

Assignment 1 and 2 only Active Directory & here also join client machine Domain

The screenshot shows three stacked browser windows illustrating the AWS Directory Service setup process:

- Top Window:** Shows the main Directory Service page under the Active Directory section. It features a large heading "Directory Service helps you store information and manage access to resources." A callout box titled "Set up directory" provides instructions on choosing a directory type, with "AWS Managed Microsoft AD" selected. A link "Not sure which type of directory you need?" is also present.
- Middle Window:** Shows the "Set up a directory - Step 1 Select directory type" page. The "Select directory type" step is highlighted. Under "Directory types", "AWS Managed Microsoft AD" is selected. A detailed description of "AWS Managed Microsoft AD" is provided, mentioning its use for enabling Active Directory-aware workloads in the AWS Cloud. Buttons for "Learn more" and "View use cases" are shown, along with "Cancel" and "Next" buttons.
- Bottom Window:** Shows the continuation of the setup process, likely Step 2 or later, with a similar layout to the middle window, though the specific content is less visible.

Screenshot of the AWS CloudShell interface showing the "Set up a directory - Step 2 Enter directory information" wizard.

The wizard is at Step 2: Enter directory information. It shows the following details:

- Directory type:** Microsoft AD
- Operating system version:** Windows Server 2019
- Edition:** Standard Edition (selected)
- Description of Standard Edition:** Best for small to medium sized businesses.
 - 1GB of storage for directory objects
 - Optimized for up to 30,000 objects
 - USD 100.8000/mo (USD 0.1400/hr)*
- Description of Enterprise Edition:** Best for large businesses.
 - 17GB of storage for directory objects
 - Optimized for up to 500,000 objects
 - USD 522.5600/mo (USD 0.4480/hr)*
 - * includes two domain controllers, USD 161.2800/mo for each additional domain controller.

The bottom of the screen shows the Windows taskbar with various pinned icons and the date/time (12:52 PM, 8/23/2024).

Dashboard | IAM | Global Set up a directory - Step 2 Enter Google Password Manager

ap-south-1.console.aws.amazon.com/directoryservicev2/home?region=ap-south-1#/create?directory_type=MicrosoftAD

mail.google.com Find Uid/Eid - Resid... Download DriverPac... Passport Seva Hom... NextStep-Tata Cons...

Mumbai Amit @ 6546-5453-4272

aws Services Search [Alt+S]

Directory description - optional
Descriptive text appears on the details page after the directory has been created.
Describe this directory

Maximum of 128 characters, can only contain alphanumerics, and the following characters: '_ @ # % * + = ; ? . / \ -'. It may not start with a special character.

Admin password
The password for the default administrative user named Admin.

Passwords must be between 8 and 64 characters, not contain the word "admin", and include three of these four categories: lowercase, uppercase, numeric, and special characters.

Confirm password

This password must match the Admin password above.

Cancel Previous Next

CloudShell Feedback Dashboard | IAM | Global Set up a directory - Step 3 Choose Set up a directory - Step 1 Select Google Password Manager

ap-south-1.console.aws.amazon.com/directoryservicev2/home?region=ap-south-1#/create?directory_type=MicrosoftAD

mail.google.com Find Uid/Eid - Resid... Download DriverPac... Passport Seva Hom... NextStep-Tata Cons...

Mumbai Amit @ 6546-5453-4272

aws Services Search [Alt+S]

Step 2 Enter directory information

Step 3 Choose VPC and subnets

Step 4 Review & create

Networking
The VPC that contains your directory. If you do not have a VPC with at least two subnets, you must create one.

VPC Info
vpc-0383d8465804f102f (172.31.0.0/16)
Create new VPC

Subnets Info
subnet-060de9bbf53151d2c (172.31.32.0/20, ap-south-1a)
subnet-0e75411ace966ebdc (172.31.0.0/20, ap-south-1b)
Create new subnet

Initial AD site name for this directory Info
Default-First-Site-Name

Cancel Previous Next

The screenshot shows the AWS CloudShell interface with the following details:

Region: ap-south-1

Service: Directory Service

Step 1 Selection: Set up a directory - Step 1 Selected

Directory Configuration:

- Directory DNS name: cloudoperations.com
- Directory NetBIOS name: -
- Directory description: -

Pricing:

- Edition: Standard
- Free trial eligible: Learn more
- 30-day limited trial
- Domain controllers charge: ~USD 100.8000/mo (USD 0.1400/hr)*
- * Includes two domain controllers, USD 50.4000/mo for each additional domain controller.

Buttons: Cancel, Previous, Create directory

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The screenshot shows the AWS CloudShell interface with the following details:

Region: ap-south-1

Service: Directory Service

Step 1 Selection: Set up a directory - Step 1 Selected

Message: Your directory cloudoperations.com (d-9f6771ed17) is being created! This can take up to 20-45 minutes. See Detail

Directory Service View:

Active Directory:

- Directories:** Directories shared with me

Directories Table:

Actions	Set up directory					
Edit	Set up directory					
Find by directory ID or name						
Directory ID	Directory name	Type	Size	Multi-Region	Status	Launch date
d-9f6771ed17	cloudoperations.com	Microsoft AD	Standard	Not applicable	Creating	Aug 23, 2024

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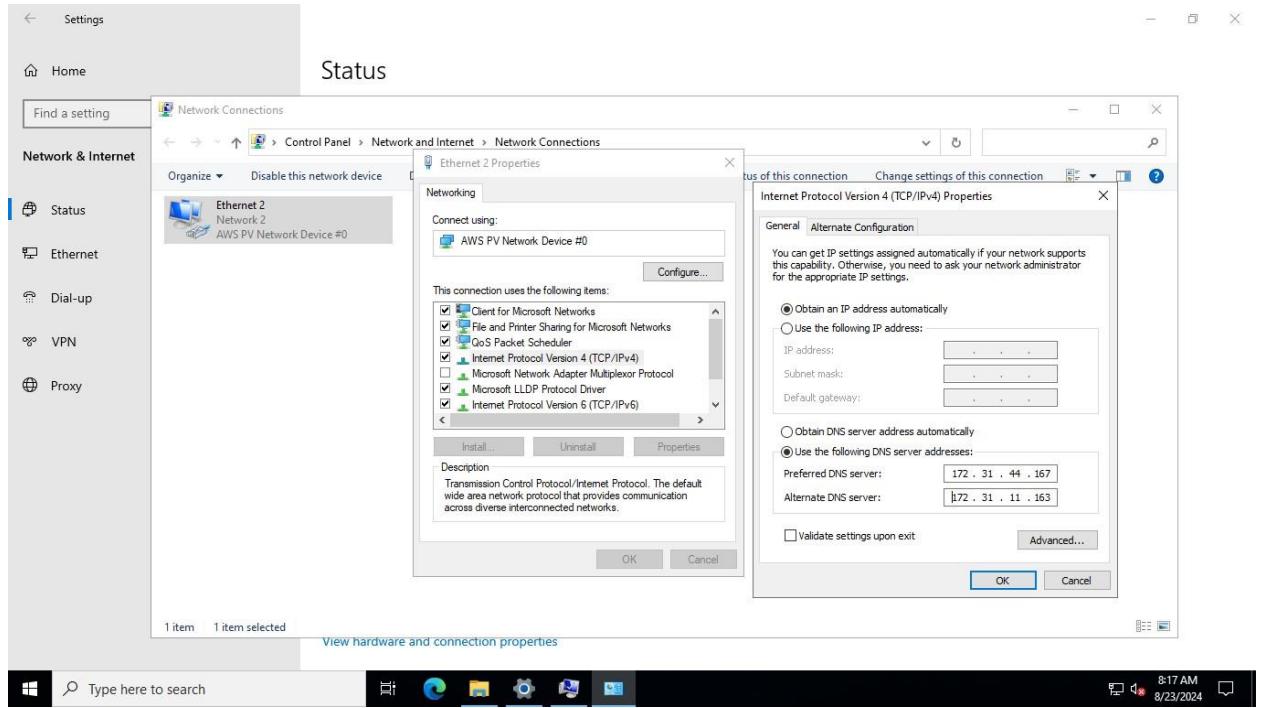
The screenshot shows the AWS Directory Service console. On the left, a sidebar titled 'Directory Service' has a 'Directories' section. The main area is titled 'Directories (1) Info' and shows a table with one row. The row details a Microsoft AD directory named 'cloudoperations.com' with a 'Standard' type, 'Not applicable' size, and 'Active' status. The 'Launch date' is Aug 23, 2024. A search bar at the top says 'Find by directory ID or name'. The bottom of the screen shows the Windows taskbar with various pinned icons.

