

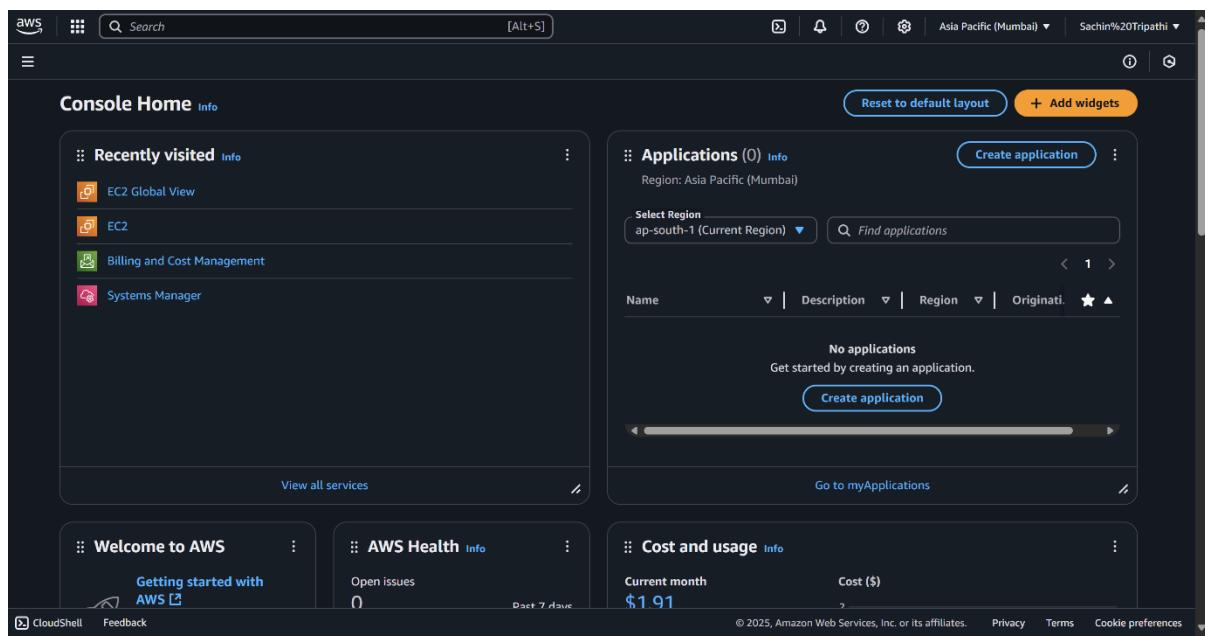
AWS EC2 – MICROSOFT WINDOWS SERVER

Introduction:- Amazon EC2 (Elastic Compute Cloud) is a web service offered by AWS that allows users to run virtual machines, known as instances, in the cloud. On a Microsoft Windows operating system, EC2 provides the flexibility to launch Windows-based servers remotely with scalable computing power. Users can choose different instance types based on their performance needs and budget. EC2 supports RDP (Remote Desktop Protocol) to access Windows instances just like a local computer. It is widely used for hosting websites, running enterprise applications, and development/testing in a secure and cost-effective way.

Step By Step Instructions:-

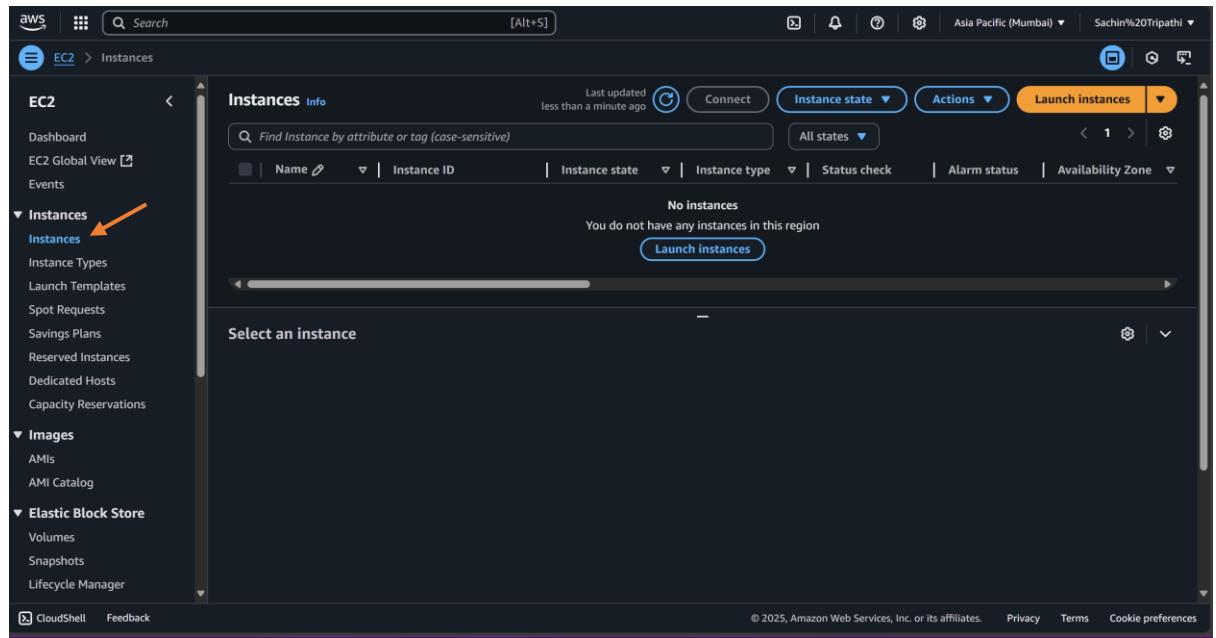
Step 1:-

- Go to the Home screen on AWS website.



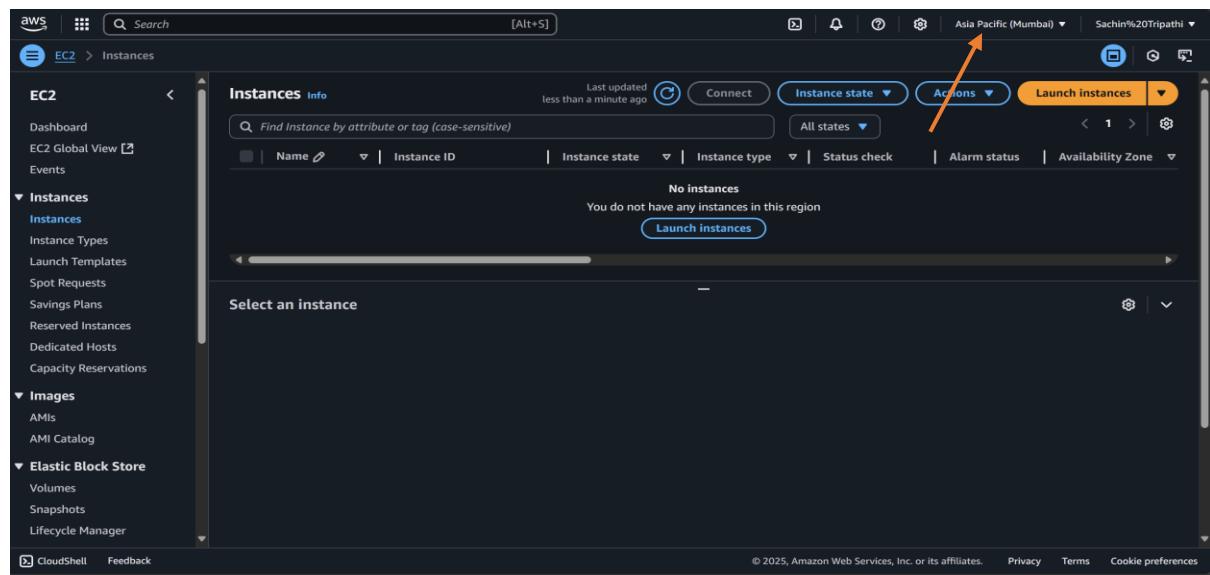
Step 2:-

- Search for EC2.
- Then click on Instances.



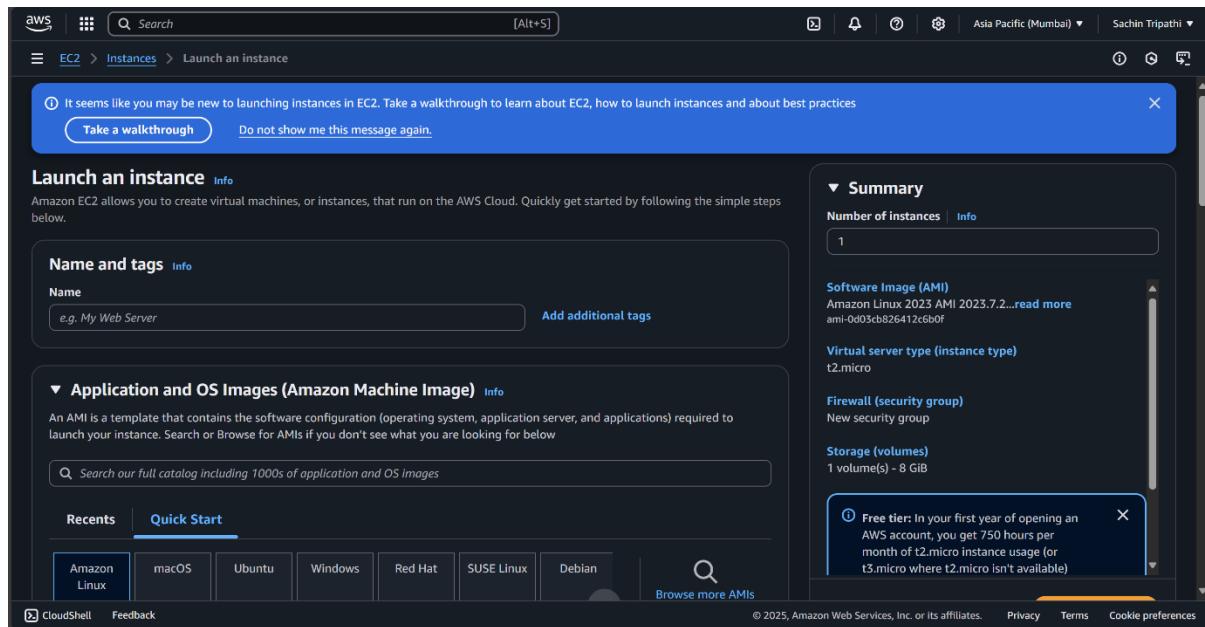
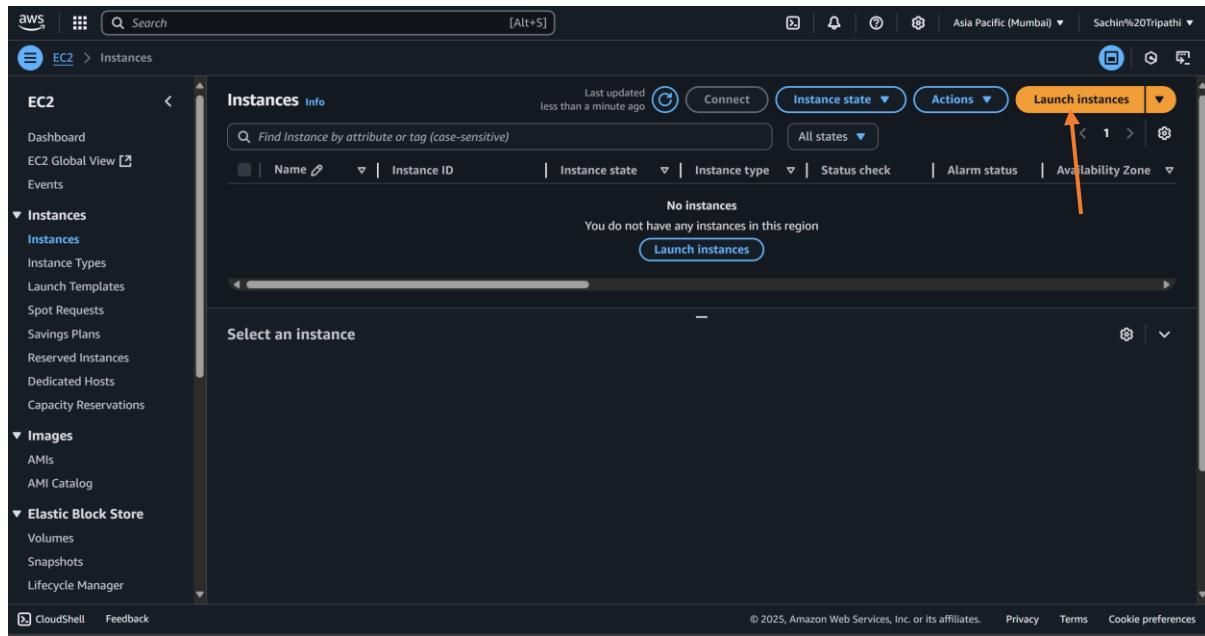
Step 3:-

- Select region.



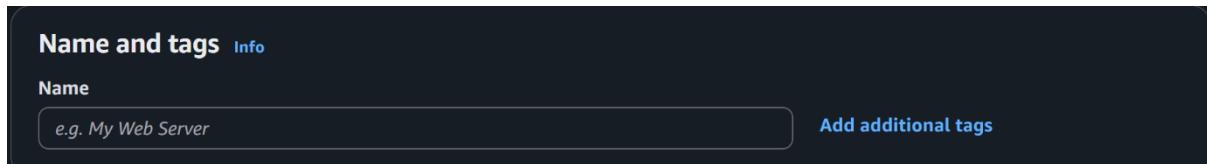
Step 4:-

- Click on “Launch instances”.



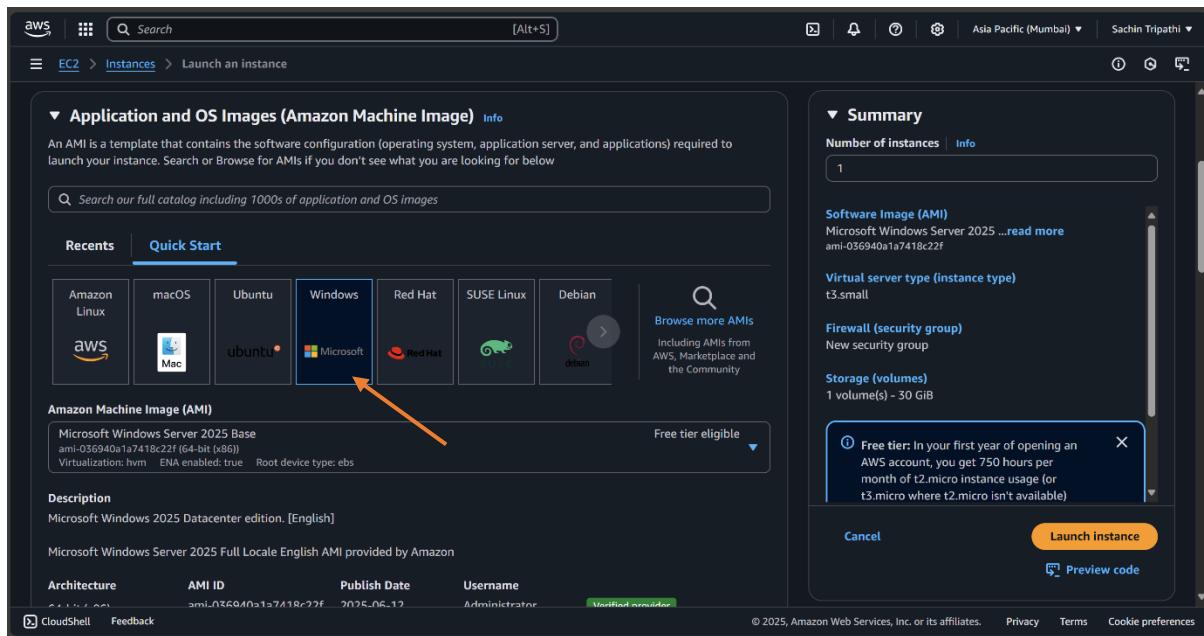
Step 5:-

- Write the name of the server.



Step 6:-

- Choose Application and OS Image(Amazon machine Image).



Step 7:-

- Use t2 micro or any type .
- Consider your instances type according to your need like for high computing choose more CPU and for more speed choose more RAM.

Instance type [Info](#) | [Get advice](#)

Instance type

t3.small
Family: t3 2 vCPU 2 GiB Memory Current generation: true
On-Demand SLICE base pricing: 0.0534 USD per Hour
On-Demand RHEL base pricing: 0.0512 USD per Hour
On-Demand Ubuntu Pro base pricing: 0.0259 USD per Hour
On-Demand Windows base pricing: 0.0408 USD per Hour
On-Demand Linux base pricing: 0.0224 USD per Hour

Additional costs apply for AMIs with pre-installed software

All generations [Compare instance types](#)

Summary
Number of instances | [Info](#)
1

Software Image (AMI)
Microsoft Windows Server 2025 ...[read more](#)
ami-036940a1a7418c22f

Virtual server type (instance type)
t3.small

Firewall (security group)
New security group

Storage (volumes)
1 volume(s) - 30 GiB

Free tier: In your first year of opening an AWS account, you get 750 hours per month of t2.micro instance usage (or t3.micro where t2.micro isn't available)

[Cancel](#) [Launch instance](#) [Preview code](#)

Q

t3.micro
Family: t3 2 vCPU 1 GiB Memory Current generation: true
On-Demand Ubuntu Pro base pricing: 0.0147 USD per Hour
On-Demand Linux base pricing: 0.0112 USD per Hour
On-Demand RHEL base pricing: 0.04 USD per Hour
On-Demand SUSE base pricing: 0.0112 USD per Hour
On-Demand Windows base pricing: 0.0204 USD per Hour

t3.small
Family: t3 2 vCPU 2 GiB Memory Current generation: true
On-Demand SUSE base pricing: 0.0534 USD per Hour
On-Demand RHEL base pricing: 0.0512 USD per Hour
On-Demand Ubuntu Pro base pricing: 0.0259 USD per Hour
On-Demand Windows base pricing: 0.0408 USD per Hour
On-Demand Linux base pricing: 0.0224 USD per Hour

t3.medium
t3.small
Family: t3 2 vCPU 2 GiB Memory Current generation: true
On-Demand SUSE base pricing: 0.0534 USD per Hour
On-Demand RHEL base pricing: 0.0512 USD per Hour
On-Demand Ubuntu Pro base pricing: 0.0259 USD per Hour
On-Demand Windows base pricing: 0.0408 USD per Hour
On-Demand Linux base pricing: 0.0224 USD per Hour

Additional costs apply for AMIs with pre-installed software

Verified provider

All generations [Compare instance types](#)

Step 8:-

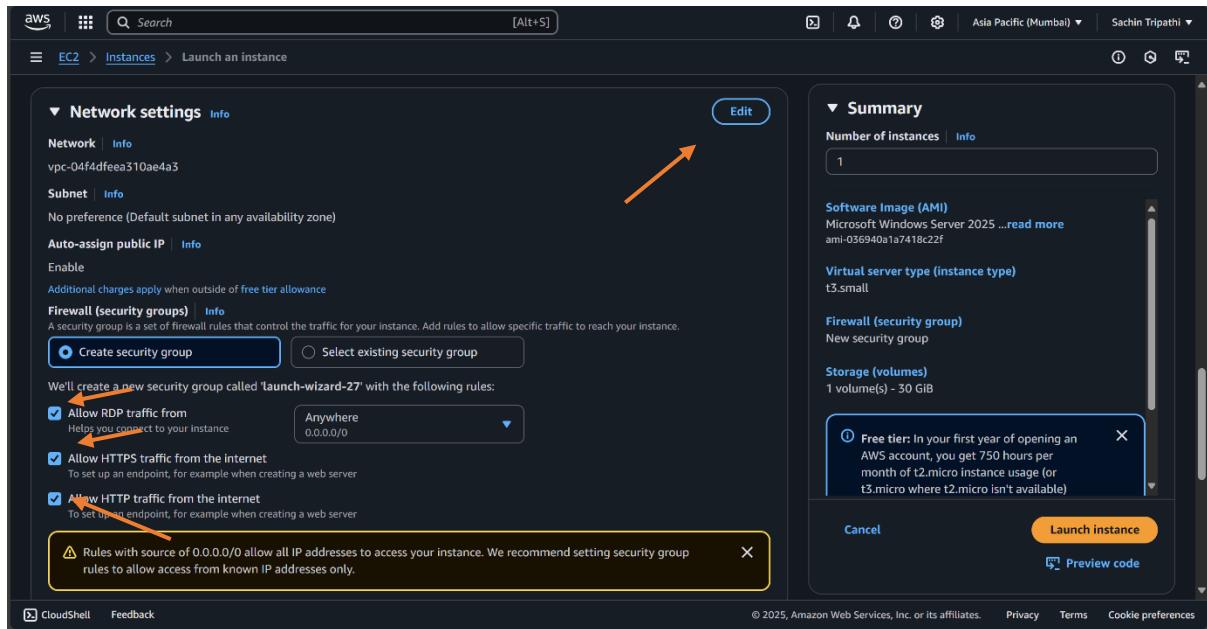
- Create new key pair or use old keypairs.
- For creating new keypair click on create new keypair.
- Enter the name of keypair. For Ex:-hellothisiskeypair.
- Choose keypair type RSA.
- Choose private key format .PEM(for use with open SSH).
- Create key pair.

