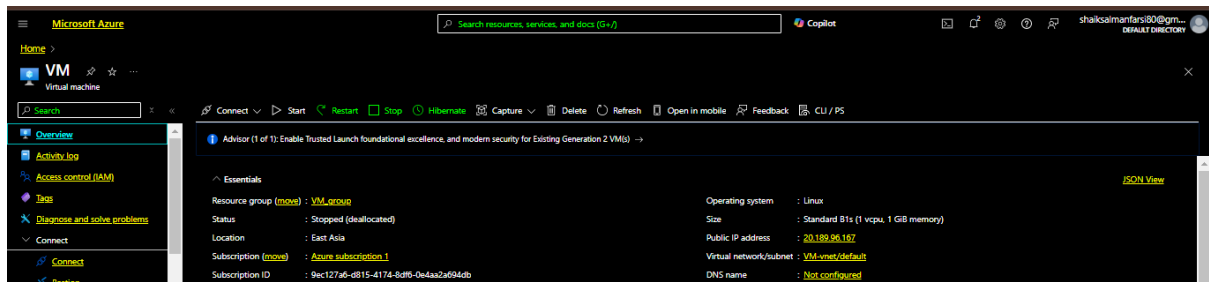
Stopped



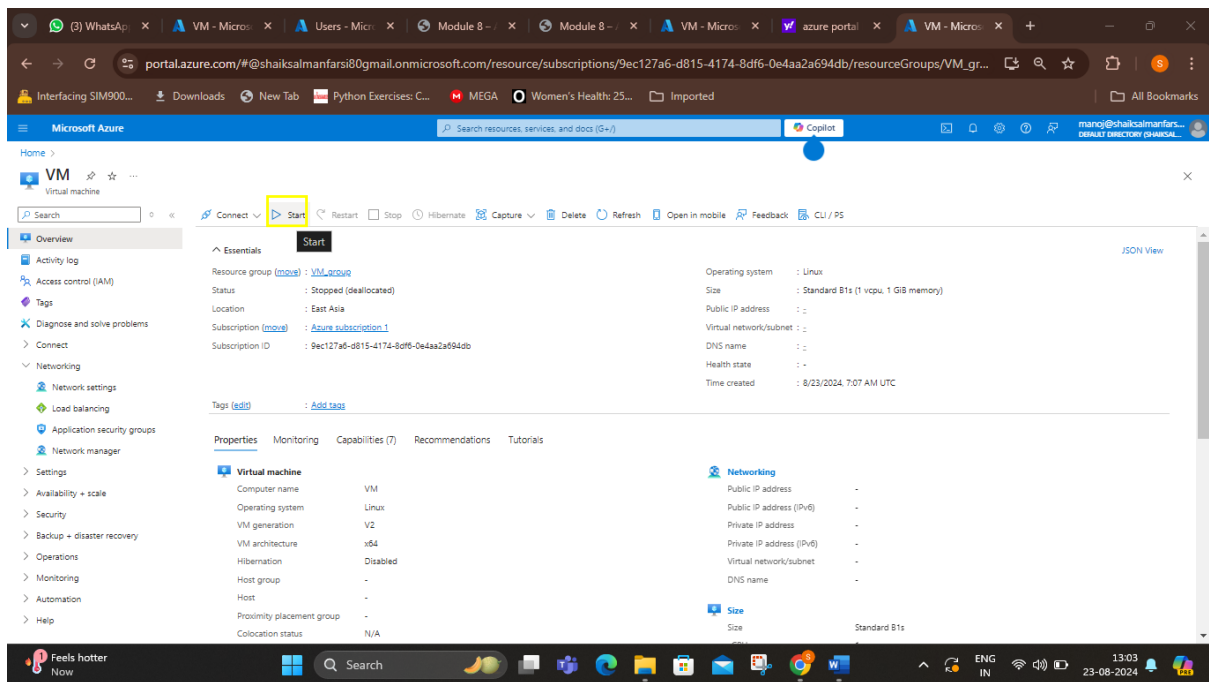
Stopped to sultan account also



For owner account also, Because we all from same Group



And Starting Machine from Manoj Account



Now its running Status