Directory activate

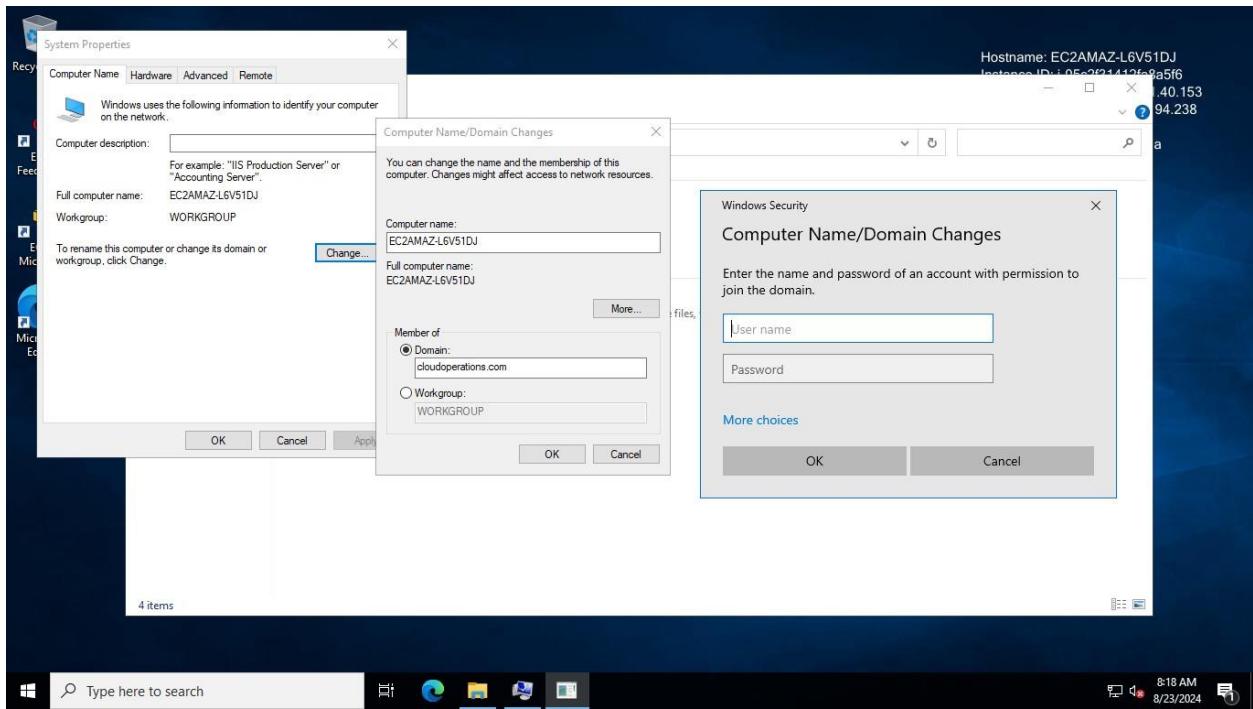
MFA Active In Directory

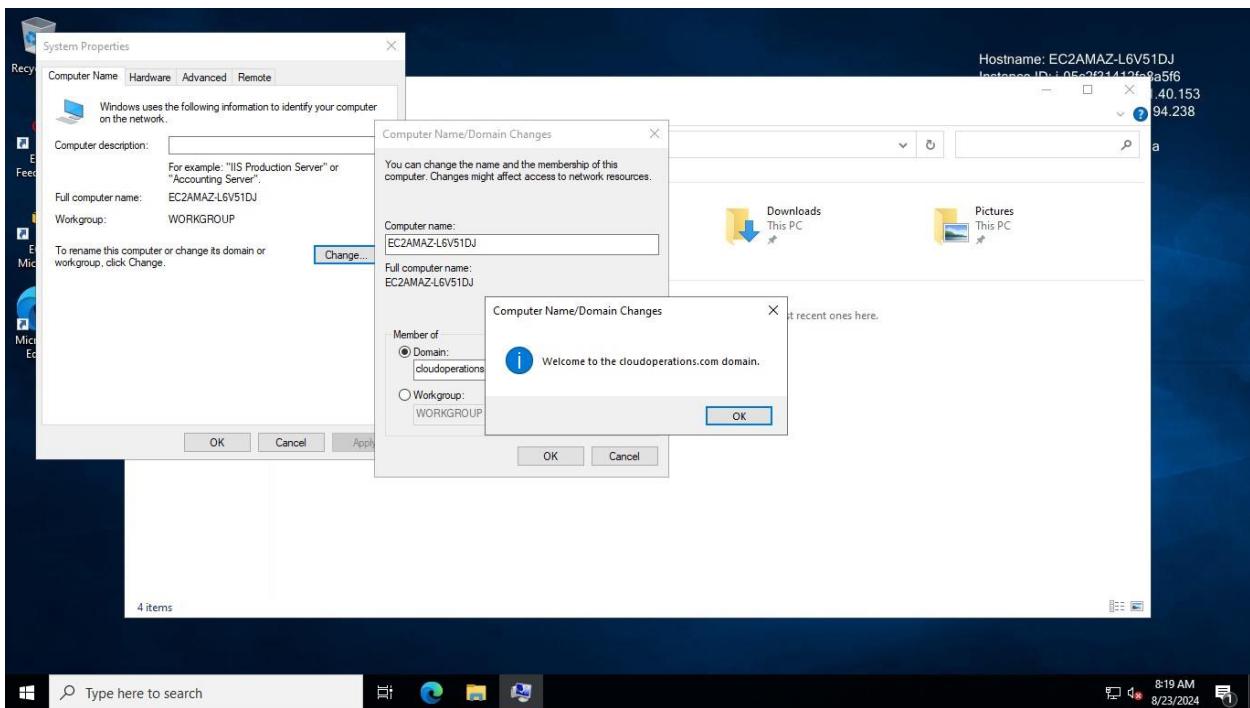
The screenshot shows the AWS Directory Service console. The left sidebar shows the 'Active Directory' section. The main area has two sections: 'Register certificate' and 'Multi-factor authentication'. The 'Register certificate' section displays a message stating 'No certificates have been registered yet' and 'Client-side LDAPS requires at least one registered certificate.' It includes a 'Register certificate' button. The 'Multi-factor authentication' section states that Microsoft AD supports multi-factor authentication by integrating with existing RADIUS infrastructures. It shows the 'RADIUS status' as '-' and has 'Enable', 'Edit', and 'Disable' options in a dropdown menu. The bottom of the screen shows the Windows taskbar.