The screenshot shows the AWS EC2 Instances launch wizard. In the 'Key pair (login)' section, there is a dropdown menu labeled 'Select' with an orange arrow pointing to it. Below the dropdown, a note says: 'For Windows instances, you use a key pair to decrypt the administrator password. You then use the decrypted password to connect to your instance.' In the 'Network settings' section, there are tabs for 'Network' (selected), 'Subnet', and 'Auto-assign public IP'. The 'Network' tab shows a VPC and subnet selection. On the right side of the screen, there is a summary panel with details like Software Image (AMI), Virtual server type (t3.small), Firewall (New security group), and Storage (1 volume - 50 GiB). A modal window titled 'Free tier' is open, providing information about the free tier allowance.

The screenshot shows the 'Create key pair' dialog box. It has fields for 'Key pair name' (set to 'hellothisiskeypair'), 'Key pair type' (set to 'RSA'), and 'Private key file format' (set to '.pem'). There is also a warning message: 'When prompted, store the private key in a secure and accessible location on your computer. You will need it later to connect to your instance.' At the bottom are 'Cancel' and 'Create key pair' buttons, with an orange arrow pointing to the 'Create key pair' button. Below the dialog, a file download interface shows a file named 'hellothisiskeypair.pem' with an 'Open file' link, and the 'Downloads' summary panel at the bottom.

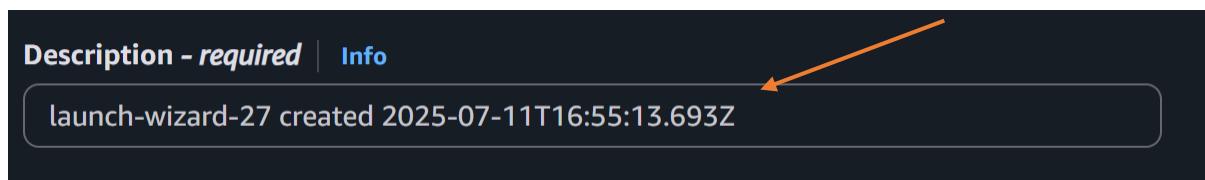
Step 9:-

- Click on port SSH, HTTP, HTTPS.
- Goto Edit.



Step 10:-

- Goto Description - required.
- Write “SG1”.



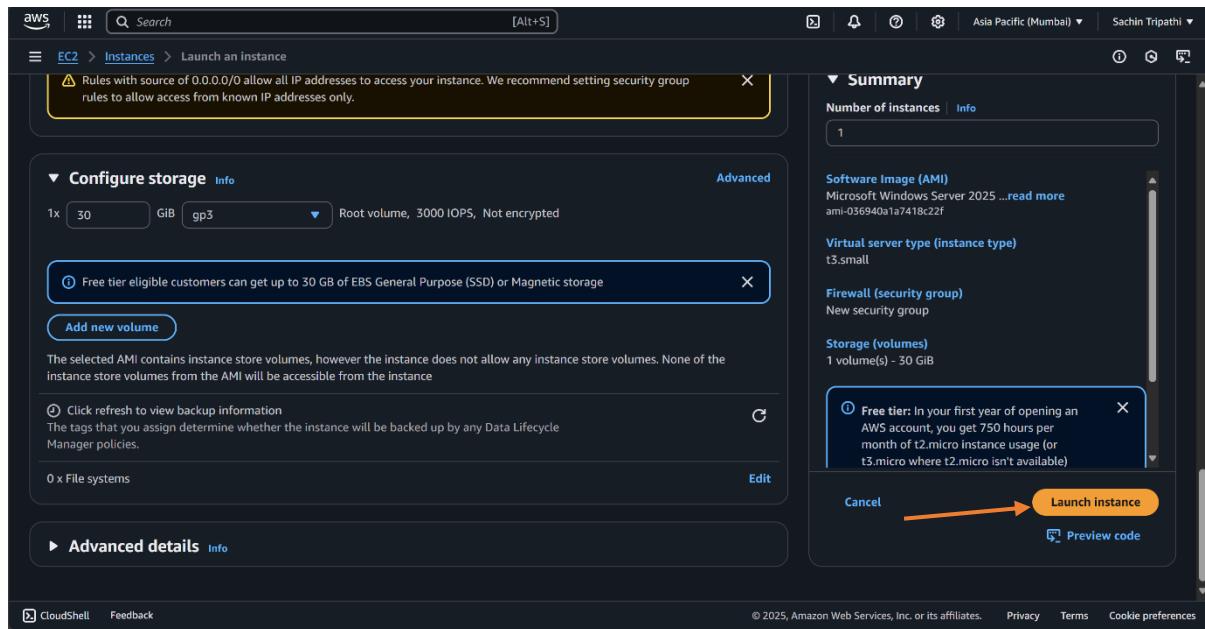
Step 11:-

- Click on “Add security group rule”.
- Goto “Type”->Select “All Traffic”.
- Goto “Source Type”->Choose “Anywhere”.

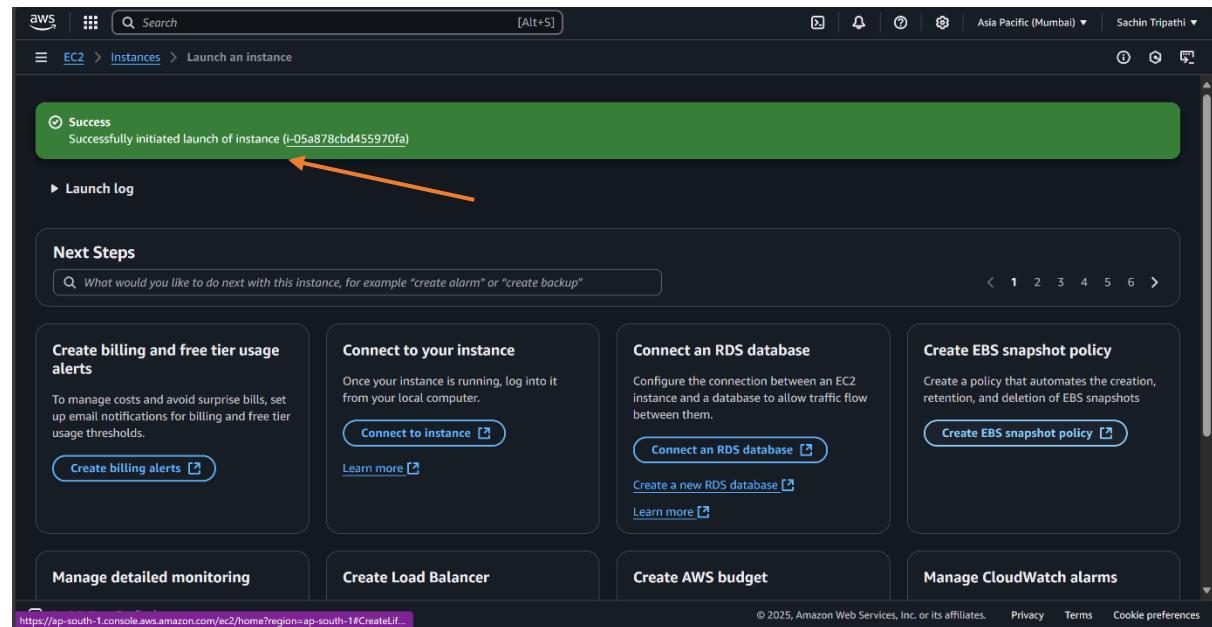
A screenshot of the "Type" section of a security group rule configuration. It shows "Custom TCP" selected under "Type", "TCP" under "Protocol", and "0" under "Port range". The "Source type" dropdown is set to "Custom". A search bar for "Source" contains the placeholder "Add CIDR, prefix list or security group". A description field says "e.g. SSH for admin desktop". At the bottom is another "Add security group rule" button, also highlighted with an orange arrow.A screenshot of the expanded "Type" dropdown menu. Options include "All UDP", "All ICMP - IPv4", "All ICMP - IPv6", "All traffic", "ssh", "SMTP", "DNS (UDP)", "DNS (TCP)", and "HTTP". The "All traffic" option is currently selected. An orange arrow points from the previous screenshot's "Add security group rule" button here. At the bottom right of this section is an "Advanced" button.A screenshot of the "Source type" section of the security group rule configuration. It shows "Custom" selected under "Source type". A dropdown menu lists "Anywhere", "Custom", and "My IP", with "Custom" currently selected. An orange arrow points from the previous screenshot's "Add security group rule" button here. To the right are fields for "Source" and "Description - optional".

Step 12:-

- Launch Instances.



Final Result:-



The screenshot shows the AWS EC2 Instances page. The left sidebar is collapsed, and the main area displays a table of instances. The table has the following columns: Name, Instance ID, Instance state, Instance type, Status check, Alarm status, and Availability Zone. One instance is listed:

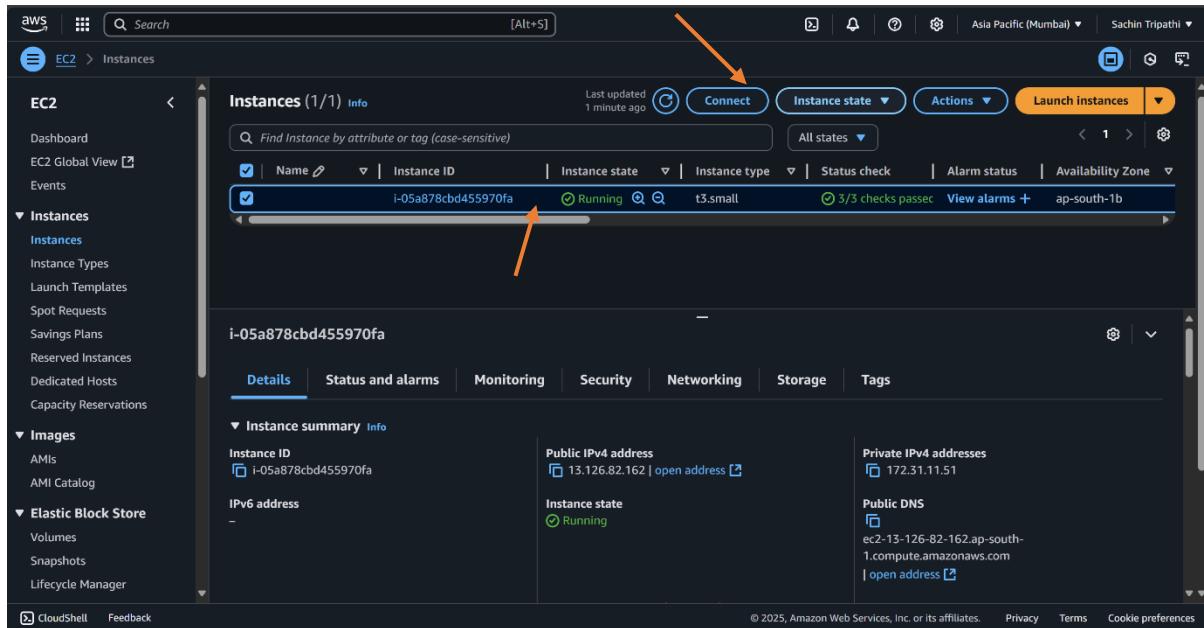
Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone
	i-05a878cbd455970fa	Running	t3.small	3/3 checks passed	View alarms +	ap-south-1b

Three orange arrows point to specific elements: one points to the 'Instances' link in the sidebar, another points to the 'Running' status in the table, and a third points to the '3/3 checks passed' status check indicator.

Connecting to the server:-

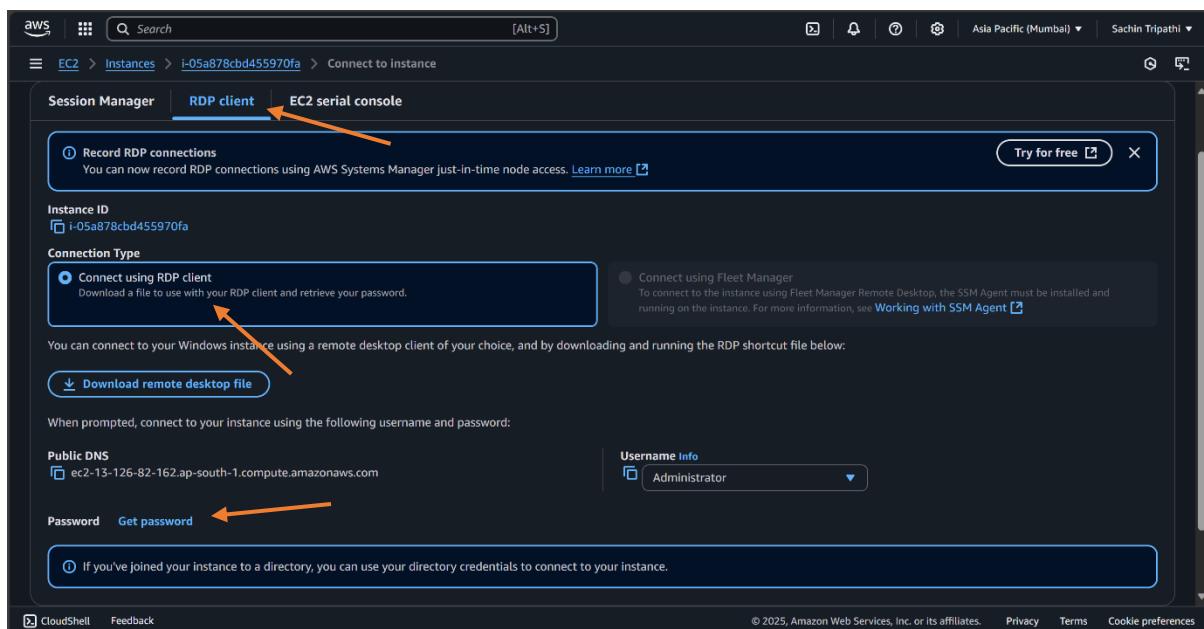
Step 1:-

- Select the instances.
- Click on connect.



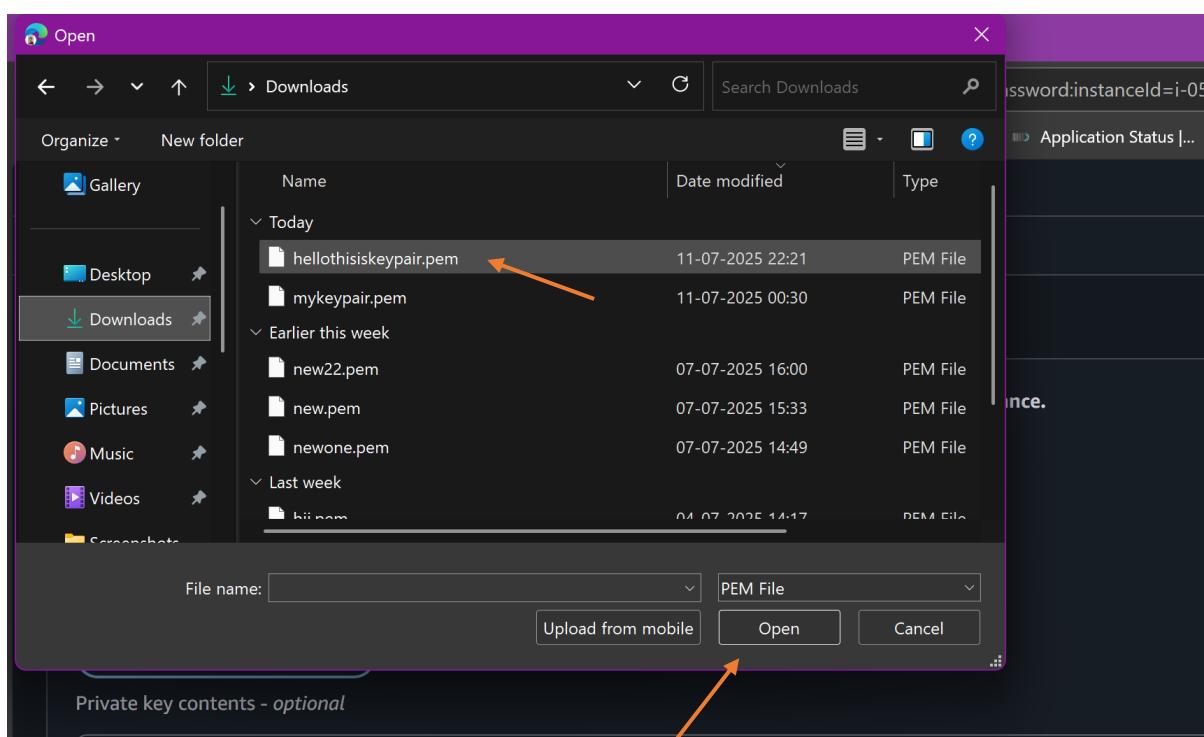
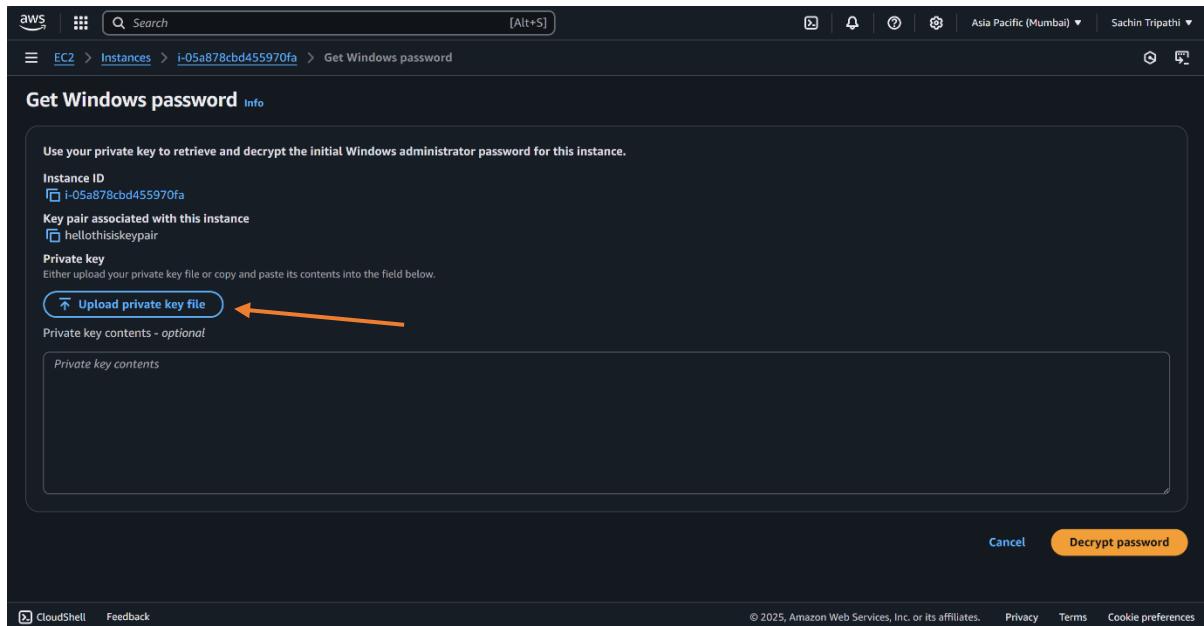
Step 2:-

- Select “RDP(Remote Desktop Protocol) client”.
- In Connection Type-> Choose “Connect using RDP client”.
- Click on “Get Password”.



Step 3:-

- Click on “Upload private key file”.
- Choose the same name of “.pem” extension which is created or select during instances creation.
- Click on “open”.