Make VM and configure Directory



After this make domain

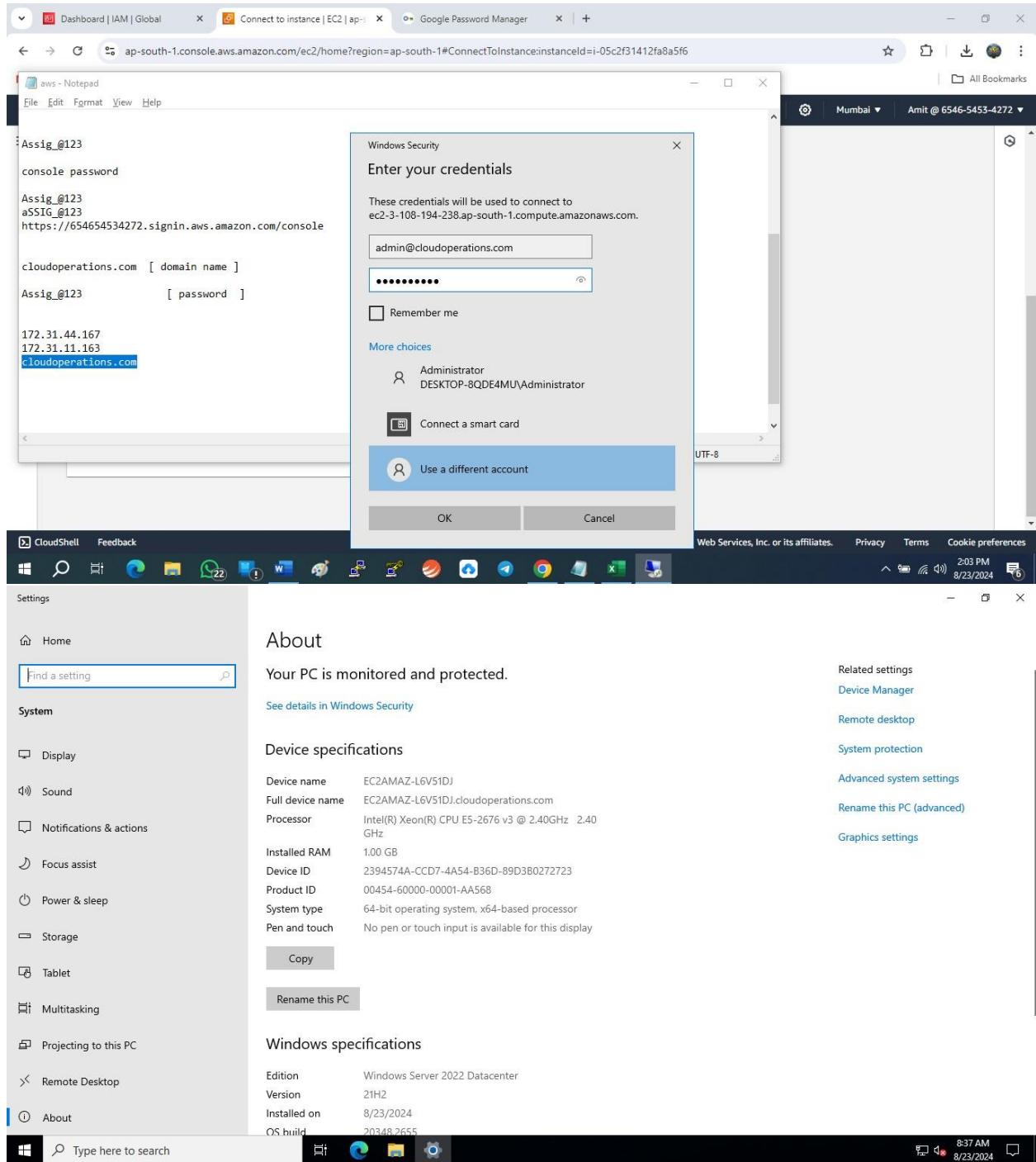




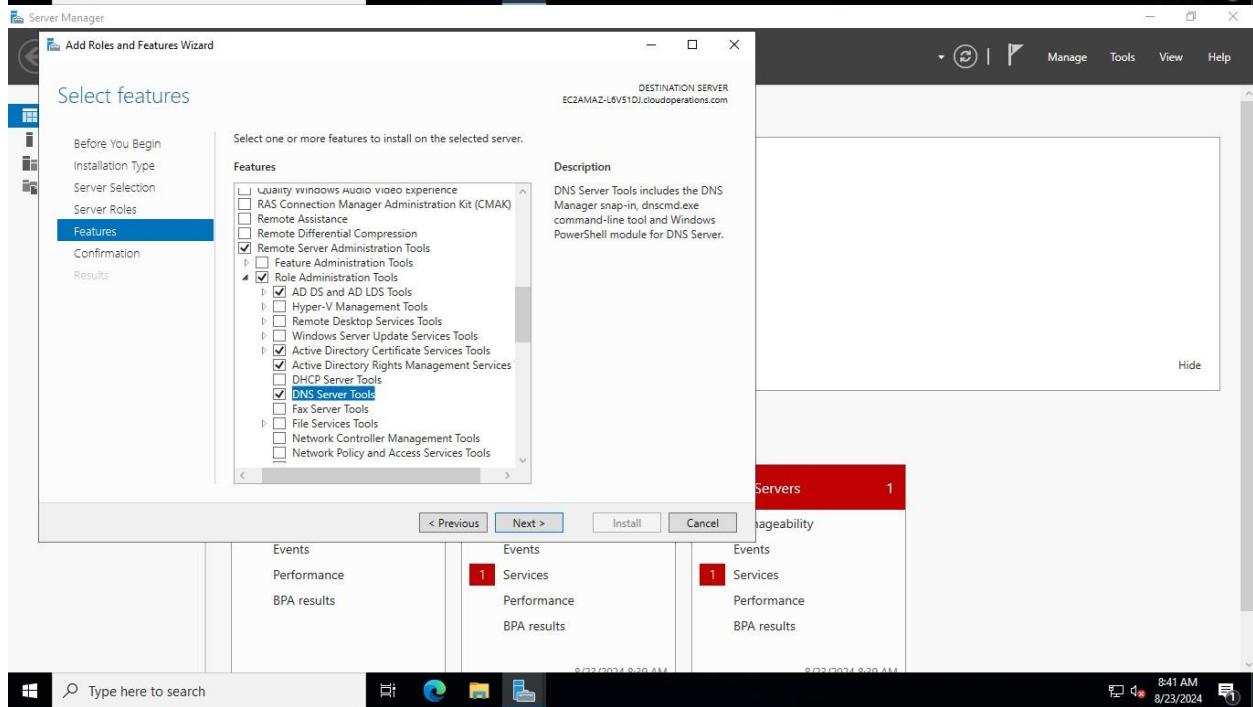
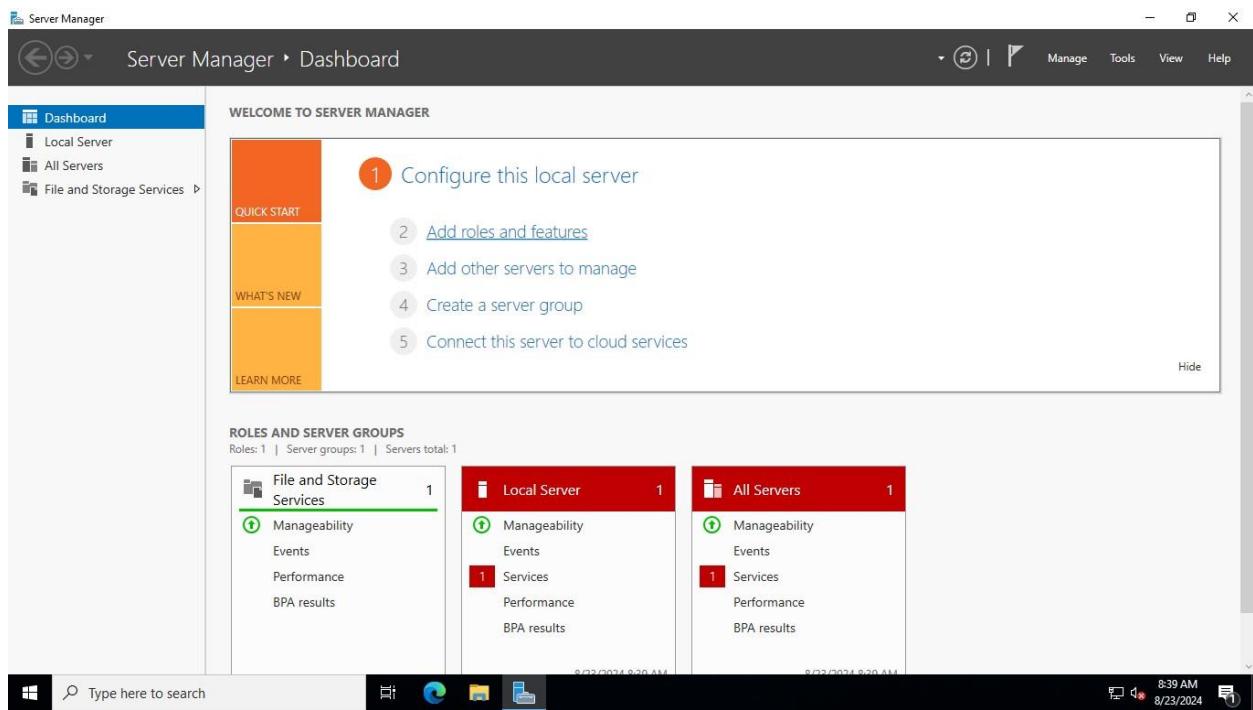
Automatically restart VM