Step 4:-

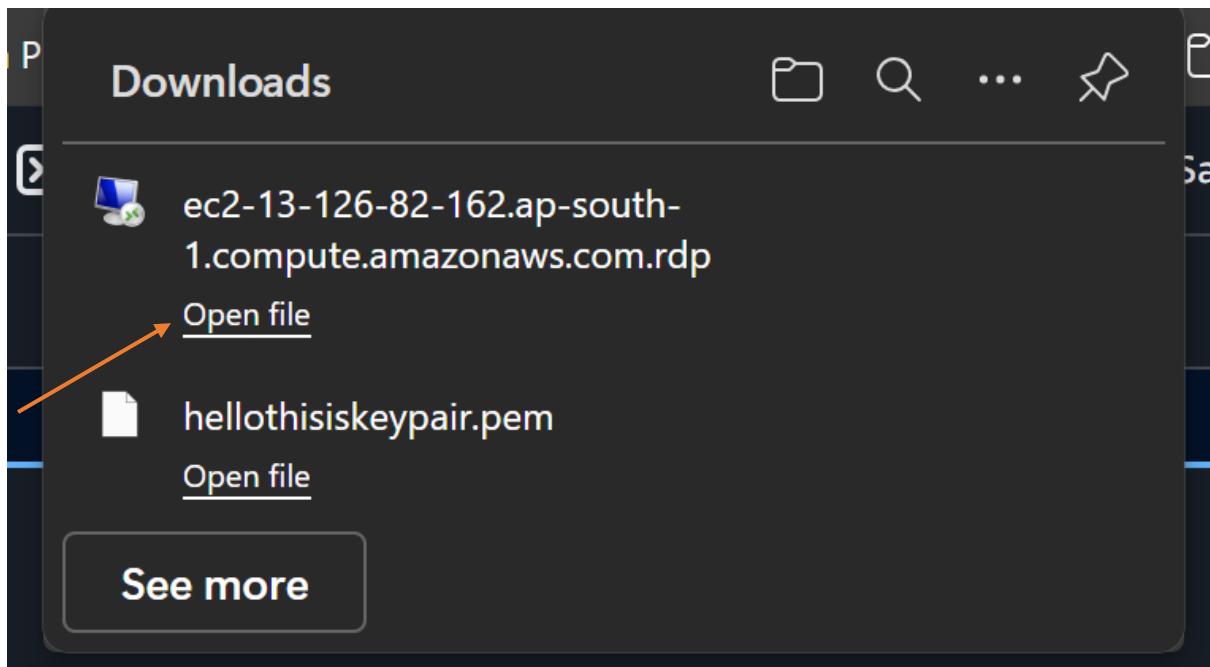
- Click on “Decrypt Password”.
- And Copy the generated key.

The screenshot shows the AWS CloudShell interface. At the top, there is a file upload section with a file named "hellothisiskeypair.pem" (1.674KB). Below it, a text area displays the decrypted RSA PRIVATE KEY content. At the bottom right, there are "Cancel" and "Decrypt password" buttons, with "Decrypt password" being highlighted by an orange arrow. The footer includes links for CloudShell, Feedback, and various AWS services like Privacy, Terms, and Cookie preferences.

Step 5:-

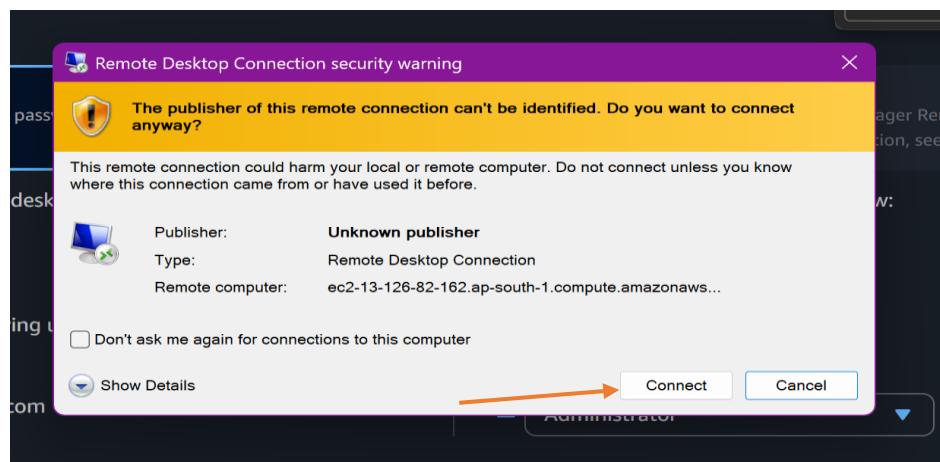
- Click on “Download remote desktop file”.
- Open the downloaded file.

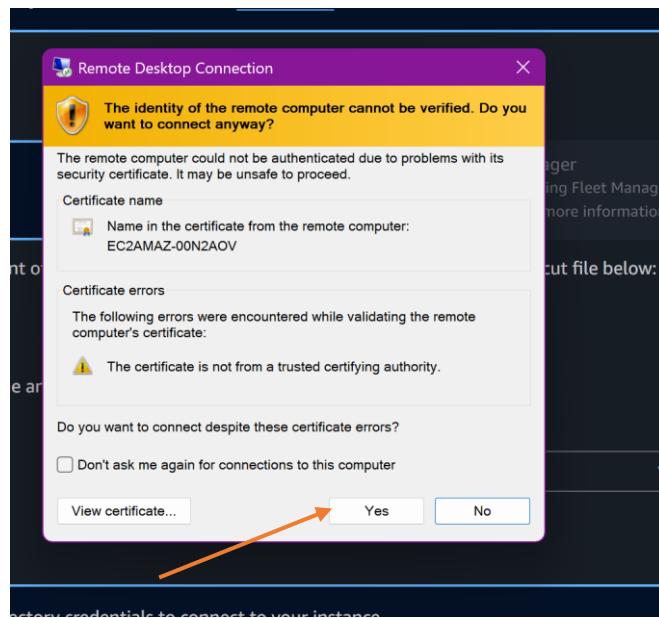
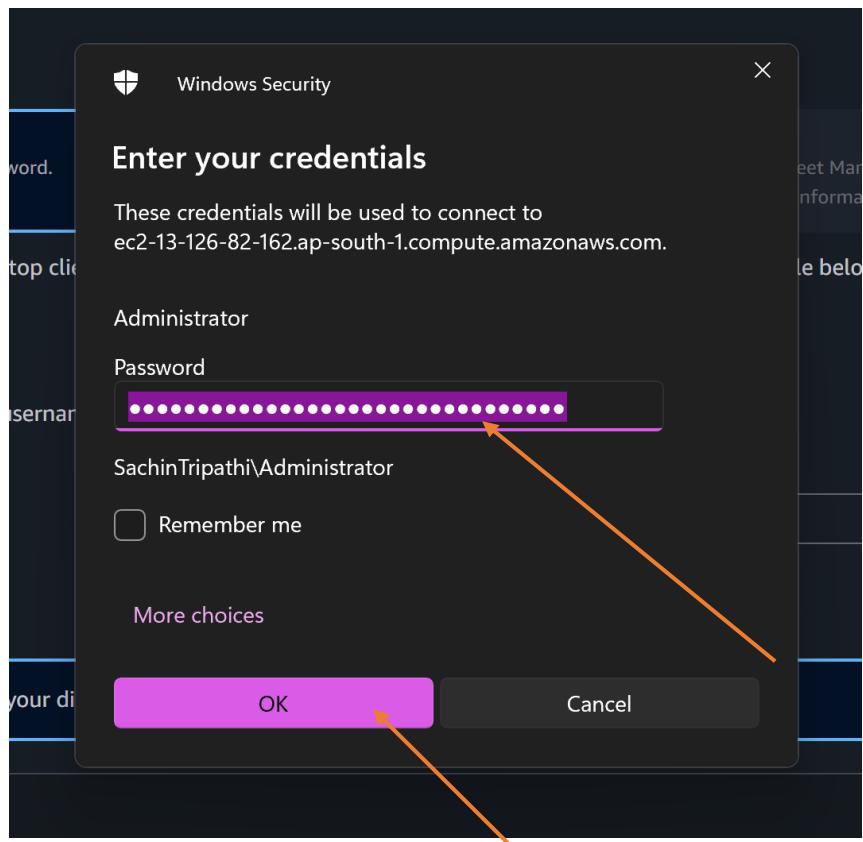
The screenshot shows the AWS CloudShell interface again. It displays the Public DNS of the instance (ec2-13-126-82-162.ap-south-1.compute.amazonaws.com) and a "Password copied" message. A blue callout box contains the password: ??QyVi2DXleFq%Njd5%@WUj5Qs44XzG. Below this, a note says "If you've joined your instance to a directory, you can use your directory credentials to connect to your instance." At the bottom left, there is a "Download remote desktop file" button, which is highlighted by an orange arrow. On the right, there is a "Username Info" dropdown set to "Administrator". The footer includes links for CloudShell, Feedback, and various AWS services like Privacy, Terms, and Cookie preferences.



Step 6:-

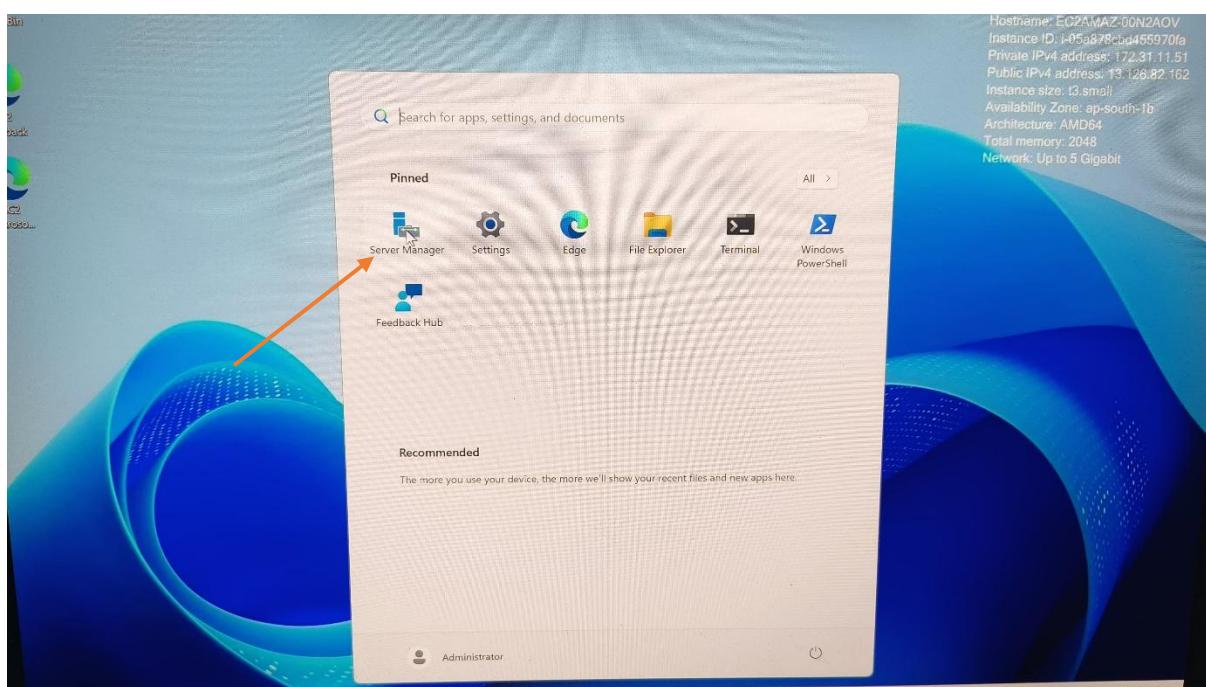
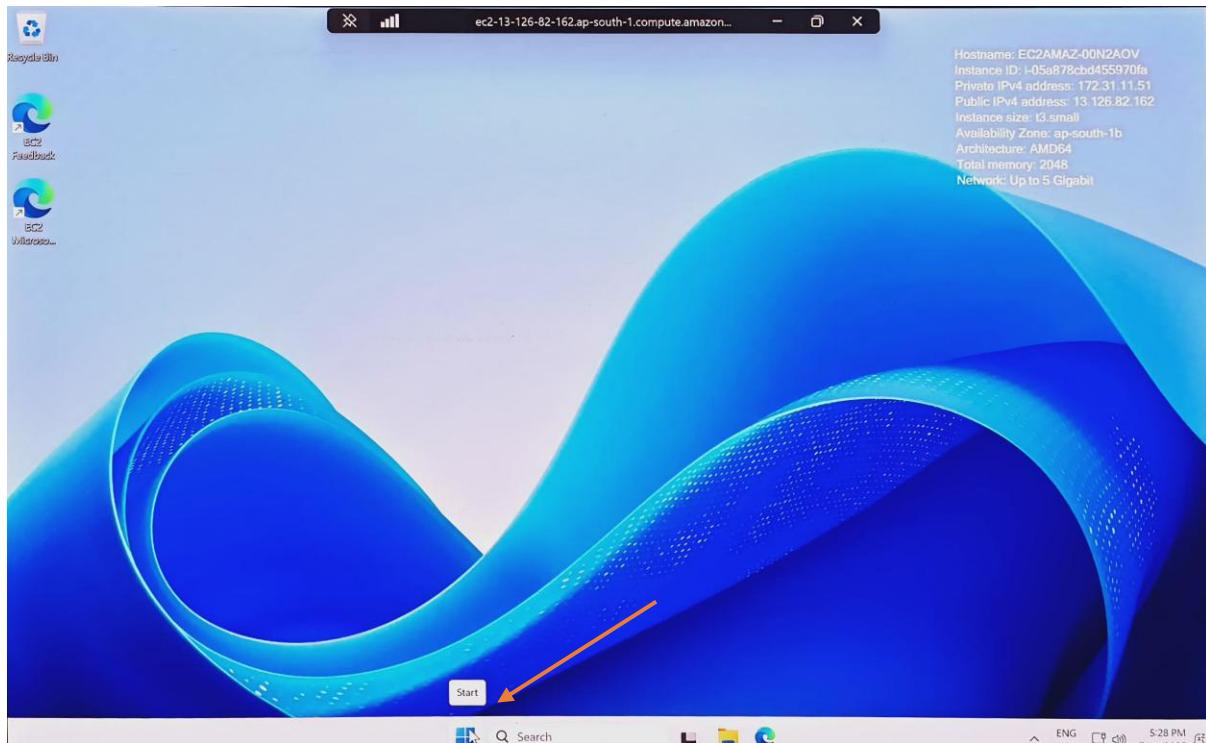
- Click on “Connect”.
- Enter the copied password.
- And click on “OK”.
- After that click “yes”
- Wait few second.





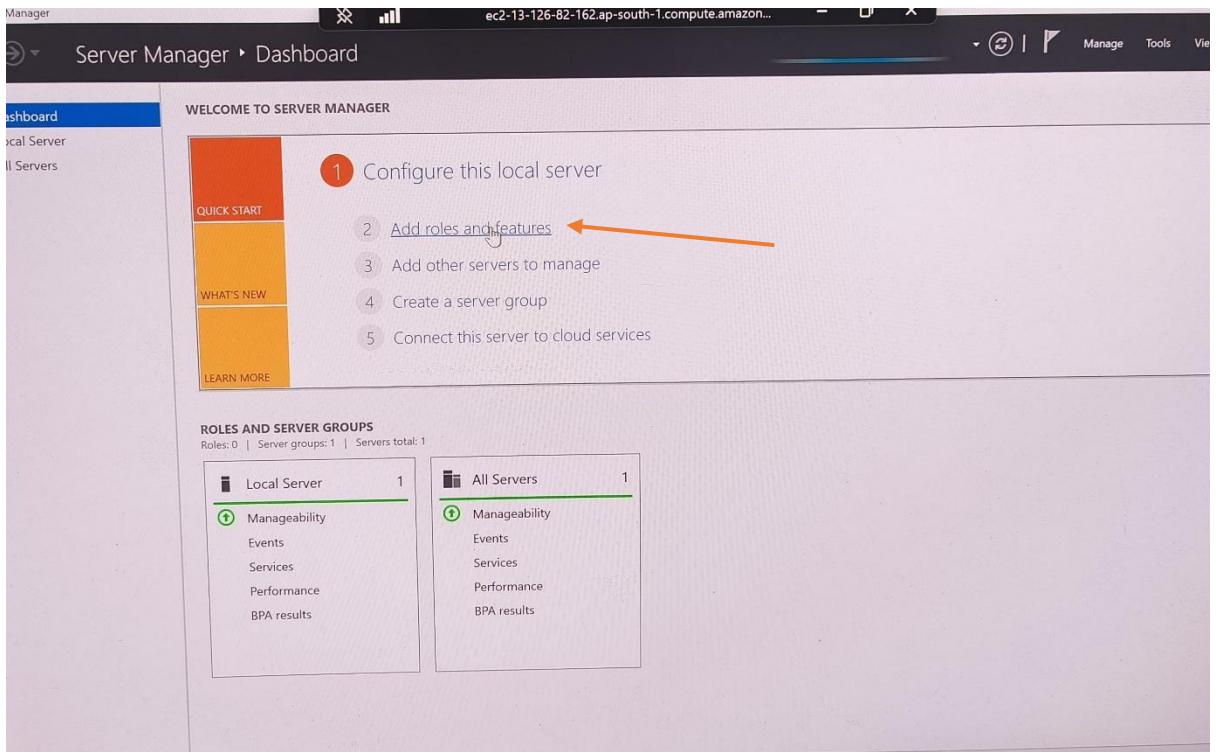
Step 7:-

- Click on “Start” button.
- Goto “Server Manager”.