Again Take RDP VM

Login direct client DOMAIN



ADD ROLES



Server Manager

Add Roles and Features Wizard

Installation progress

DESTINATION SERVER
EC2AMAZ-L6V51DJ.cloudoperations.com

View installation progress

Feature installation

Installation succeeded on EC2AMAZ-L6V51DJ.cloudoperations.com.

Remote Server Administration Tools

- Active Directory Rights Management Services Tools
- DNS Server Tools
- AD DS and AD LDS Tools
 - Active Directory module for Windows PowerShell
 - AD DS Tools
 - Active Directory Administrative Center
 - AD DS Snap-Ins and Command-Line Tools
 - AD LDS Snap-Ins and Command-Line Tools
 - Active Directory Certificate Services Tools

You can close this wizard without interrupting running tasks. View task progress or open this page again by clicking Notifications in the command bar, and then Task Details.

Export configuration settings

< Previous Next > Close Cancel

Servers 1

Manageability

Events Performance BPA results Events Services Performance BPA results Events Services Performance BPA results

8/23/2024 8:42 AM 8/23/2024 8:42 AM 8/23/2024 8:42 AM

Type here to search

8:43 AM 8/23/2024

Server Manager

Server Manager • Dashboard

Dashboard

Local Server All Servers File and Storage Services

WELCOME TO SERVER MANAGER

Configure this local server

- 1 Add roles and features
- 2 Add other servers to manage
- 3 Create a server group
- 4 Connect this server to cloud services

QUICK START

WHAT'S NEW

LEARN MORE

ROLES AND SERVER GROUPS

Roles: 1 | Server groups: 1 | Servers total: 1

File and Storage Services	Local Server	All Servers
1	1	1
Manageability	Manageability	Manageability
Events	Events	Events
Performance	Performance	Performance
BPA results	BPA results	BPA results

8/23/2024 8:42 AM 8/23/2024 8:42 AM 8/23/2024 8:42 AM

Manage Tools View Help

Active Directory Administrative Center

Active Directory Domains and Trusts

Active Directory Module for Windows PowerShell

Active Directory Rights Management Services

Active Directory Sites and Services

Active Directory Users and Computers

ADSI Edt

Certification Authority

Component Services

Computer Management

Defragment and Optimize Drives

Disk Cleanup

DNS

Event Viewer

iSCSI Initiator

Local Security Policy

ODBC Data Sources (32-bit)

ODBC Data Sources (64-bit)

Online Responder Management

Performance Monitor

Recovery Drive

Registry Editor

Resource Monitor

Services

System Configuration

System Information

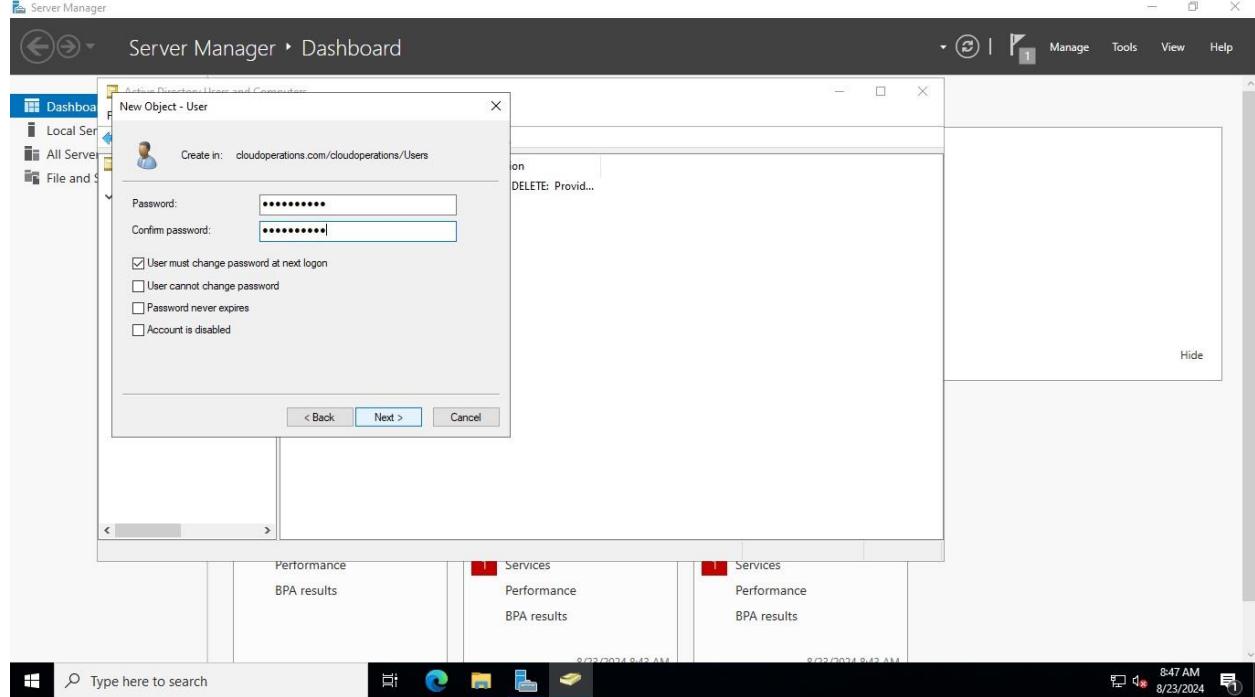
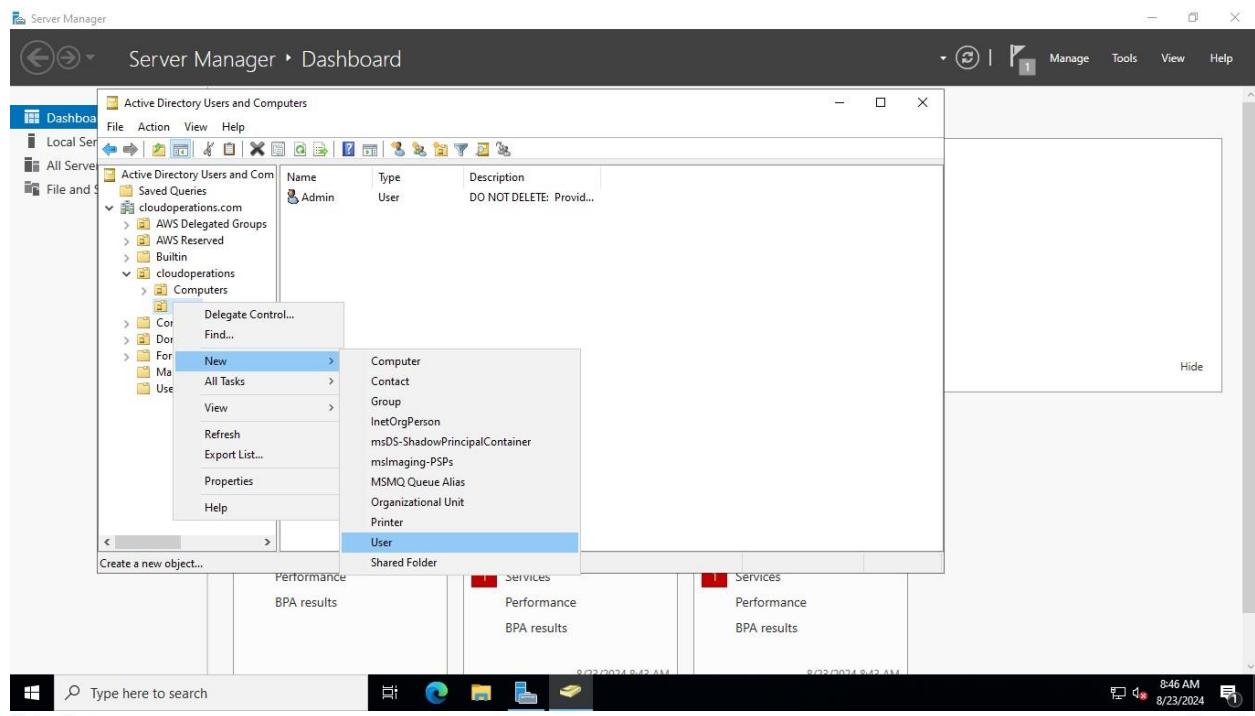
Task Scheduler

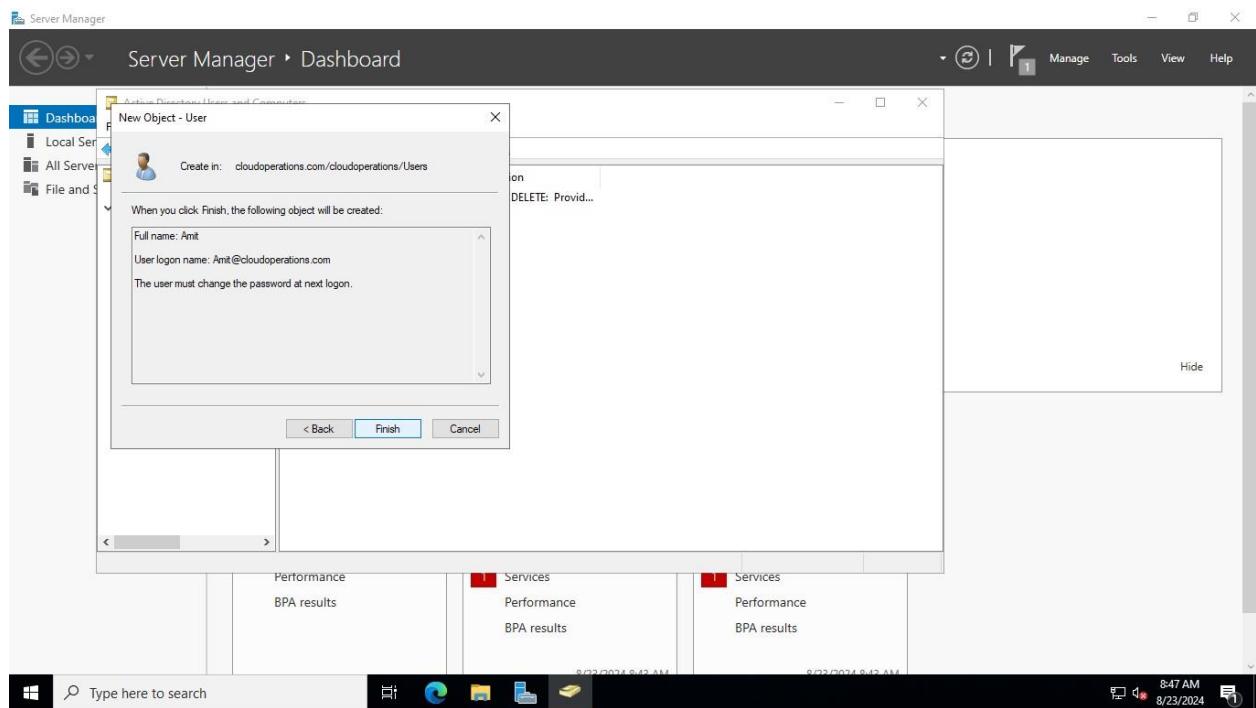
Windows Defender Firewall with Advanced Security

Windows Memory Diagnostic

Type here to search

8:44 AM 8/23/2024





Server Manager

Server Manager • Local Server

Active Directory Users and Computers

File Action View Help

Dashboard Local Server All Servers File and Storage Services

Active Directory Users and Computers

Name Type Description

Admin User DO NOT DELETE: Provided by Active Directory

Amit User

Cloud Operations

Saved Queries AWS Delegated Groups AWS Reserved Built-in Cloud Operations Computers Users Computers Domain Controllers Foreign Security Principals Managed Service Accounts Users

Last installed updates Update Never

Windows Update Never check for updates Never

Microsoft Defender Antivirus Real-Time Protection: On

Feedback & Diagnostics Settings

IE Enhanced Security Configuration On

Time zone (UTC) Coordinated Universal Time

Product ID 00454-60000-00001-AA568 (activated)

Processor Intel(R) Xeon(R) CPU E5-2676 v3 @ 2.40GHz

Installed memory (RAM) 1 GB

Total disk space 30 GB

Type here to search

Server Manager

Server Manager • Local Server

Properties For EC2AMAZ-L6V51DJ

Computer name EC2AMAZ-L6V51DJ

Domain cloudoperations.com

Last installed updates Never

Windows Update Never check for updates

Microsoft Defender Firewall Domain: On

Remote management Enabled

Remote Desktop Enabled

NIC Teaming Disabled

Ethernet 2 IPv4 address assigned by DHCP, IPv6 enabled

Azure Arc Management Disabled

Microsoft Defender Antivirus Real-Time Protection: On

Feedback & Diagnostics Settings

IE Enhanced Security Configuration On

Time zone (UTC) Coordinated Universal Time

Product ID 00454-60000-00001-AA568 (activated)