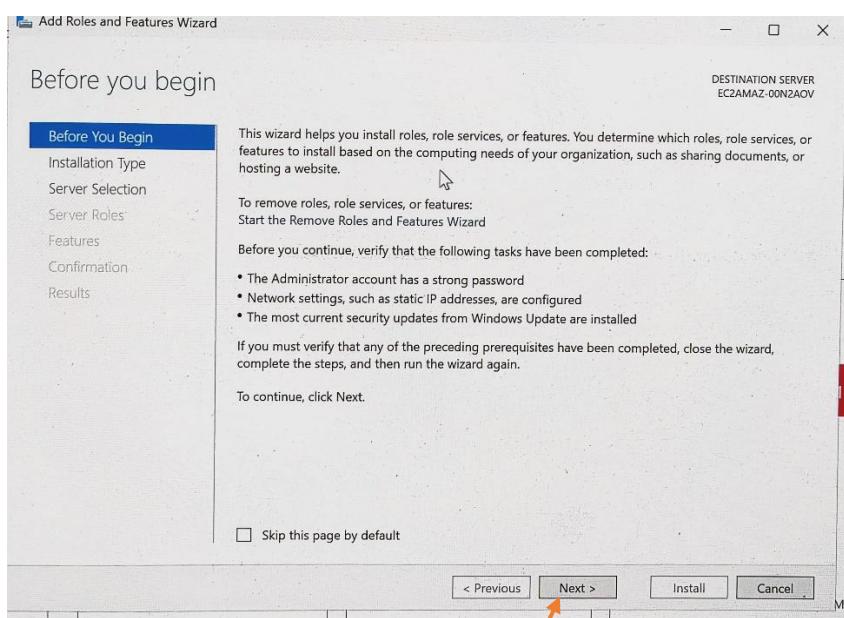
Step 8:-

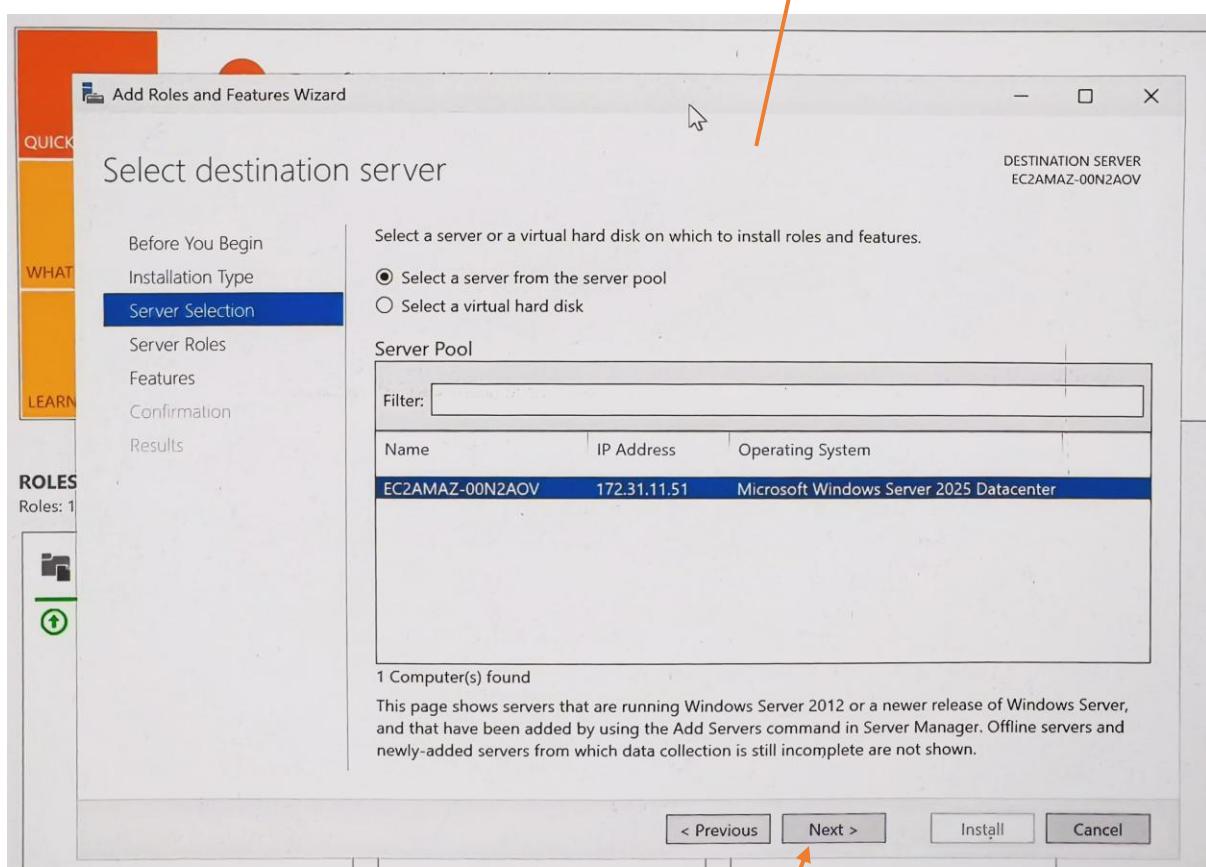
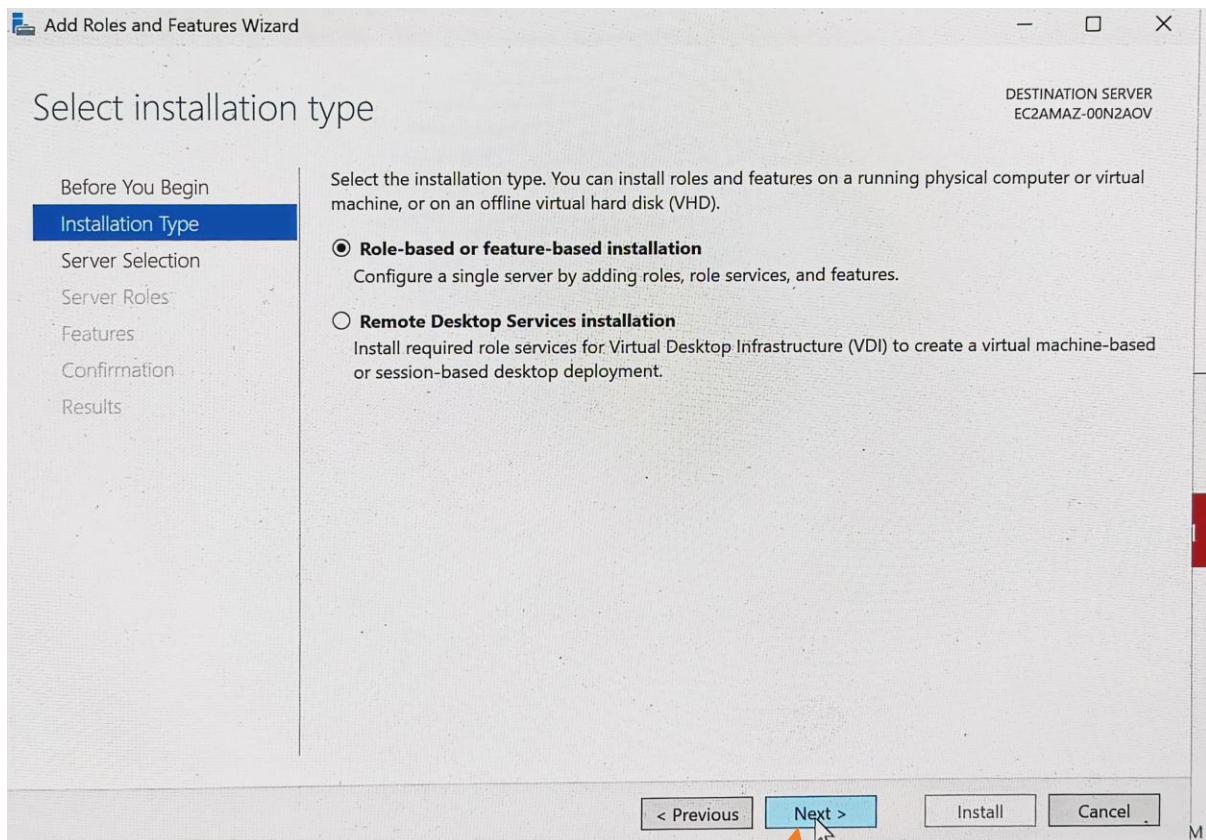
- Goto “Dashboard”.
- Click on “Add roles and features”.
- Waite few second.



Step 9:-

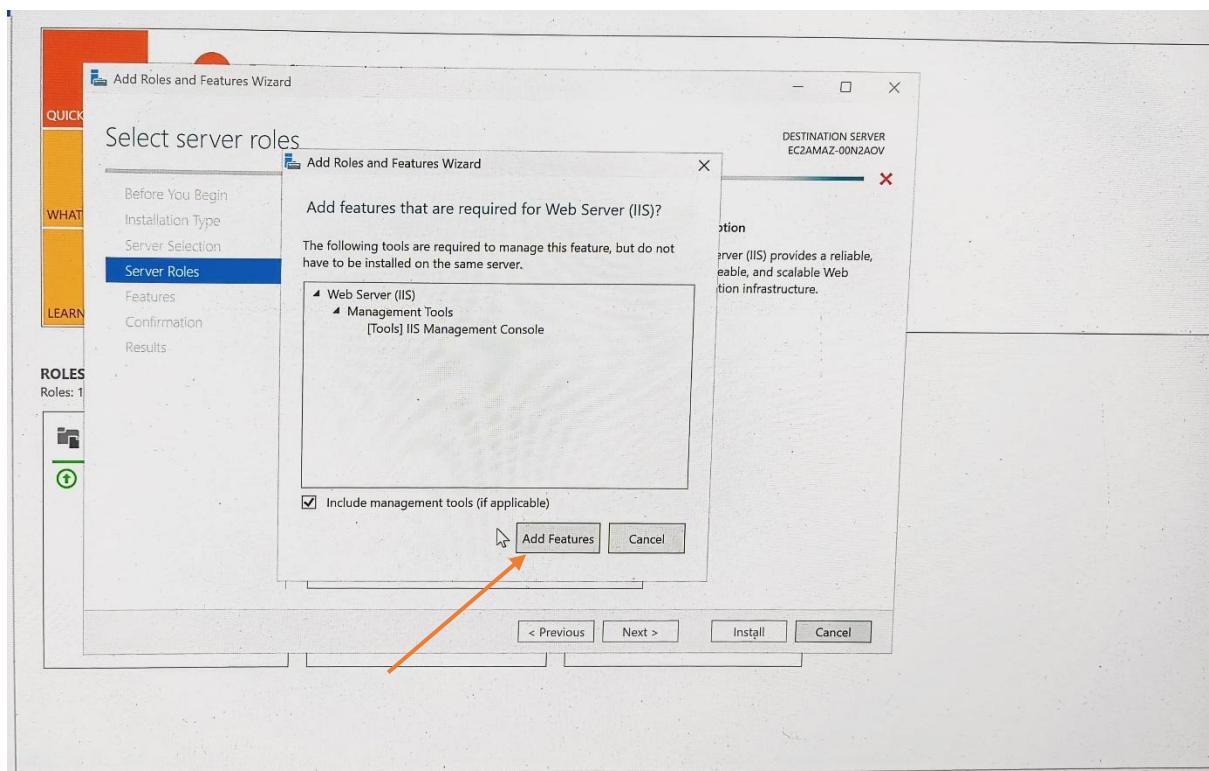
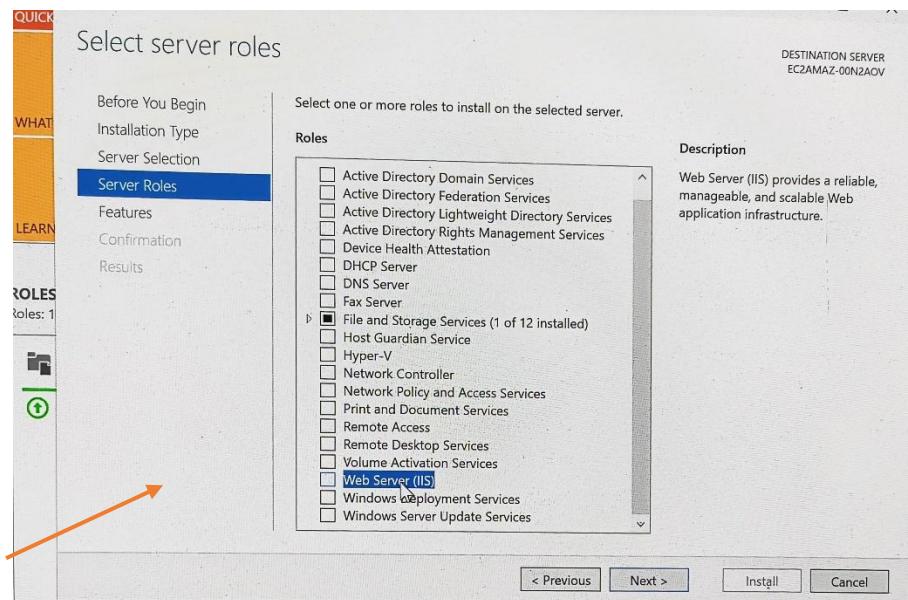
- In first step “Before you begin” click on “Next”.
- In second step “Installation type” click on “Next”.
- In third Step “Server Selection” click on “Next”.

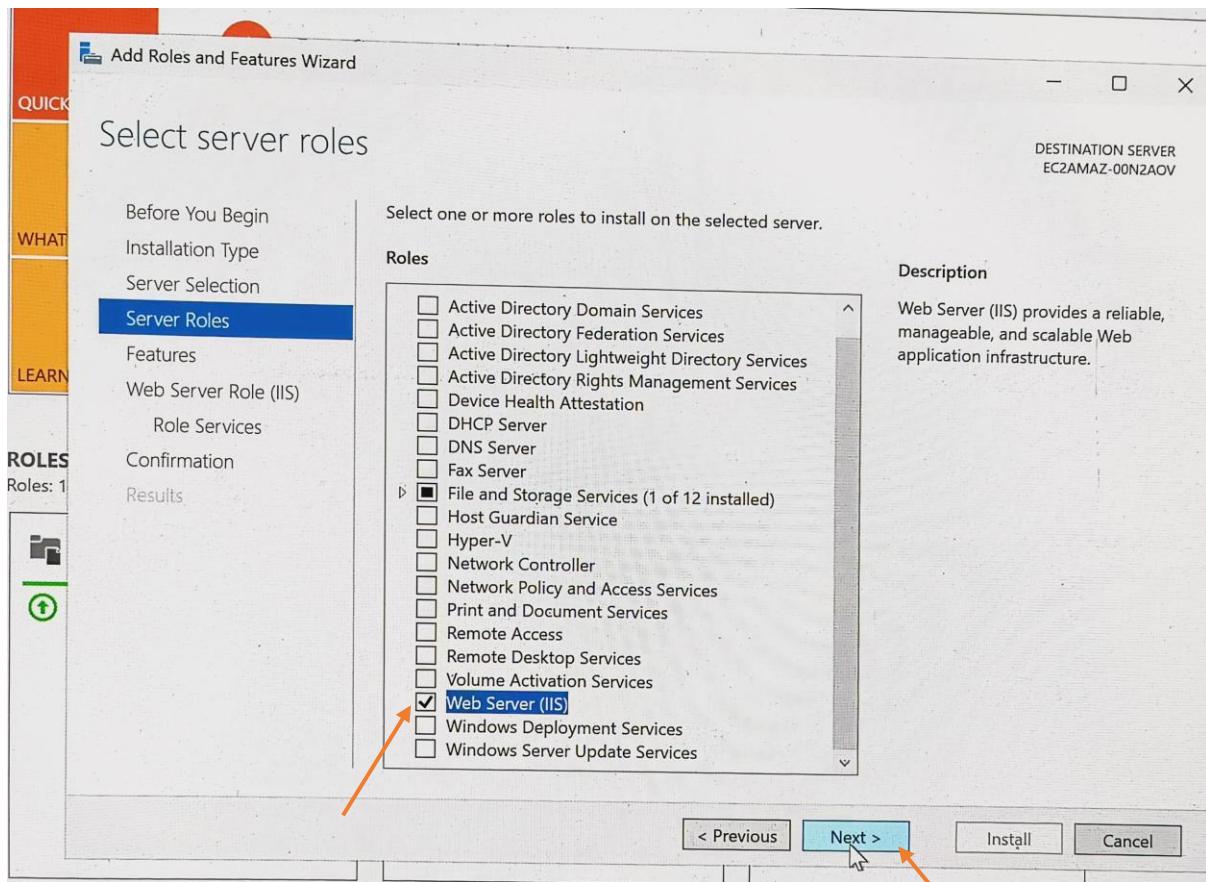




Step 10:-

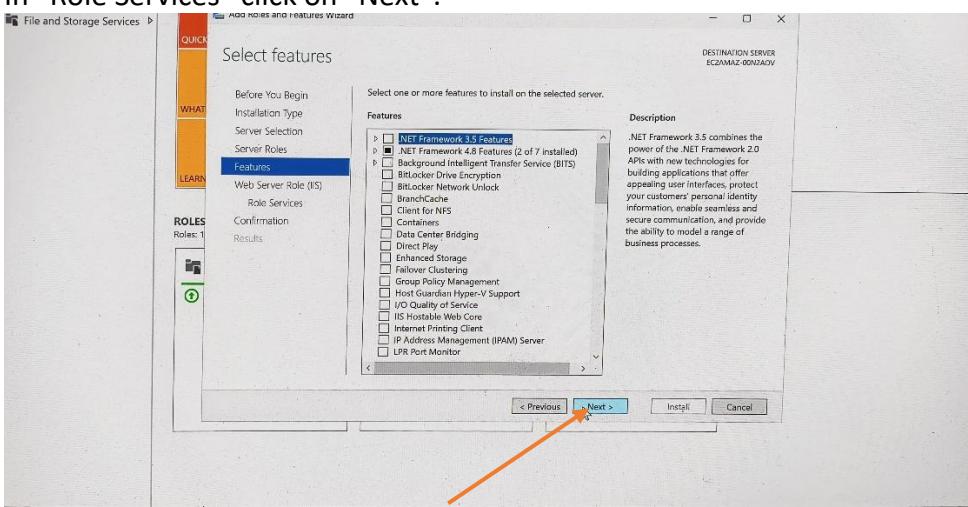
- In “Server Role” Select “Web server(IIS)”.
- Click on “Add Features”.
- And Then click on “Next”.

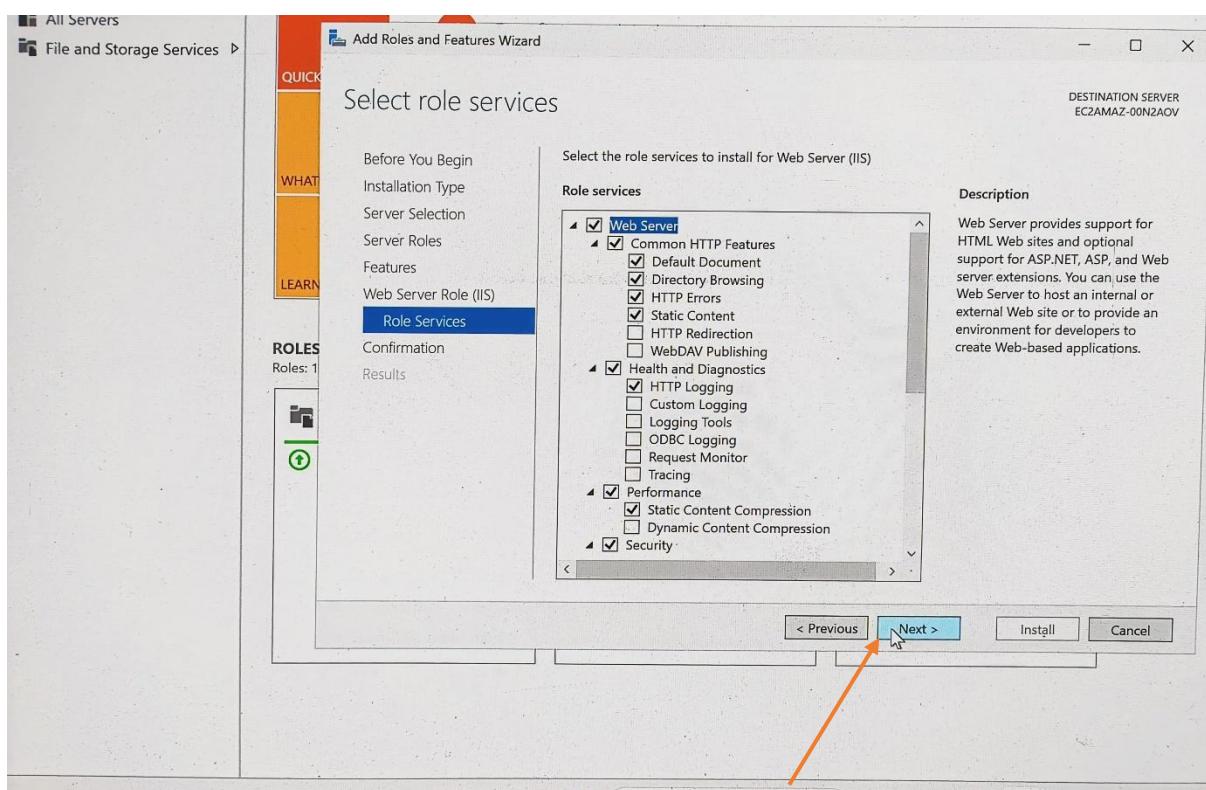
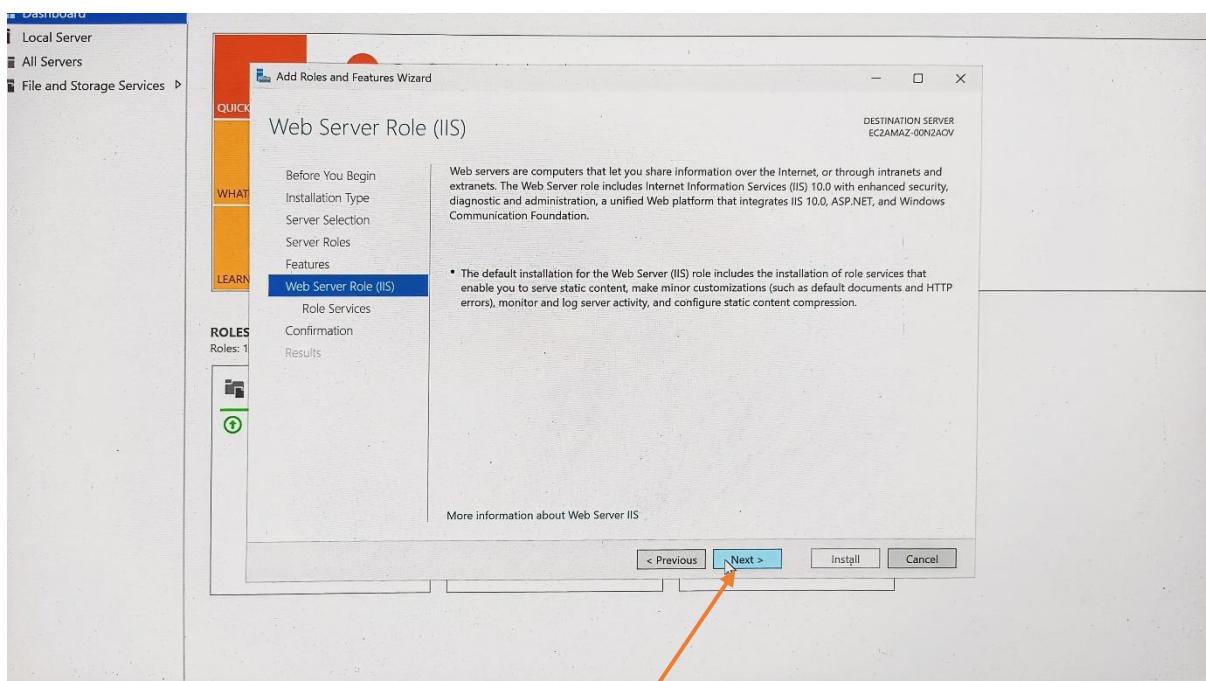