Operating system version Microsoft Windows Server 2022 Datacenter

Hardware information Xen HVM domU

Processors Intel(R) Xeon(R) CPU E5-2676 v3 @ 2.40GHz

Installed memory (RAM) 1 GB

Total disk space 30 GB

Events All events | 17 total

Filter

Server Name ID Severity Source Log Date and Time

EC2AMAZ-L6V51DJ 10016 Warning Microsoft-Windows-DistributedCOM System 8/23/2024 8:34:01 AM

EC2AMAZ-L6V51DJ 10016 Warning Microsoft-Windows-DistributedCOM System 8/23/2024 8:31:50 AM

EC2AMAZ-L6V51DJ 6038 Warning Microsoft-Windows-LSA System 8/23/2024 8:31:38 AM

Type here to search

Here we can ALSO Use MFA in Active DIRECTORY

The screenshot shows the AWS Directory Service console for an Active Directory instance. The left sidebar lists 'Active Directory' and 'Directories'. The main area displays settings for certificate registration, log forwarding, and multi-factor authentication.

Certificate registration:

- Table header: Certificate ID, Common name, Expiration date, Registration status
- Message: No certificates have been registered yet. Client-side LDAPS requires at least one registered certificate.
- Button: Register certificate

Log forwarding:

- Info: Forward domain controller security event logs to [Amazon CloudWatch Logs](#).
- Action: Enable

Multi-factor authentication:

- Info: Microsoft AD supports multi-factor authentication by integrating with your existing RADIUS multi-factor authentication infra.
- Status: RADIUS status -
- Action: Enable
- Action: Disable

At the bottom, the Windows taskbar shows various pinned icons like CloudShell, Feedback, File Explorer, Task View, Start, Taskbar settings, and a notification for 4 unread messages.

THIS PROJECT in AWS So MFA use in IAM[user]

The screenshot shows two windows side-by-side, both displaying the AWS IAM (Identity and Access Management) service.

Left Window (AWS IAM - Users):

- Header:** us-east-1.console.aws.amazon.com/iam/home?region=ap-south-1#/users
- Toolbar:** Back, Forward, Refresh, Search, Bookmarks, Global, Amit.
- Sidebar:** Identity and Access Management (IAM) - Search IAM, Dashboard, Access management (User groups, Users, Roles, Policies, Identity providers, Account settings), Access reports (Access Analyzer, External access, Unused access, Analyzer settings).
- Main Content:** **Users (0) Info**. An IAM user is an identity with long-term credentials that is used to interact with AWS in an account. A search bar and a table header row (User name, Path, Group, Last activity, MFA, Password age, Console last sign-in) are shown. Below the table, it says "No resources to display".
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Right Window (AWS IAM - Create user):

- Header:** us-east-1.console.aws.amazon.com/iam/home?region=ap-south-1#/users/create
- Toolbar:** Back, Forward, Refresh, Search, Bookmarks, Global, Amit.
- Sidebar:** IAM > Users > Create user. Step 1: Specify user details (User name: Amit, Provide user access to the AWS Management Console - optional checked). Step 2: Set permissions (User type: Specify a user in Identity Center - Recommended). Step 3: Review and create. Step 4: Retrieve password.
- Main Content:** **Specify user details**. **User details** section: User name (Amit), Provide user access to the AWS Management Console - optional (checked). **Are you providing console access to a person?** section: User type (Specify a user in Identity Center - Recommended), I want to create an IAM user (selected). A note states: "We recommend that you create IAM users only if you need to enable programmatic access through access keys, service-specific credentials for AWS CodeCommit or Amazon Keyspaces, or a backup credential for emergency account access."
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Create user | IAM | Global

Google Password Manager

us-east-1.console.aws.amazon.com/iam/home?region=ap-south-1#/users/create

mail.google.com FindUid/Eid - Resid... Download DriverPac... Passport Seva Hom... NextStep-Tata Cons...

All Bookmarks

aws Services Search [Alt+S]

I want to create an IAM user

We recommend that you create IAM users only if you need to enable programmatic access through access keys, service-specific credentials for AWS CodeCommit or Amazon Keyspaces, or a backup credential for emergency account access.

Console password

Autogenerated password
You can view the password after you create the user.

Custom password
Enter a custom password for the user.

Must be at least 8 characters long
Must include at least one uppercase letter (A-Z)
Must include at least one lowercase letter (a-z)
Must include at least one number (0-9)
Must include at least one non-alphanumeric character (! @ # \$ % ^ & * () _ + = [] { } |)

Show password

Users must create a new password at next sign-in - Recommended

If you are creating programmatic access through access keys or service-specific credentials for AWS CodeCommit or Amazon Keyspaces, you can generate them after you create this IAM user. [Learn more](#)

The screenshot shows the AWS IAM User Creation process at Step 2: Set permissions. The left sidebar lists steps: Step 1 (Specify user details), Step 2 (Set permissions, currently selected), Step 3 (Review and create), and Step 4 (Retrieve password). The main content area is titled "Set permissions" with the sub-instruction "Add user to an existing group or create a new one. Using groups is a best-practice way to manage user's permissions by job functions. Learn more". Below this is a "Permissions options" section with three radio button choices:

- Add user to group: "Add user to an existing group, or create a new group. We recommend using groups to manage user permissions by job function."
- Copy permissions: "Copy all group memberships, attached managed policies, and inline policies from an existing user."
- Attach policies directly: "Attach a managed policy directly to a user. As a best practice, we recommend attaching policies to a group instead. Then, add the user to the appropriate group."

Below this is a "Permissions policies" section showing a table of policies:

Policy name	Type	Attached entities
<input checked="" type="checkbox"/> AdministratorAccess	AWS managed - job function	0
<input type="checkbox"/> AdministratorAccess-Amplify	AWS managed	0

Screenshot of a web browser showing the AWS IAM "Create user" wizard. The user is on Step 3: Review and create.

Review and create

Review your choices. After you create the user, you can view and download the autogenerated password, if enabled.

User details

User name	Console password type	Require password reset
Amit	Custom password	Yes

Permissions summary

Name	Type	Used as
AdministratorAccess	AWS managed - job function	Permissions policy

Tags - optional

Tags are key-value pairs you can add to AWS resources to help identify, organize, or search for resources. Choose any tags you want to associate with this user.

No tags associated with the resource.

User created successfully

You can view and download the user's password and email instructions for signing in to the AWS Management Console.

Retrieve password

You can view and download the user's password below or email users instructions for signing in to the AWS Management Console. This is the only time you can view and download this password.

Console sign-in details

Console sign-in URL	Email sign-in instructions
https://654654534272.signin.aws.amazon.com/console	Email sign-in instructions
User name	
Amit	
Console password	***** Show

Cancel Download .csv file Return to users list

The screenshot shows two browser windows side-by-side. The left window displays the AWS IAM 'Users' page, where a new user named 'Amit' has been successfully created. A green banner at the top of the page states 'User created successfully'. The right window shows the AWS 'Console Home' page, which includes links for IAM Identity Center, Billing and Cost Management, EC2, Directory Service, and IAM, along with sections for Applications, Account, Organization, Service Quotas, and Security credentials.