Step 11:-

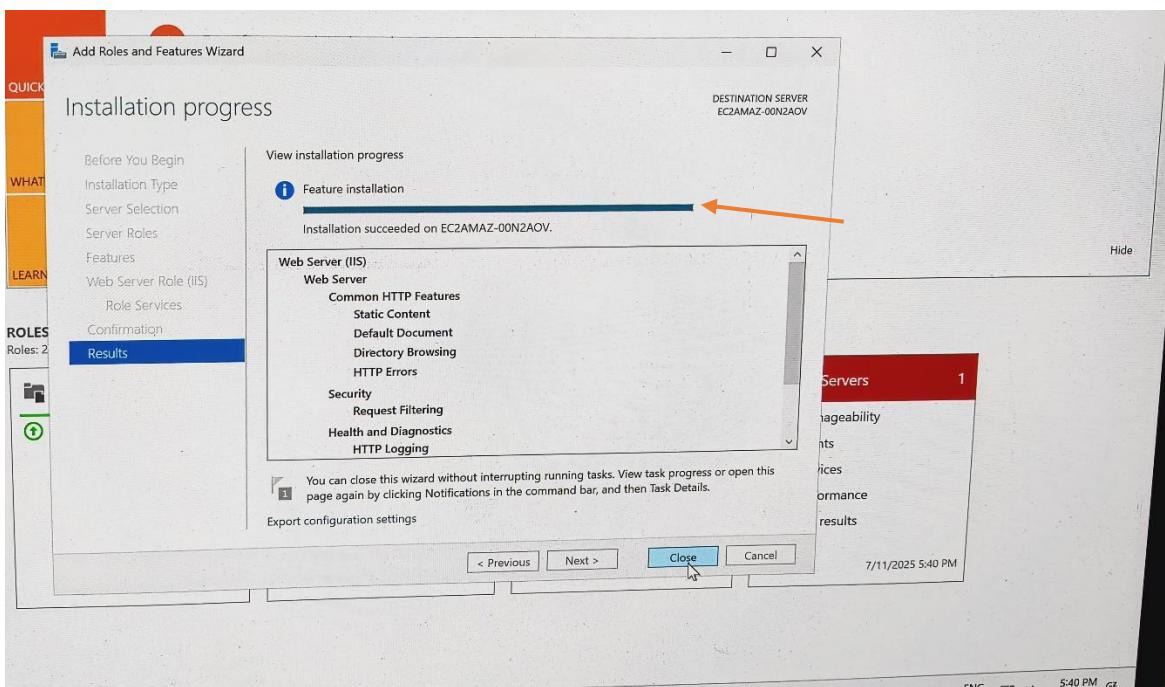
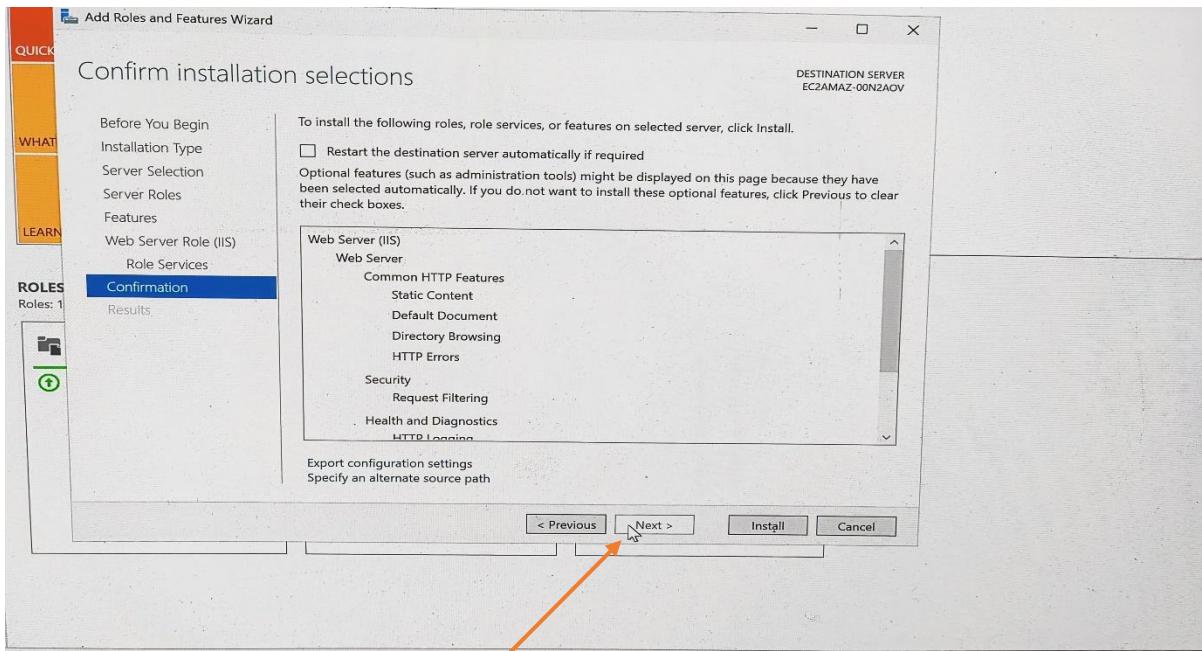
- In “Feature” click on “Next”.
- In “Web Server Role(IIs)” click on “Next”.
- In “Role Services” click on “Next”.





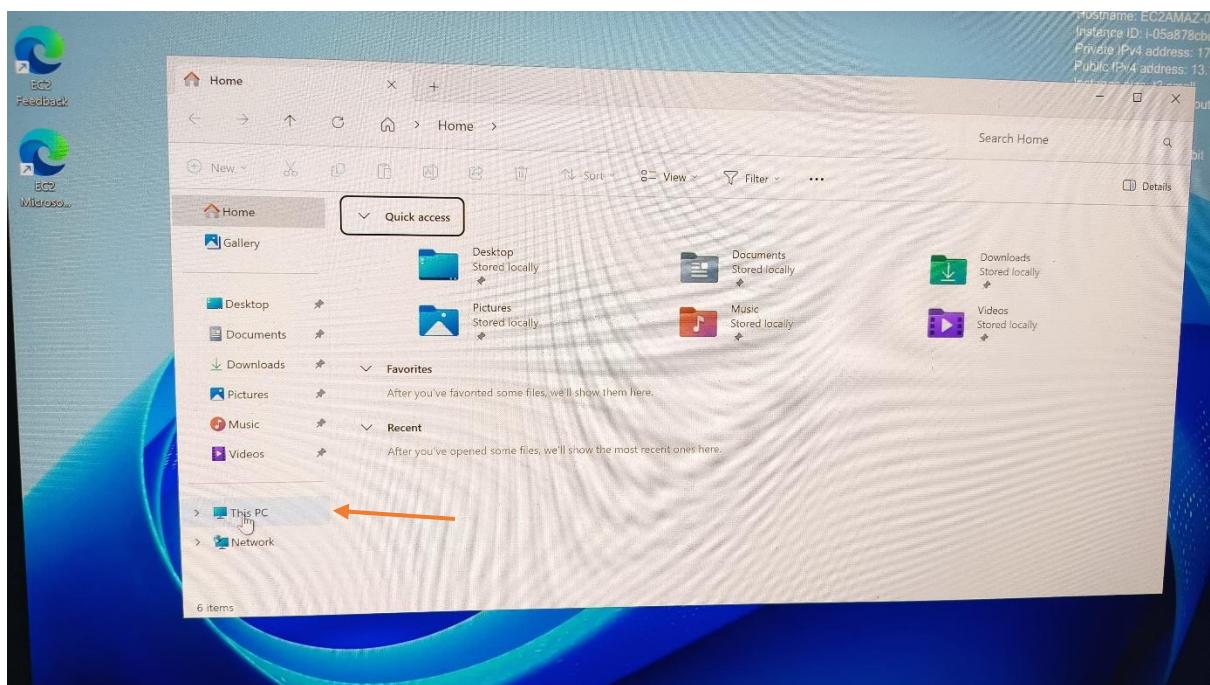
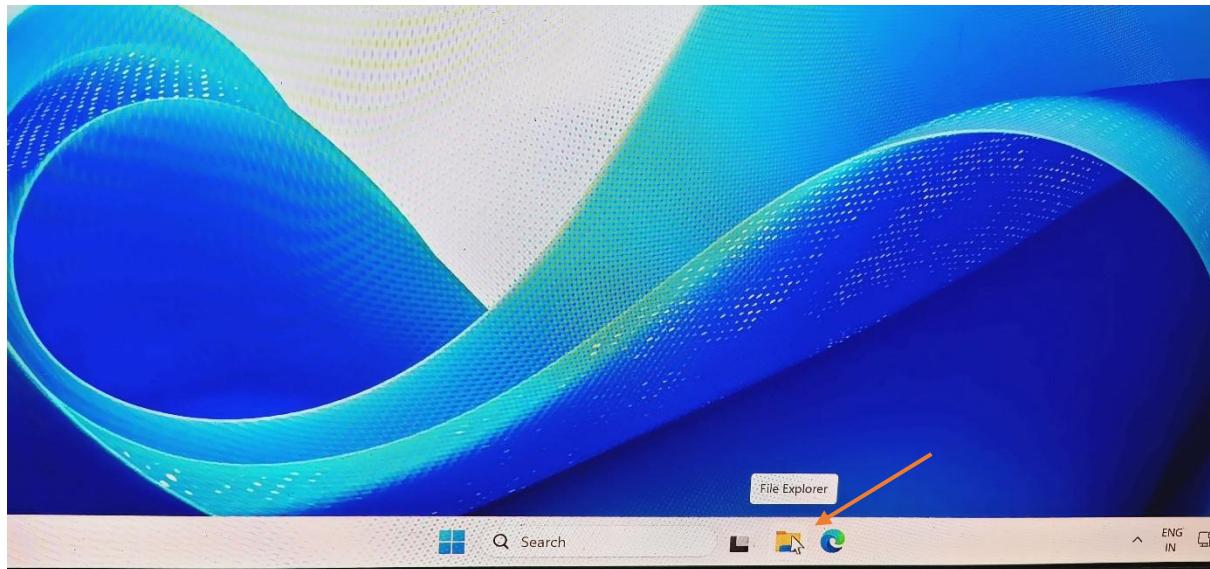
Step 12:-

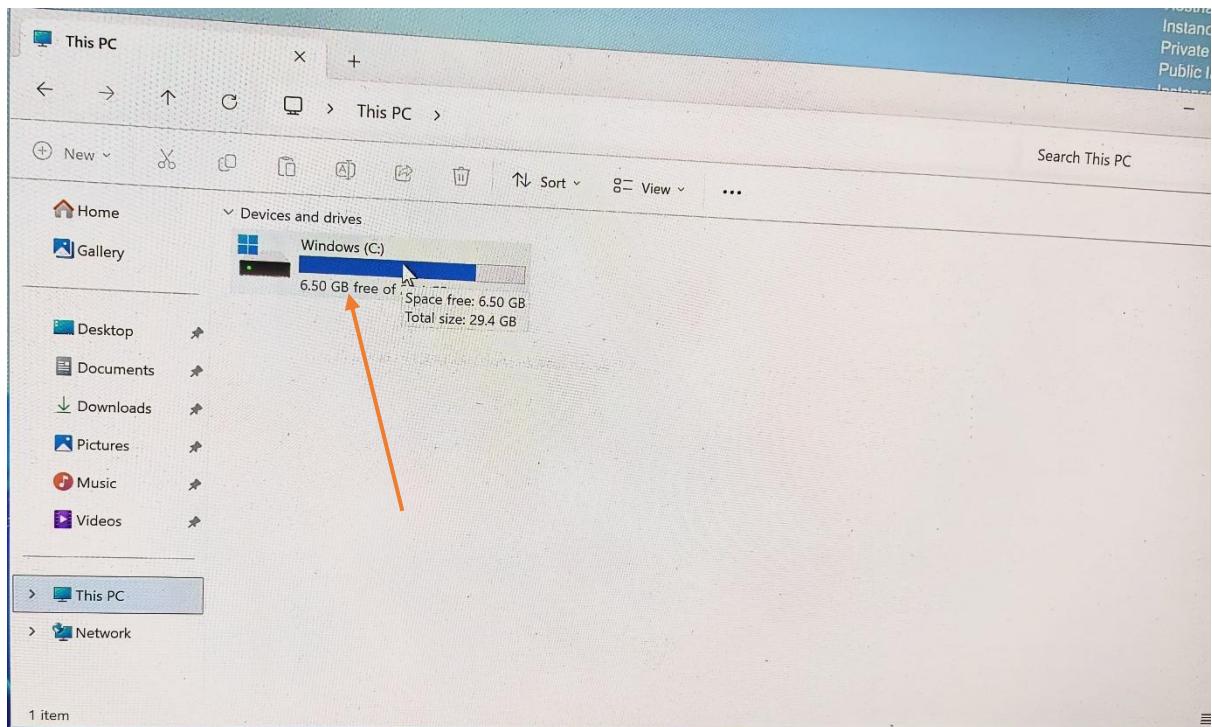
- In “Confirmation” click on “Next”.
- In “Result” it start downloading that wait for few second or minute.
- When the Downloading is complete then click on “cancel”.



Step 13:-

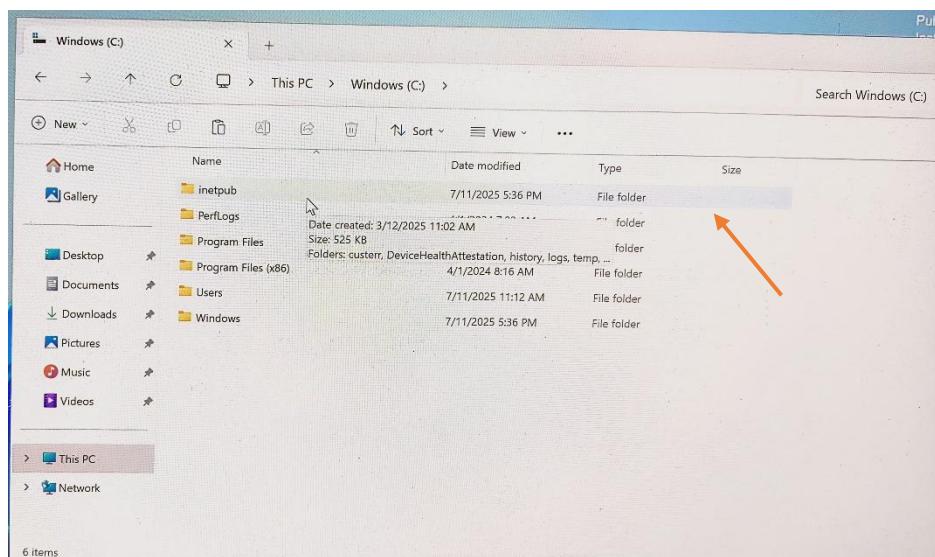
- Back on Home screen of virtual server.
- Click on “File Explorer”.
- Goto “This PC”.
- Click on “C drive”.

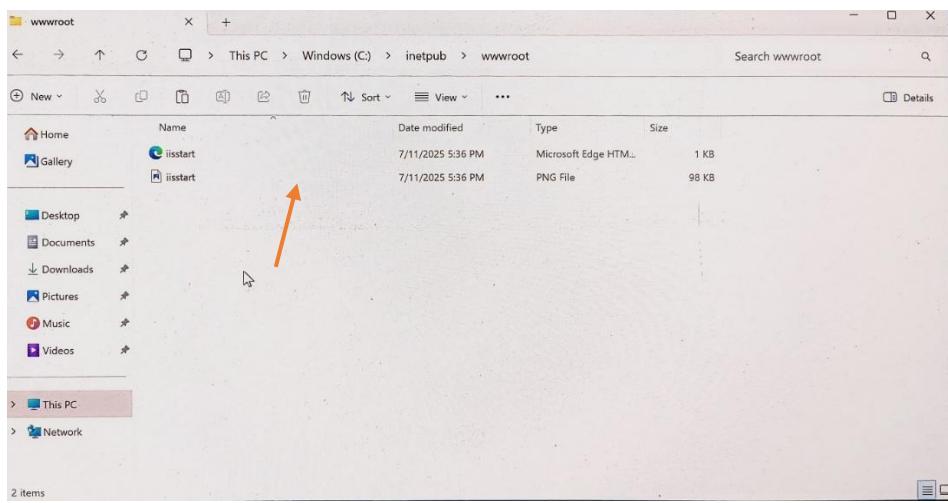
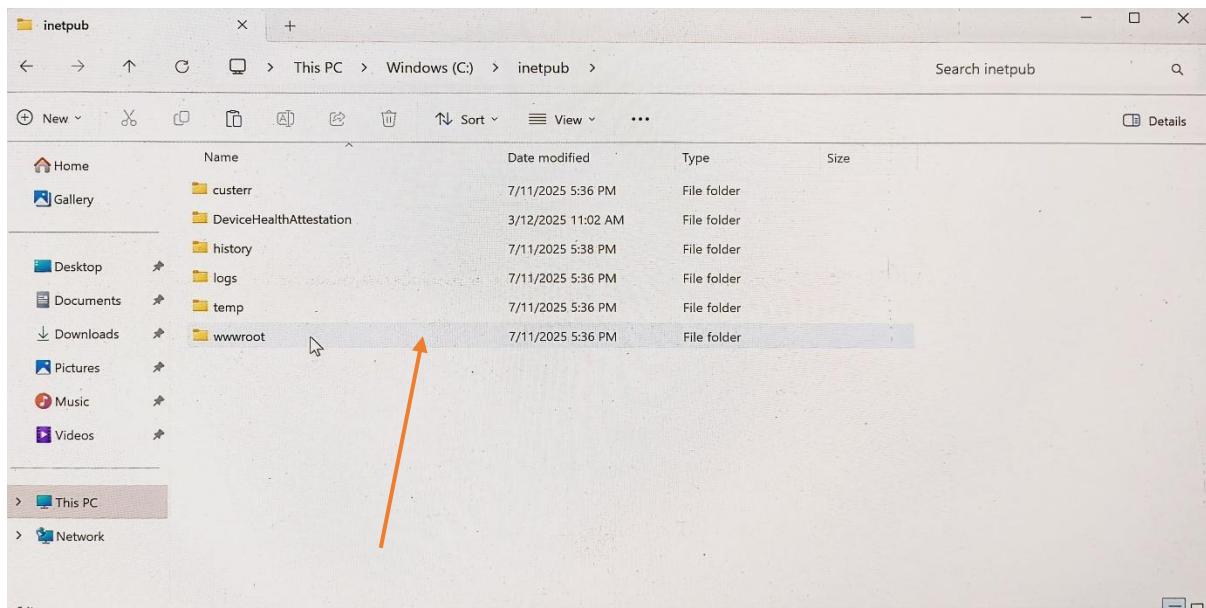




Step 14:-

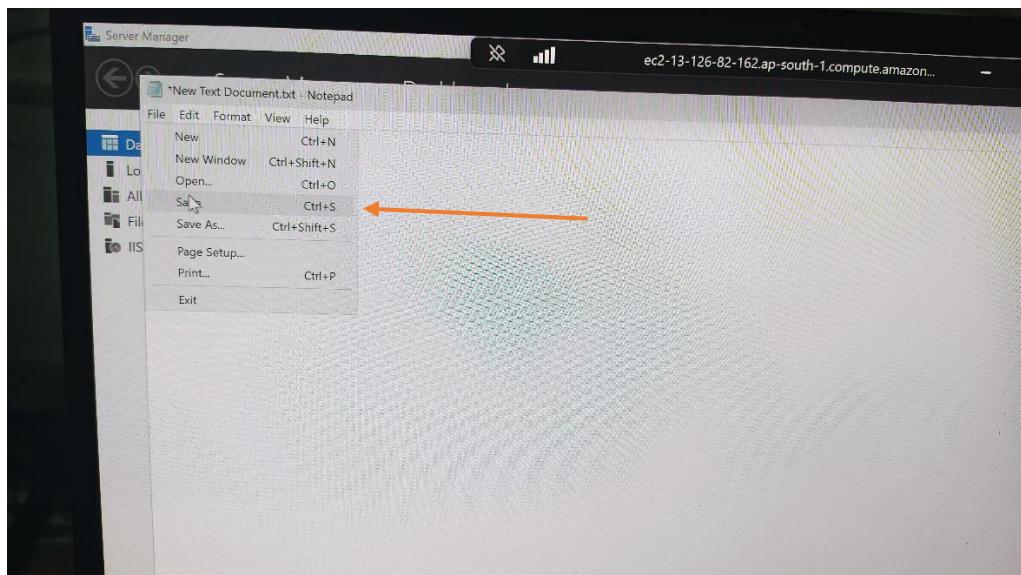
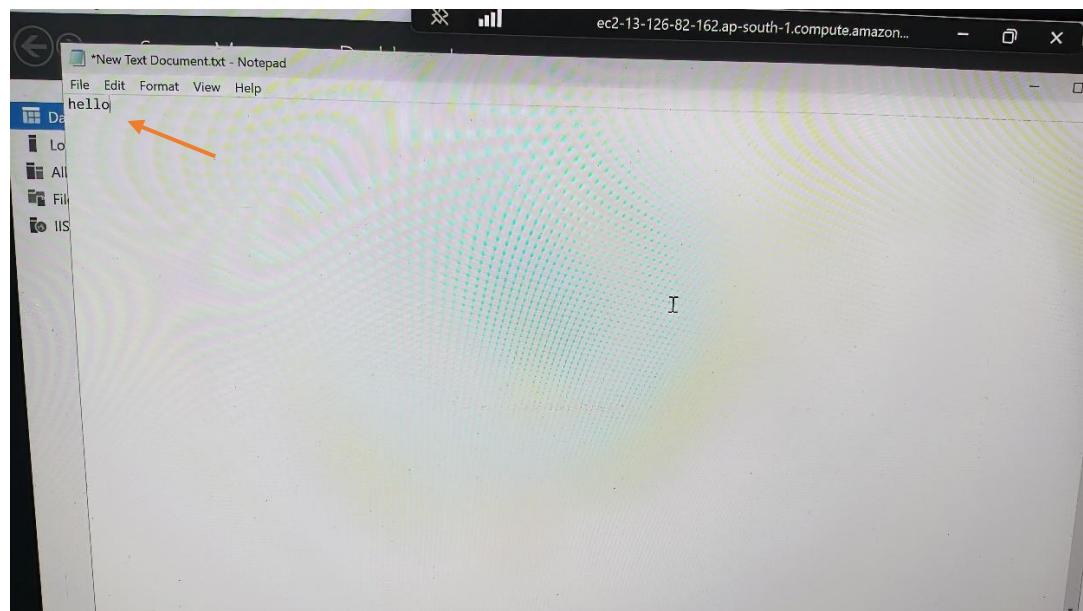
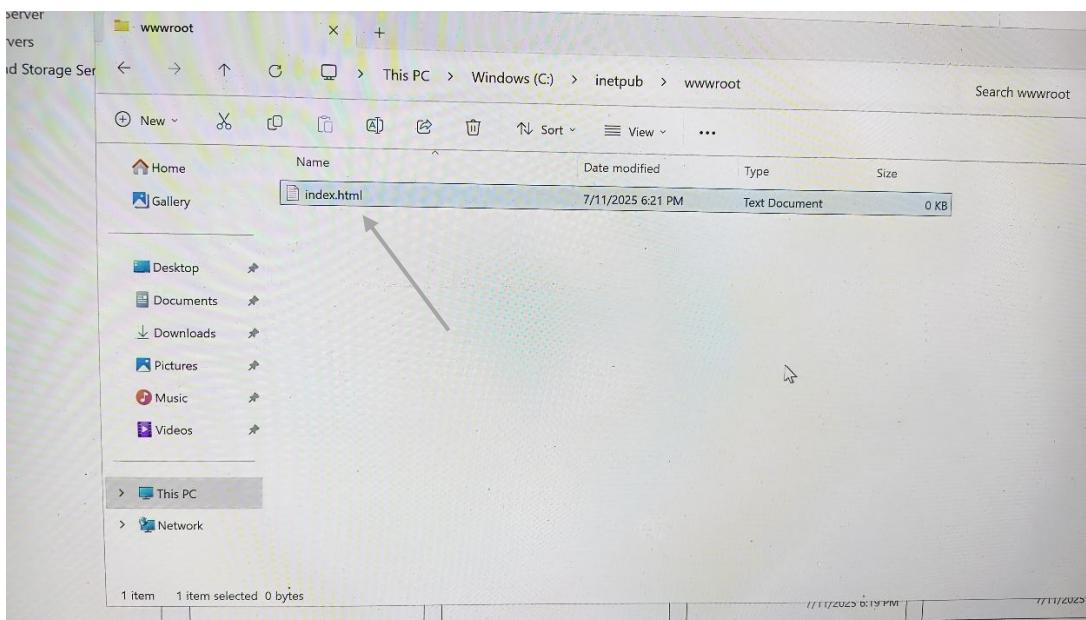
- Click on “inetpub”.
- And Then click on “wwwroot”.
- Delete all the file which is default downloaded.





Step 15:-

- Create a “.html” file.
- Write something in this.
- And then save .
- Then goto the the Instances .



Step 16:-

- Select the instances.
- Copy the “Public IPv4 address”.
- Search on browser.

The screenshot shows the AWS EC2 Instances page with one instance listed. The instance details are as follows:

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone
This_Is_Microsoft_Windows_Server	i-05b4e5cd9316a11d1	Running	t3.small	3/3 checks passed	View alarms	ap-south-1b

An orange arrow points to the instance ID "i-05b4e5cd9316a11d1".

Below the table, the instance summary details are shown:

Instance ID	Public IPv4 address	Private IPv4 addresses
i-05b4e5cd9316a11d1	13.201.184.11 open address	172.31.1.129

An orange arrow points to the public IP address "13.201.184.11".

The screenshot shows the AWS EC2 Instances page with the same instance details. A tooltip appears over the public IP address field, stating "Public IPv4 address copied".

Instance ID	Public IPv4 address	Private IPv4 addresses
i-05b4e5cd9316a11d1	13.201.184.11 open address	172.31.1.129

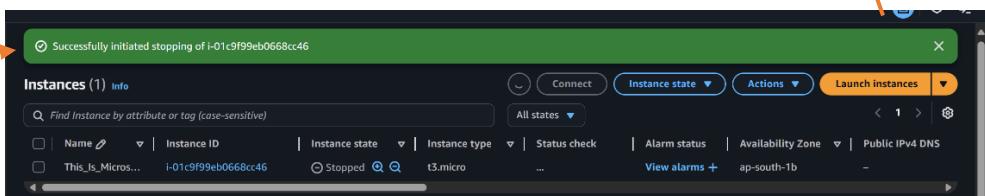
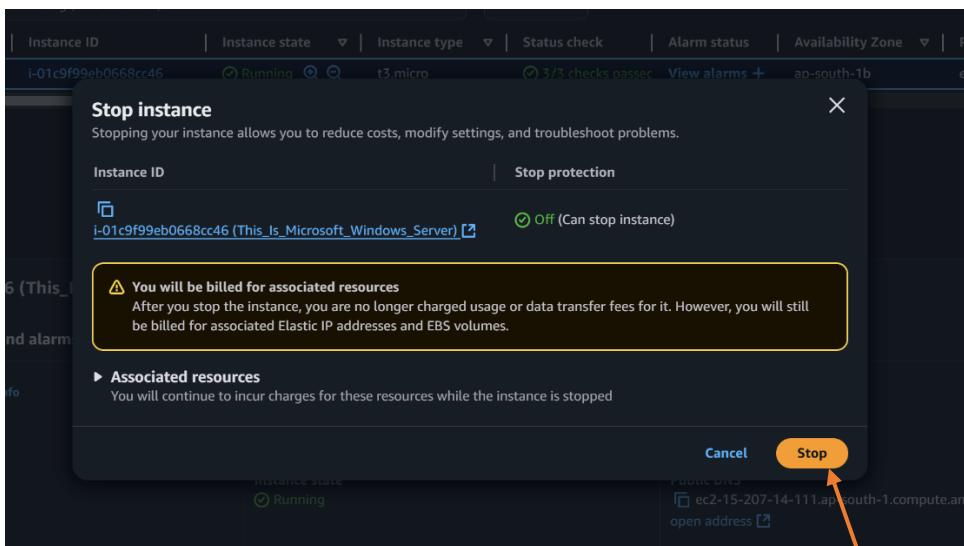
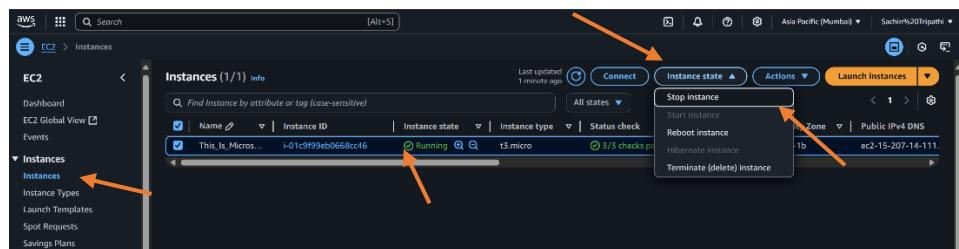
An orange arrow points to the public IP address "13.201.184.11".

The screenshot shows a web browser window with the URL "13.201.184.11" in the address bar. The browser interface includes a back button, forward button, home button, and a search bar containing the text "hello".

How to stop and start the server (instance):-

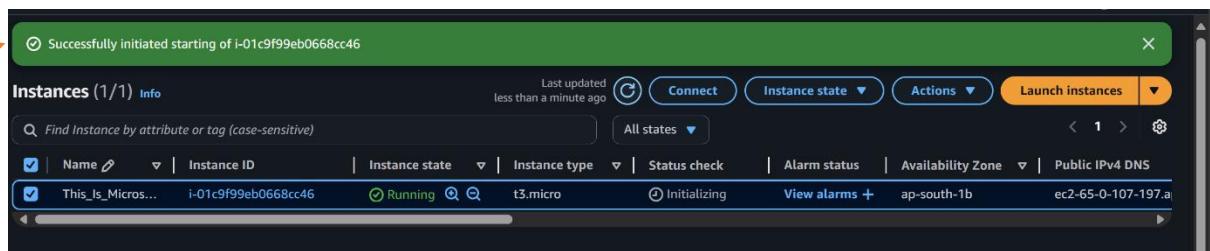
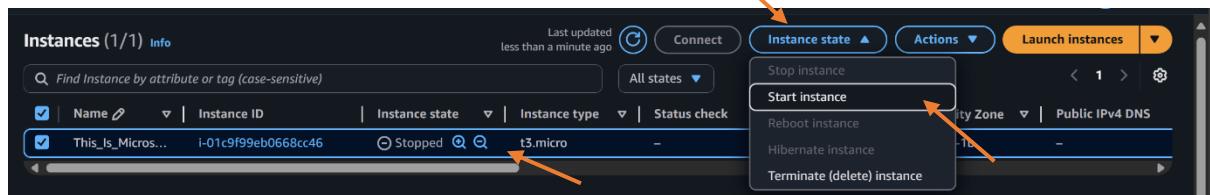
Step 1:-

- Goto instance.
- Select instance.
- Click “Instance state”.
- Click on “stop instance”.
- Successfully stopped.



Step 2:-

- Goto the instance.
- Select the instance.
- Goto “Instance state”.
- Select “start”.
- It will goto to running state.



How to terminate the server (instance):-

Step 1:-

- Select the instance.
- Goto “Action”.
- Click on “Terminate(delete) instance”.
- Click on “Terminate(delete)”.
- Successfully terminated.

The screenshot shows the AWS EC2 Instances page with one instance selected. The instance details are as follows:

Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS
i-01c9f99eb0668cc46	Running	t3.micro	Initializing	View alarms +	ap-south-1b	ec2-65-0-107-197.ap-south-1.compute.amazonaws.com

The Actions menu is open, and the "Terminate (delete) instance" option is highlighted with an orange arrow. A modal dialog titled "Terminate (delete) instance" is displayed, containing the following text:

⚠️ On an EBS-backed instance, the default action is for the root EBS volume to be deleted when the instance is terminated. Storage on any local drives will be lost.

Are you sure you want to terminate these instances?

Instance ID: i-01c9f99eb0668cc46 (This_Is_Microsoft_Windows_Server) | Termination protection: Disabled

To confirm that you want to delete the instances, choose the terminate button below. Instances with termination protection enabled will not be terminated. Terminating the instance cannot be undone.

Cancel | **Terminate (delete)**

Success message: Successfully initiated termination (deletion) of i-01c9f99eb0668cc46

CREATING AND USING AMI(AMAZON MACHINE IMAGE)

An Amazon Machine Image (AMI) is like a blueprint for your EC2 instance. It contains everything needed to launch a virtual server — including the operating system, application code, libraries, and settings. When you launch an EC2 instance, you choose an AMI as the starting point. It helps you quickly create multiple similar servers without setting up everything from scratch each time.

Step 1:-

- Select the instances.
- Goto “Action”.
- Select “Image And Templates”.
- Select “Create Image”.

The screenshot shows the AWS EC2 Instances page. On the left, there's a navigation sidebar with options like Dashboard, EC2 Global View, Events, Instances (selected), Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Capacity Reservations, Images (selected), AMIs, and AMI Catalog. The main area displays 'Instances (1/1) Info' for an instance named 'This_Is_Micros...' with ID i-05b4e5cd9316a11d1, which is running and of type t3.small. The 'Actions' button is highlighted with an orange arrow. A context menu is open, showing options: Instance diagnostics, Instance settings, Networking, Security, Image and templates (selected and highlighted with an orange arrow), and Monitor and troubleshoot.

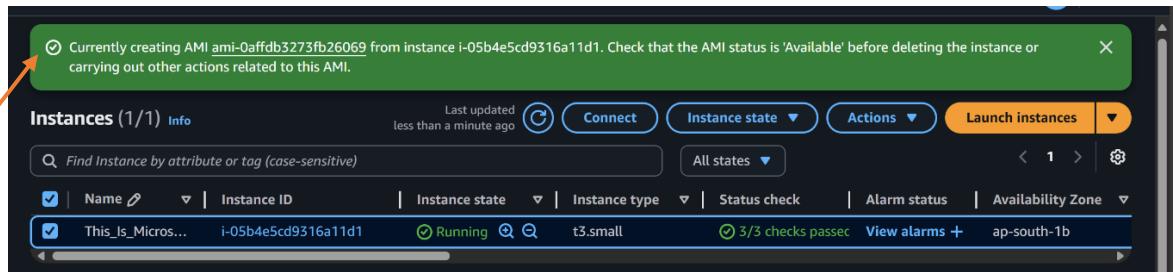
This screenshot is similar to the previous one, showing the same EC2 Instances page. The 'Actions' menu is open, and the 'Image and templates' option has been selected. A sub-menu is displayed with three options: 'Create image' (selected and highlighted with an orange arrow), 'Create template from instance', and 'Launch more like this'.

Step 2:-

- Write the “Image Name” Ex:- image1.
- Description is optional.
- Uncheck “Reboot Instance” .
- Select “Create Image”.

The screenshot shows the 'Create image' page in the AWS EC2 console. In the 'Image details' section, the 'Image name' field contains 'image1'. The 'Reboot instance' checkbox is checked. The 'Image description - optional' field is empty. Below the 'Image details' section, there is a table for 'Instance volumes' with one row. The 'Size' column shows '30', the 'Volume type' column shows 'EBS General Purpose ...', and the 'Delete on termination' column has a checked checkbox. At the bottom of the page, there are links for 'CloudShell' and 'Feedback', and a note about copyright and terms.

The screenshot shows the 'Instance volumes' section of the 'Create image' page. It includes a table for 'Instance volumes' with columns for Storage type, Device, Snapshot, Size, Volume type, IOPS, Throughput, Delete on termination, and Encrypted. The 'Size' column shows '30', the 'Volume type' column shows 'EBS General Purpose ...', and the 'Delete on termination' column has a checked checkbox. Below the table, there is a button labeled 'Add volume'. A callout bubble provides information about snapshots being created. At the bottom, there are sections for 'Tags - optional' (with radio buttons for 'Tag image and snapshots together' and 'Tag image and snapshots separately'), 'No tags associated with the resource', and a 'Create image' button.



Step 3:-

- Goto AMIs.
- Select the AMIs.
- Check the Status of AMIs.
- If “pending” then wait for few second.
- It is Available.

EC2 > AMIs

Amazon Machine Images (AMIs) (1) Info

Owned by me Find AMI by attribute or tag

Recycle Bin EC2 Image Builder Actions Launch instance from AMI

Name	AMI ID	Source	Owner
image1	ami-0d543572b28befa32	515614487437/image1	515614487437

Select an AMI

Images AMIs AMI Catalog

Elastic Block Store Volumes Snapshots Lifecycle Manager

CloudShell Feedback

Amazon Machine Images (AMIs) (1/1) Info

Owned by me Find AMI by attribute or tag

Recycle Bin EC2 Image Builder Actions Launch instance from AMI

Source	Owner	Visibility	Status	Creation date
Bbefa32 515614487437/image1	515614487437	Private	Pending	2025/07/12 19:37 GMT+5:30

Amazon Machine Images (AMIs) (1/1)				
Owned by me		Actions		Launch instance from AMI
Find AMI by attribute or tag				
Owner	Visibility	Status	Creation date	Platform
515614487437	Private	Available	2025/07/12 19:37 GMT+5:30	Windows

Step 4:-

- Goto “Action”.
- Click on “Copy AMI”.
- Enter the name of “AMI copy name”. Ex:- image1.
- Click on “Destination Region”

Amazon Machine Images (AMIs) (1/1)

Owned by me	Name	AMI name	AMI ID	Source
<input checked="" type="checkbox"/>	image1	ami-0d543372b28befa32	515614487437/image1	

AMI ID: ami-0d543372b28befa32

Details Permissions Storage Tags

Actions ▾

- Copy AMI
- Edit AMI permissions
- Request Spot Instances
- Manage tags
- Deregister AMI
- Manage AMI deregistration protection
- Change description
- Configure fast launch
- Manage AMI Deprecation
- Register instance store-backed AMI
- Disable AMI

Copy AMI [Info](#)

Create a copy of an Amazon Machine Image in a Region.