Enable MFA

Click add MFA

The screenshot shows the AWS IAM Dashboard. On the left, a sidebar lists navigation options like Dashboard, Access management, and Access reports. The main area displays 'Security recommendations' with three items: 'Root user has MFA' (green checkmark), 'Add MFA for yourself' (yellow warning icon), and 'Your user, Amit, does not have any active access keys that have been unused for more than a year.' (green checkmark). To the right, there's a section for the 'AWS Account' with details such as Account ID (654654534272) and Sign-in URL (https://654654534272.signin.aws.amazon.com/console). A 'Quick Links' sidebar on the far right provides links to My security credentials and other AWS services.

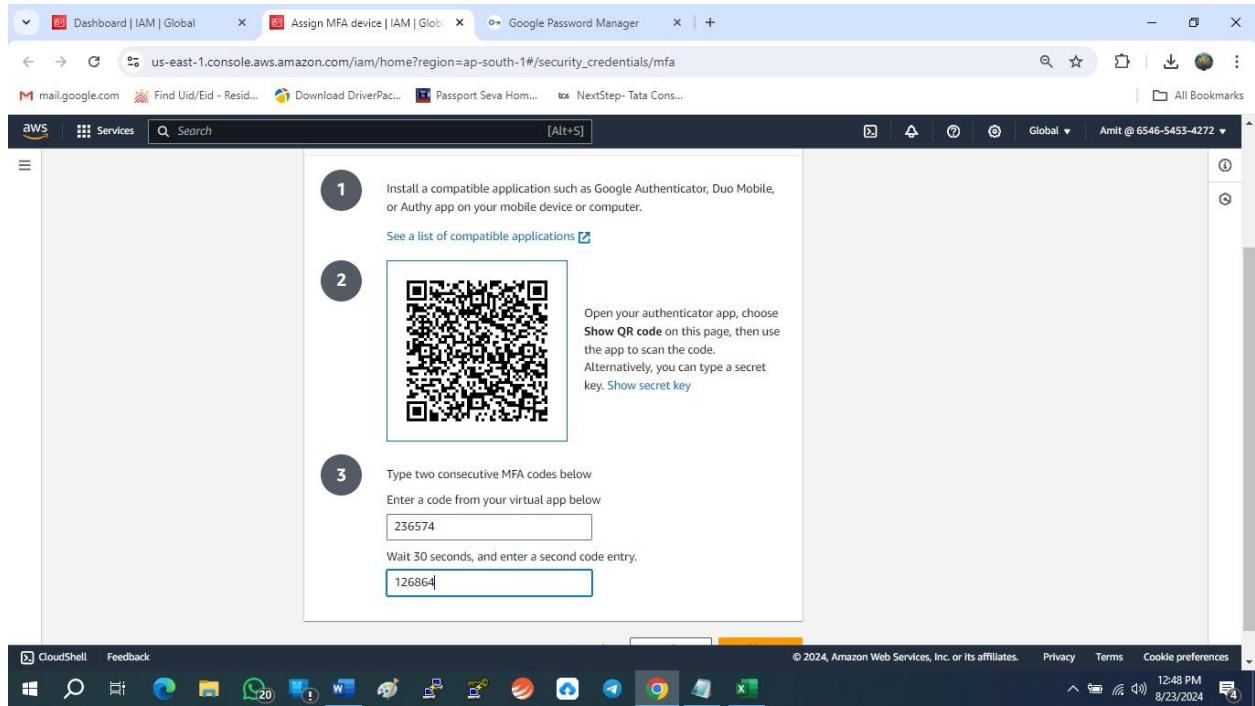
Enter device name

Select device

The screenshot shows the 'Assign MFA device' page. It starts with a 'Device name' input field where 'Amit' is entered. Below it, the 'MFA device' section offers three options: 'Passkey or security key' (using fingerprint, face, or screen lock), 'Authenticator app' (using a code from an app like Google Authenticator), and 'Hardware TOTP token' (using a physical hardware token). The bottom of the screen shows the Windows taskbar with various pinned icons.

Scan QR

Enter code two times



TASK 2

In Aws BLOB Storage Not Available Then I Map Another Storage [drive]

Here only we have default storage

Server Manager

Server Manager • File and Storage Services • Volumes • Disks

DISKS

Number	Virtual Disk	Status	Capacity	Unallocated	Partition	Read Only	Clustered	Subsystem	Bus Type	Name
0	EC2AMAZ-L6V51DJ (1)	Online	30.0 GB	0.00 B	MBR			SAS	AWS PVDISK	

Last refreshed on 8/23/2024 9:12:10 AM

VOLUMES

Volume	Status	Provisioning	Capacity	Free Space	Deduplication Rate	Dedu
C:	Fixed	30.0 GB	13.3 GB			

STORAGE POOL

AWS PVDISK on EC2AMAZ-L6V51DJ	
No related storage pool exists.	

Type here to search

9:12 AM 8/23/2024

Server Manager

Server Manager • File and Storage Services • Volumes • Disks

File Computer View

Disks

This PC

Folders (7)

- 3D Objects
- Desktop
- Documents
- Downloads
- Music
- Pictures
- Videos

Devices and drives (1)

- Local Disk (C): 13.3 GB free of 29.9 GB

8 items

Type here to search

9:12 AM 8/23/2024

We can create volume 1st

The screenshot shows the AWS EC2 Volumes page. A success message at the top says "Successfully created volume vol-0cb253f1c7909c8a1.". Below it, the "Volumes (2) info" section displays two volumes:

Name	Volume ID	Type	Size	IOPS	Throughput	Snapshot ID	Create
-	vol-07c2fa2bf276574fb	gp2	30 GiB	100	-	snap-04ed913...	2024/
-	vol-0cb253f1c7909c8a1	gp3	10 GiB	3000	125	-	2024/

Below the table, a modal window titled "Fault tolerance for all volumes in this Region" is open, showing a "Snapshot summary" section with "0 / 1" recently backed up volumes.

We attach storage to instance

The screenshot shows the AWS Attach volume page. It has a "Basic details" section where a volume is being mapped to an instance. The "Volume ID" is set to "vol-0cb253f1c7909c8a1 (map volume)". The "Availability Zone" is "ap-south-1a". The "Instance" dropdown contains "i-05c2f31412fa8a5f6". The "Device name" dropdown contains "xvdb". A note at the bottom says "Recommended device names for Windows: /dev/sda1 for root volume. xvdf[ff-p] for data volumes."

Over volume show in VM

The screenshot shows the Windows Server Manager interface under File and Storage Services > Volumes > Disks. The left navigation pane includes Servers, Volumes, Disks (which is selected), and Storage Pools. The main area displays two disks:

Number	Virtual Disk	Status	Capacity	Unallocated	Partition	Read Only	Clustered	Subsystem	Bus Type	Name
0	EC2AMAZ-L6V51DJ (2)	Online	30.0 GB	0.00 B	MBR			SAS	AWS PVDSK	
1		Offline	10.0 GB	10.0 GB	Unknown	✓		SAS	AWS PVDSK	

Below the disks, the Volumes section shows one related volume (C:):

Volume	Status	Provisioning	Capacity	Free Space	Deduplication Rate	Dedu
C:	Fixed	30.0 GB	13.5 GB			

The Storage Pool section indicates "No related storage pool exists". The taskbar at the bottom shows the date and time as 8/23/2024 9:17 AM.