Copy Amazon Machine Image (AMI)

Original AMI ID
ami-0d543372b28befa32

AMI copy name

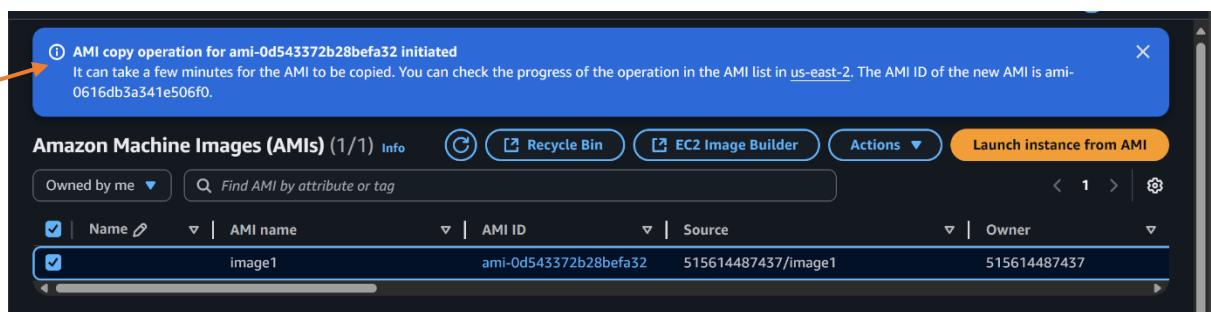
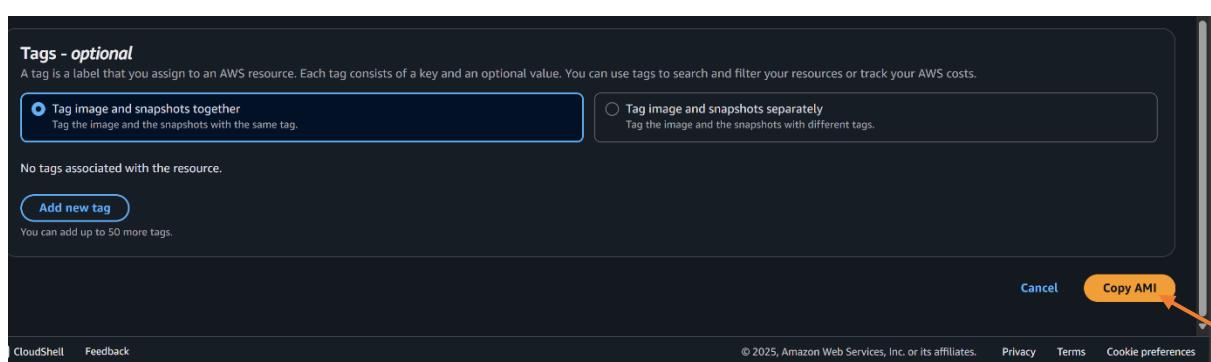
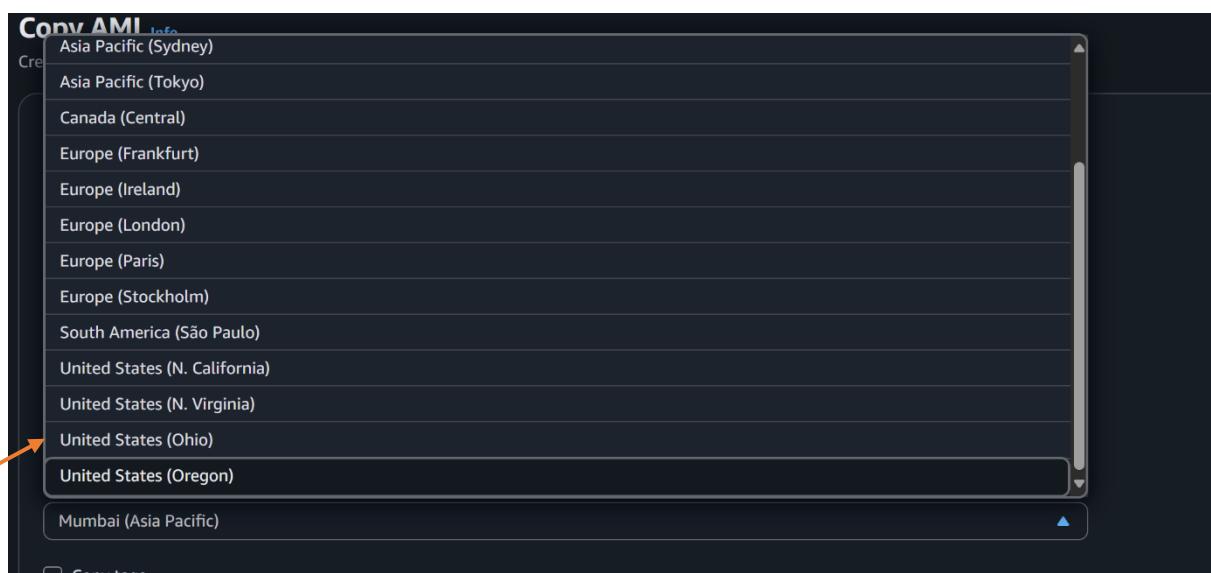
AMI copy description
[Copied ami-006203df30ae5da0e from ap-south-1] image1

Destination Region
A copy of the original AMI will be created in the destination Region.
Mumbai (Asia Pacific)

Copy tags
Includes your user-defined AMI tags when copying the AMI.

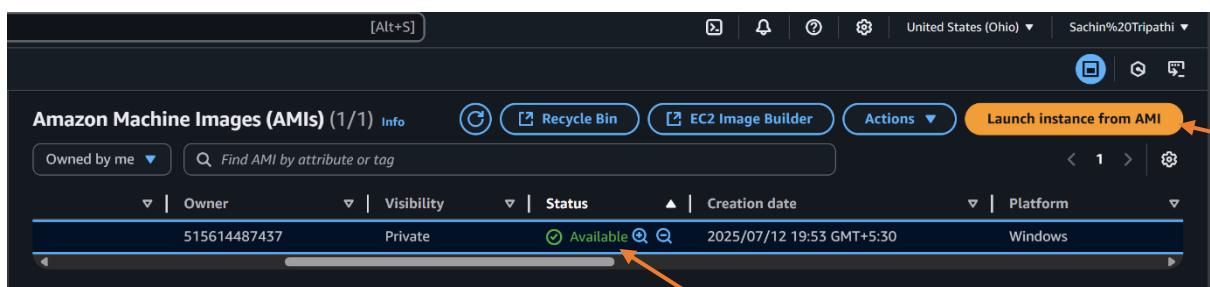
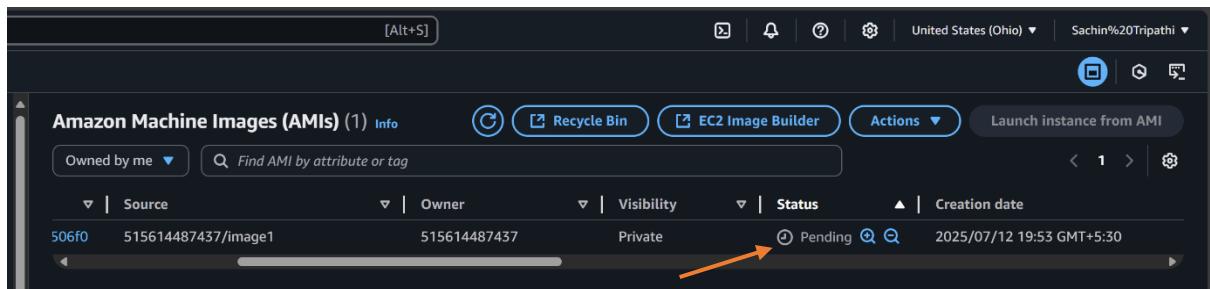
Step 5:-

- Choose the “Destination Region” Where you want to Share for making instances directly by this.Ex:-Ohio.
- Click on “Copy AMI”.



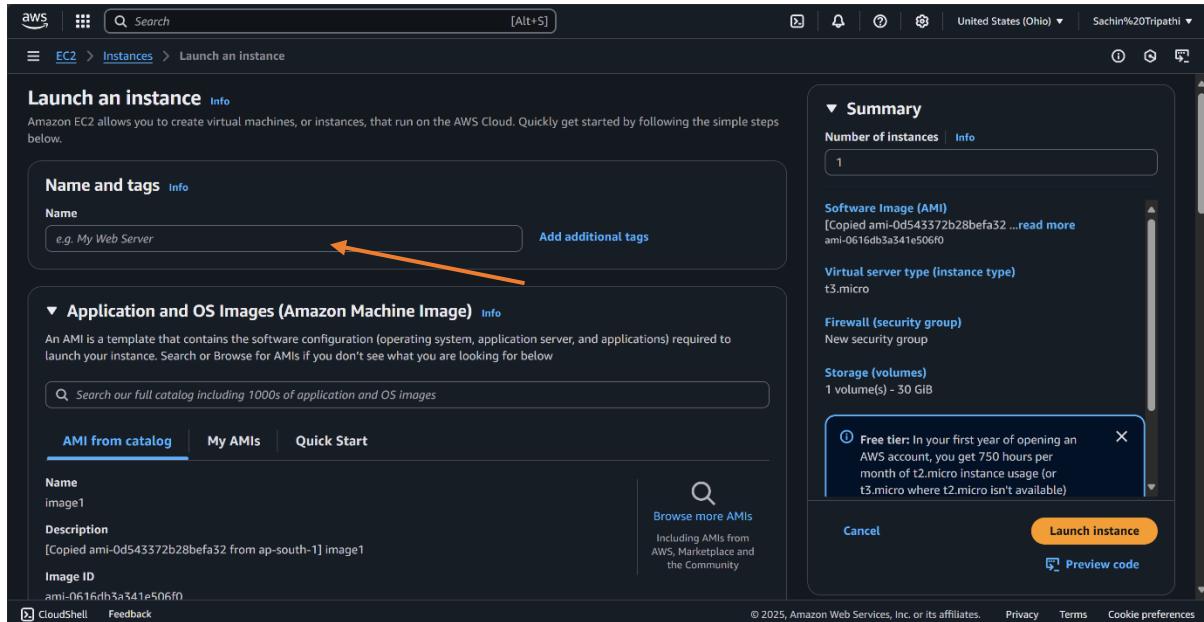
Step 6:-

- Change the region where you copy AMI.EX:-Ohio.
- Goto “AMI”.
- Check the status of AMI.
- If “Pending” then wait for few second until it “Available”.
- Click on “Launch instance from AMI”.



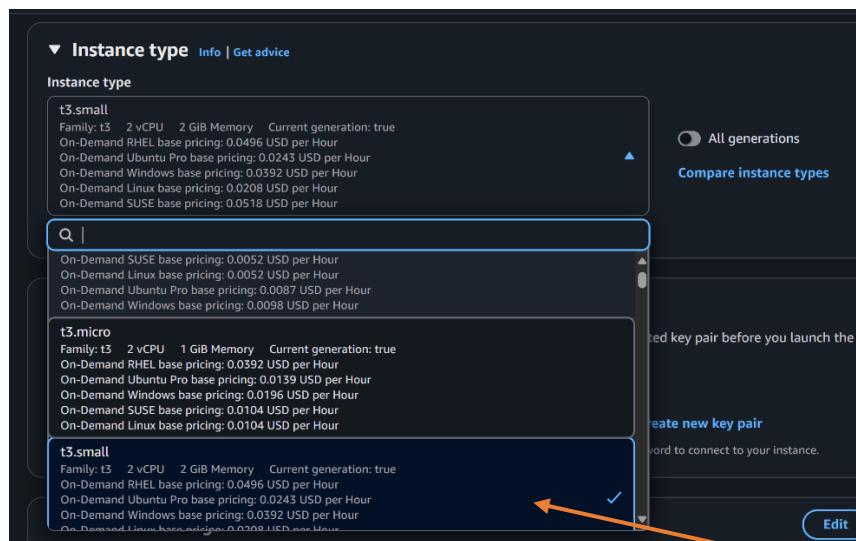
Step 7:-

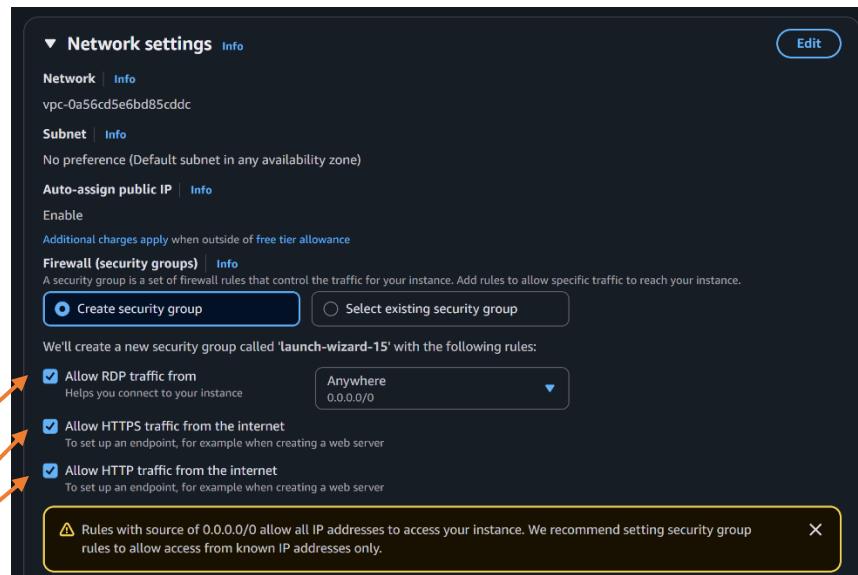
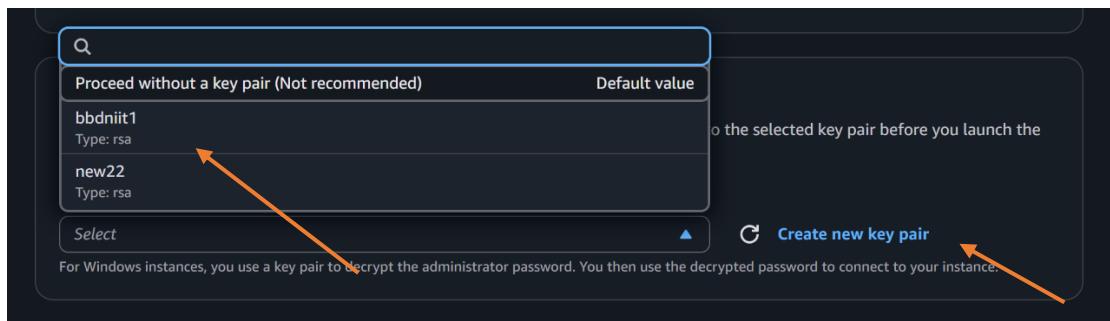
- Enter the name of the server “Name and tags”.
- “Application and OS Images” is already selected.



Step 8:-

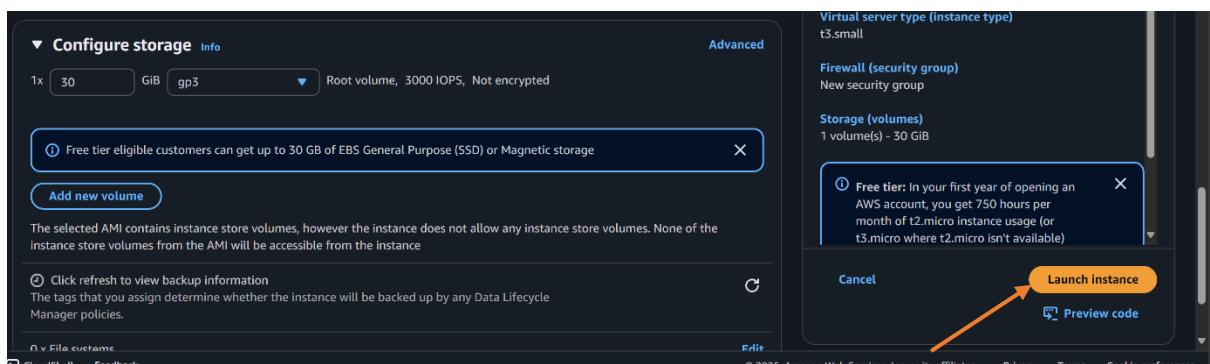
- Choose “Instance type” according to your need.
- “Create new key pair” or use old key pair.
- Check “RDP,HTTP,HTTPS”.

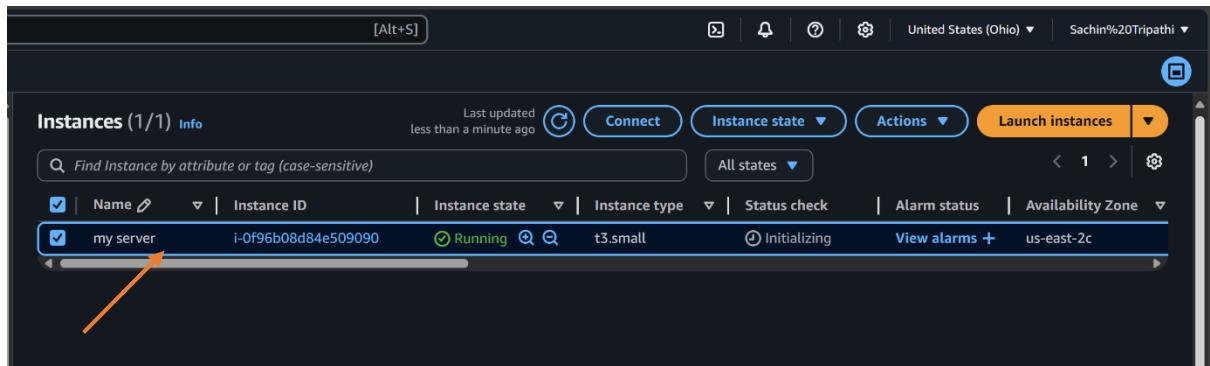




Step 9:-

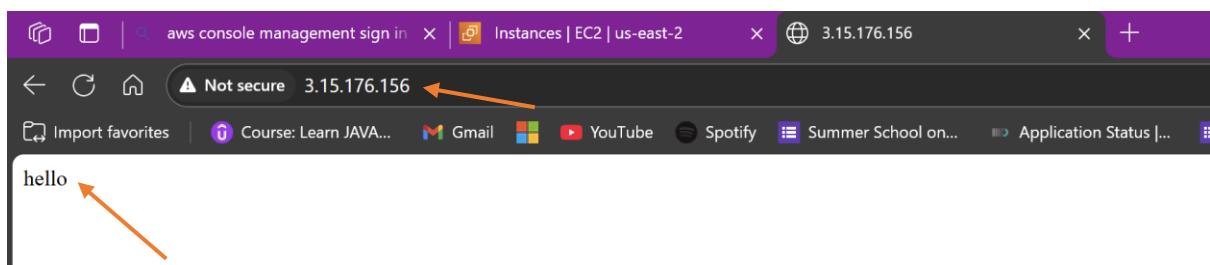
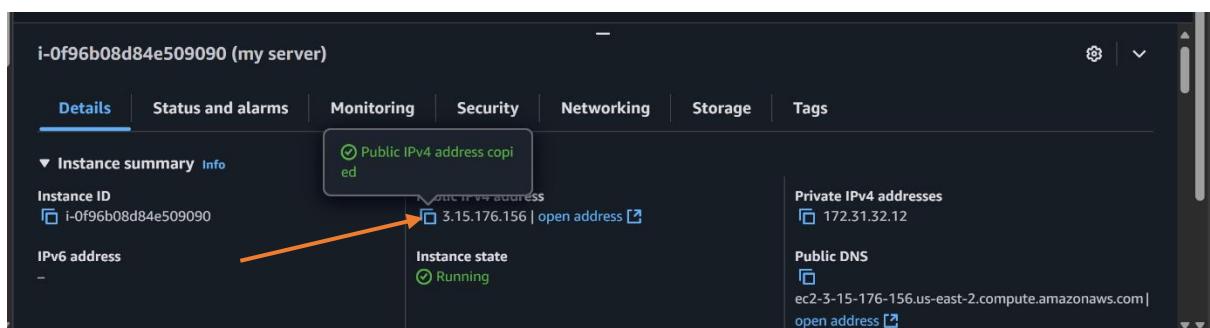
- Click on “Launch Instance”.
- Instance is created.





Step 10:-

- Goto to “Details”.
- Copy the IPv4 Address.
- Paste on the browser and search.
- The data or result will be same from where the AMI is created.



Step 11:-

- If you want to delete AMI.
- Select AMI.
- Goto to “Action”.
- Click on “Deregister AMI”.
- Check “Delete Associated snapshot” if you want.
- Click on “Deregister AMI”.
- AMI is Deregistered.