We go online this volume as a drive Click on 10 gb drive and bring after online the volume then make a drive

The screenshot shows the "New Volume Wizard" Confirmation screen. The left navigation pane includes Before You Begin, Server and Disk, Size, Drive Letter or Folder, File System Settings, Confirmation (which is selected), and Results. The main area displays the following settings:

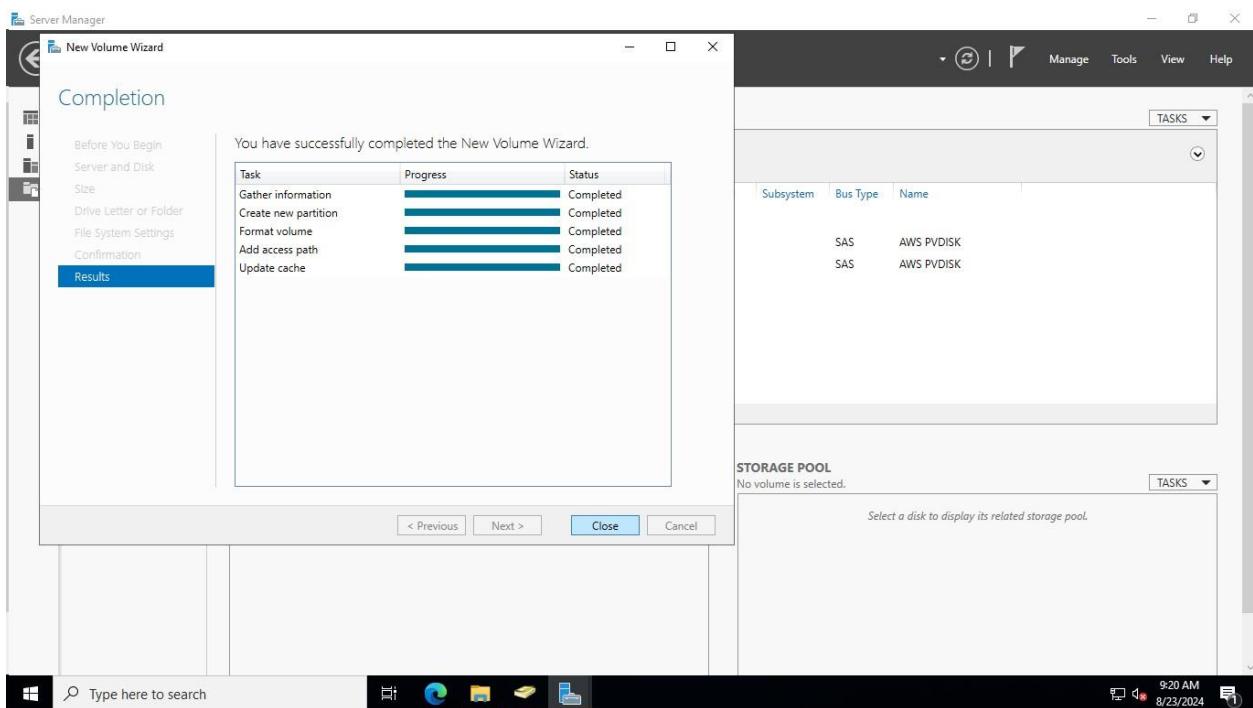
VOLUME LOCATION	
Server:	EC2AMAZ-L6V51DJ
Disk:	Disk 1
Free space:	10.0 GB

VOLUME PROPERTIES	
Volume size:	9.97 GB
Drive letter or folder:	D:\
Volume label:	New Drive

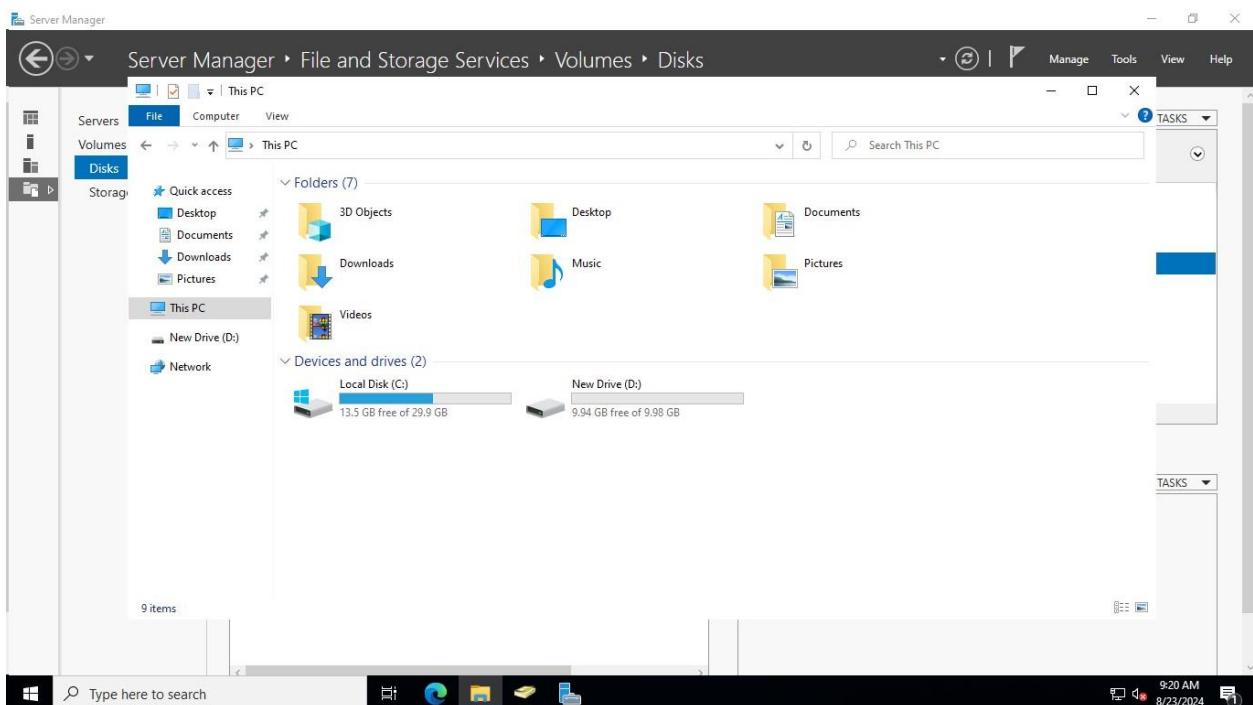
FILE SYSTEM SETTINGS	
File system:	NTFS
Short file name creation:	Disabled
Allocation unit size:	Default

At the bottom, there are buttons for < Previous, Next >, Create (which is highlighted in blue), and Cancel. A note at the bottom center says "To create a volume, start the New Volume Wizard." The taskbar at the bottom shows the date and time as 8/23/2024 9:19 AM.

After Create Our drive is map



Finally new drive map



TASK 3

365 Bussiness basic

- OFFICE APPS (WEB AND MOBILE ONLY)
- EMAIL AND CALANDER (50GB)
- FILE STORAGE (1TB)
- COLLABORATION TOOLS (TEAMS AND ONLINEMEETINGS CHAT ETC.)
- INTRANET MANAGEMENT
- BASIC SECURITY FEATURES

STANDARD

- OFFICE APPS (DESKTOP , WEB AND MOBILE)
- COLLABORATION TOOLS (TEAMS AND ONLINEMEETINGS CHAT , SHARE POINTS ETC.)
- Bussiness apps [ms booking and scheduling , planner for task management]
- In security add business basic + some more features

Enterprise

- Scalability
- Advance security
- Administartions tools + Support
- Power BI pro, endpoint manager etc.
- More comprehensive collaborations like yammer , enhance teamwork etc.