The screenshot shows the AWS Lambda console. In the top navigation bar, the URL is `https://lambda.us-east-1.amazonaws.com/functions/testfunction`. The main content area displays the function configuration with tabs for `Code`, `Test`, `Environment`, `Runtime`, `Memory`, and `Logs`. The `Code` tab is selected, showing the code editor with the following Python code:

```
def lambda_handler(event, context):  
    # Add your code here  
    return {  
        "statusCode": 200,  
        "body": "Hello world!"  
    }
```

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        "statusCode": 200,  
        "body": "Hello world!"  
    }
```

Create, Attach and Detach the VOLUME

In AWS, a volume is like a virtual hard disk (from Amazon EBS) that you attach to an EC2 instance to store data like files, apps, or databases. It works just like a regular drive, but in the cloud. You can attach it to use with an instance and detach it safely when needed — without losing data. This flexibility allows you to reuse, back up, or move your data easily between servers.

Step 1:-

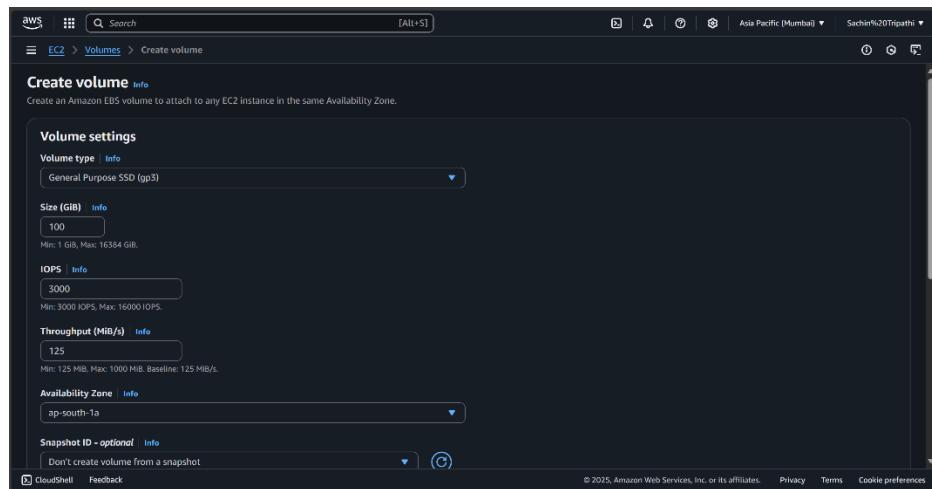
- Goto to EBC(Elastic Block Volume).
- Goto the “Volume”.
- There is already 30gb volume present. This is Root volume which is create at the time of instance created.
- Click on “Create Volume”.

The screenshot shows the AWS EC2 Instances page. On the left, there's a navigation sidebar with options like Dashboard, EC2 Global View, Events, Instances, Images, and Elastic Block Store. The 'Elastic Block Store' section is expanded, and its 'Volumes' option is highlighted with an orange arrow. In the main content area, there's a table for 'Instances (1/1) Info' showing one instance named 'This_Is_Micros...' with an Instance ID of 'i-0b8e8bb4d411264b7'. Below the instance details, there's a detailed view for 'i-0b8e8bb4d411264b7 (This_Is_Microsoft_Windows_Server)' showing its public and private IP addresses, instance state (Running), and DNS name (ec2-15-207-19-226.ap-south-1.compute.amazonaws.com). The bottom of the page includes standard AWS footer links.

The screenshot shows the AWS EBS Volumes page. At the top right, there's a prominent 'Create volume' button highlighted with an orange arrow. Below it, there's a table for 'Volumes (1) Info' showing one volume named 'vol-002afc650ba2fdca7' with a Type of 'gp3', Size of '30 GiB', IOPS of '3000', Throughput of '125', and a Snapshot ID of 'snap-0ca01db...'. The bottom of the page includes a 'Snapshot summary' section showing '0 / 1' recently backed up volumes and a note about the Data Lifecycle Manager default policy for EBS Snapshots status.

Step 2:-

- Choose the “Volume type”. Ex:- Magnetic(Standard).
- Enter the volume or “Size”(Min and Max size Is given). Ex:-5gb.



Volume settings

Volume type | [Info](#)

- General Purpose SSD (gp3) ✓
- General Purpose SSD (gp2)
- Provisioned IOPS SSD (io1)
- Provisioned IOPS SSD (io2)
- Cold HDD (sc1)
- Throughput Optimized HDD (st1)
- Magnetic (standard) ←

[Throughput \(MiB/s\)](#) | [Info](#)

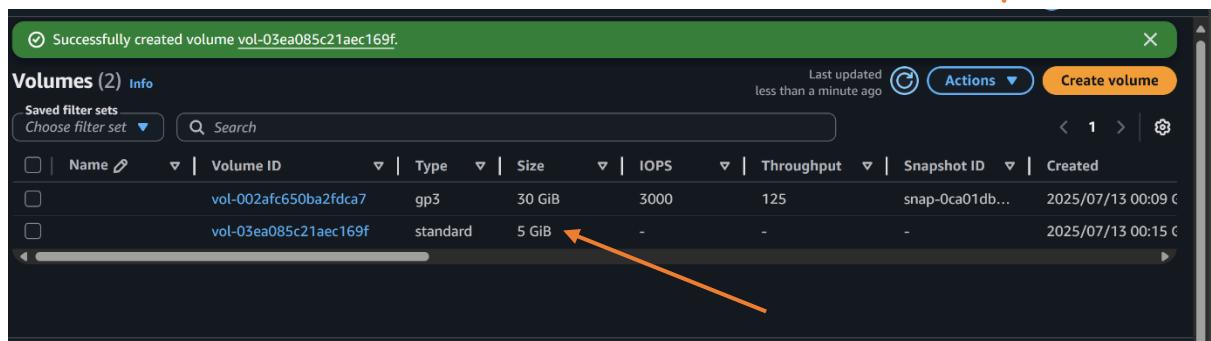
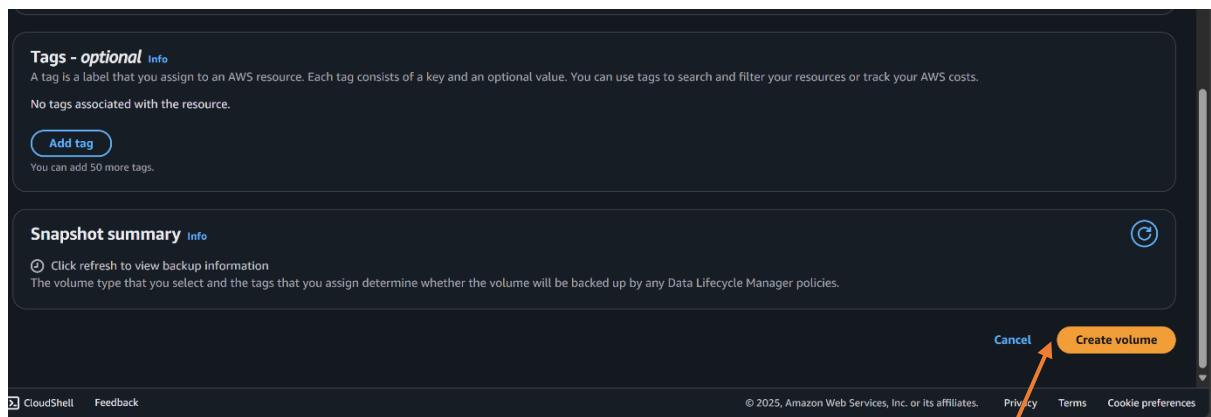
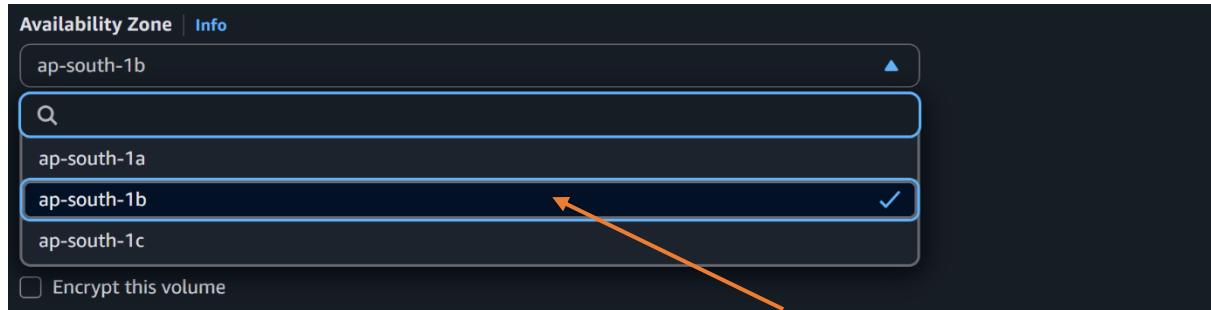
Size (GiB) | [Info](#)

5 ▲ ▼

Min: 1 GiB, Max: 1024 GiB.

Step 3:-

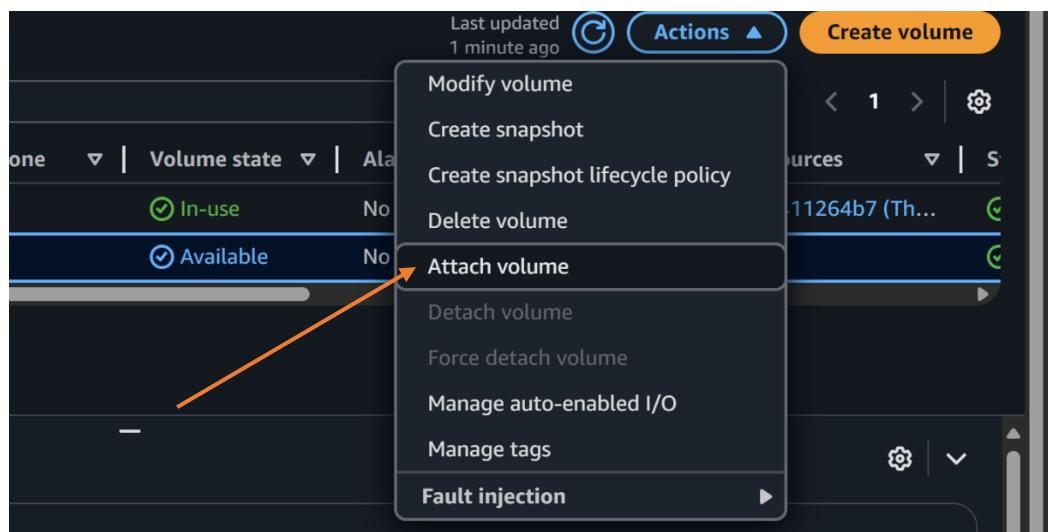
- Choose the “Availability Zone”, In that zone Instance is created.
- Click on “Create Volume”.
- Volume of 5gb is created.

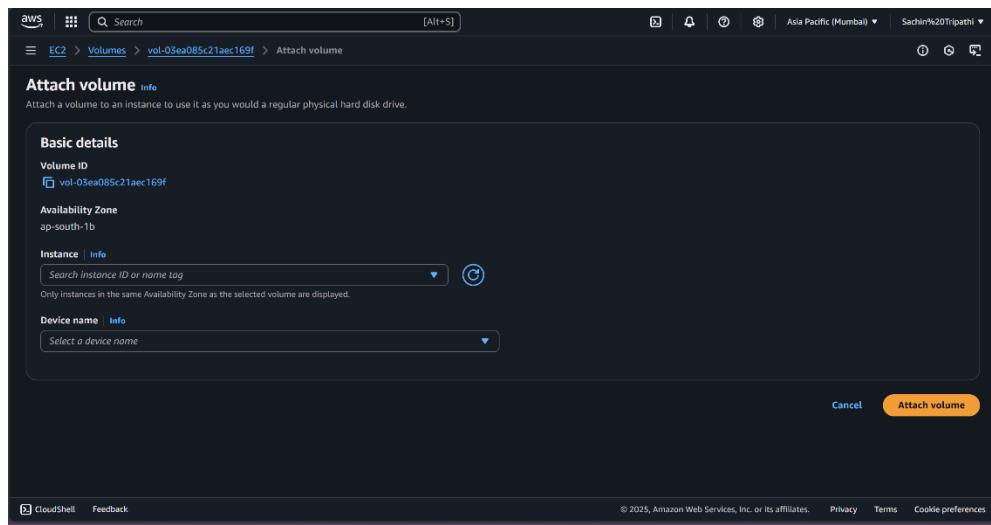


Step 4:-

- Check the status of created volume.
- If it is in “Use”.
- Goto “Action”.
- Click on “Attach Volume”.

	Availability Zone	Volume state	Alarm status	Attached resources
0:09 GMT+5:...	ap-south-1b	✓ In-use	No alarms	+ i-0b8e8bb4d4112
0:15 GMT+5:...	ap-south-1b	✓ Available	No alarms	+ -

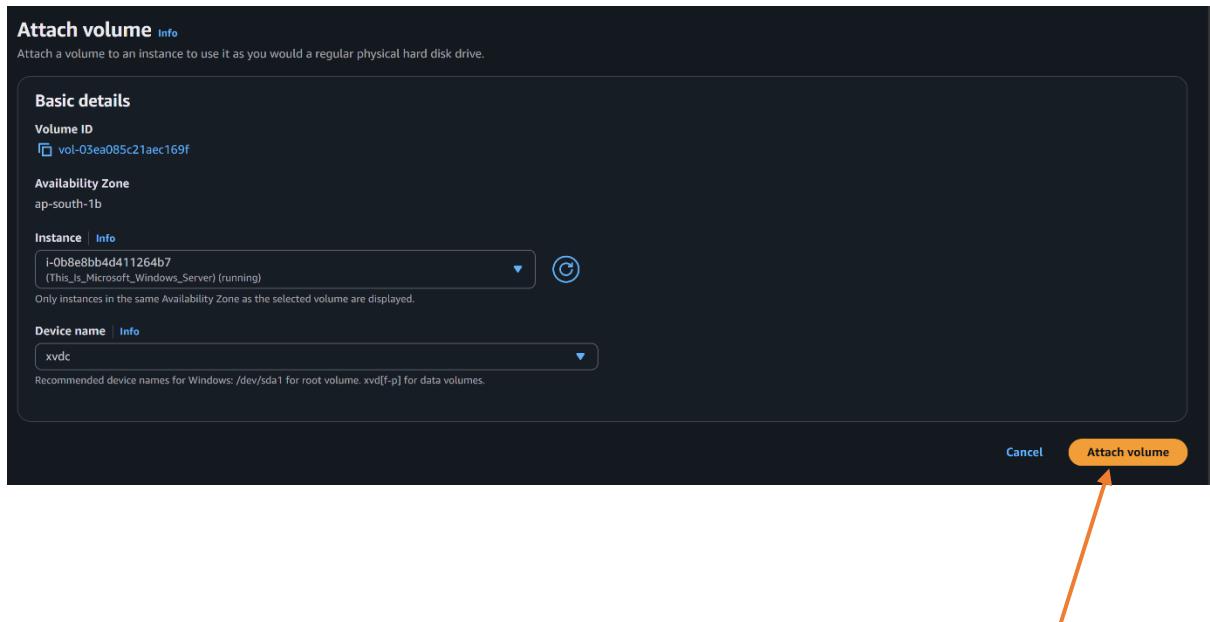




Step 5:-

- Choose the “Instance”.
- Choose the “Device Name”. Ex:-xxdc.
- Click on “Attach Volume”.

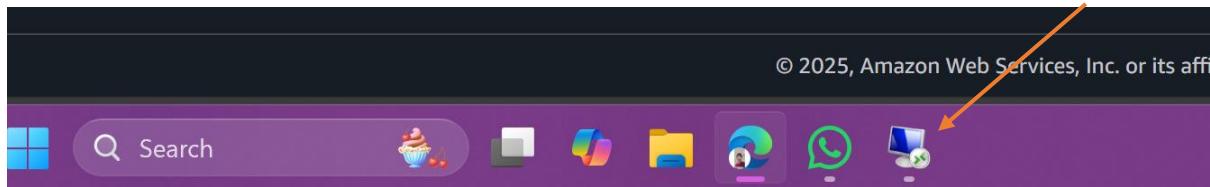
The image contains two screenshots. The top screenshot shows the 'Instance | Info' page with a search bar containing 'i-0b8e8bb4d411264b7 (This_Is_Microsoft_Windows_Server) (running)'. An orange arrow points from this instance ID to the 'Device name' dropdown in the 'Attach volume' dialog below. The bottom screenshot shows the 'Attach volume' dialog with the 'Device name' dropdown open, displaying options like /dev/sda1 (Windows), xvdb (Windows), xvdc (Windows), xvdd (Windows), xvde (Windows), xvdf (Windows), and xvdg (Windows). A second orange arrow points from the 'Device name' dropdown in the dialog back up to the same instance ID in the 'Instance | Info' page above.

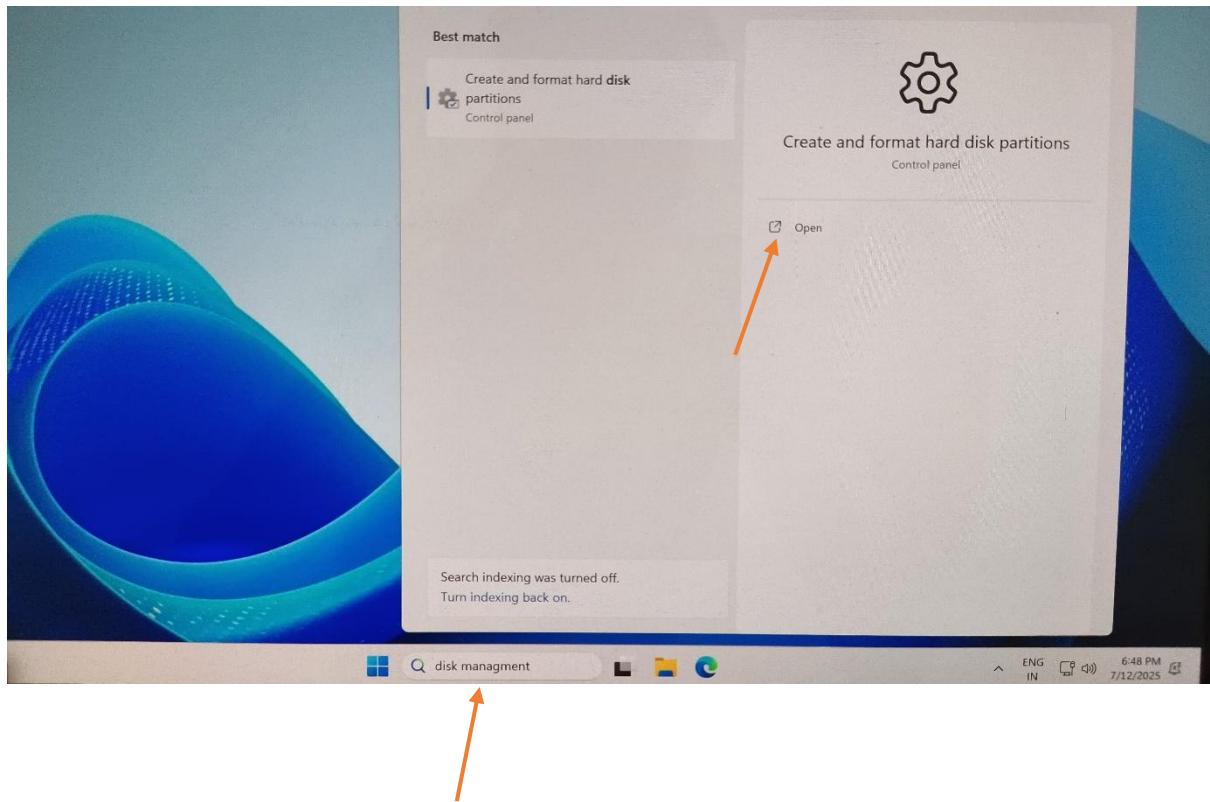


Step 6:-

- This Volume is also is “In-Use”.
- Goto the “Virtual Desktop”
- Goto “search”.
- Write “Disk Management”.
- Click on “Open”.

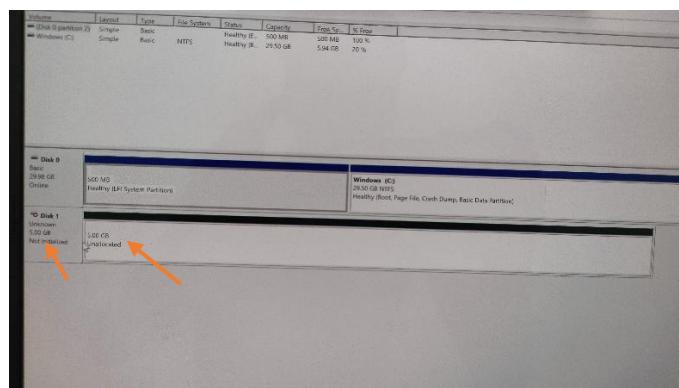
Volumes (2) <small>Info</small>							Last updated <small>less than a minute ago</small>	<small>C</small>	<small>Actions ▾</small>	Create volume
▼	Throughput	Snapshot ID	Created	▼	Availability Zone	▼	Volume state	▼	Alarm status	Attached res
125	snap-0ca01db...	2025/07/13 00:09 GMT+5:...	i-0b8e8bb4d411264b7	ap-south-1b	In-use	No alarms	+	i-0b8e8bb4d		
-	-	2025/07/13 00:15 GMT+5:...	i-0b8e8bb4d411264b7	ap-south-1b	In-use	No alarms	+	i-0b8e8bb4d		

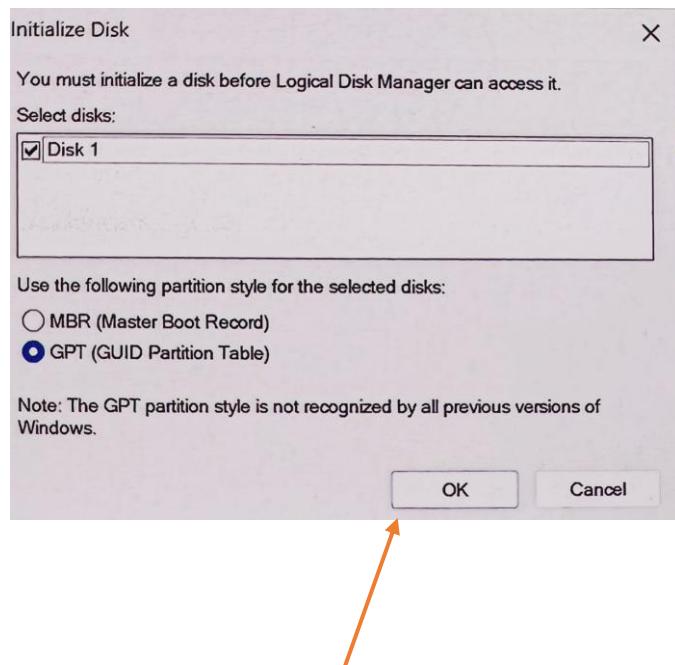
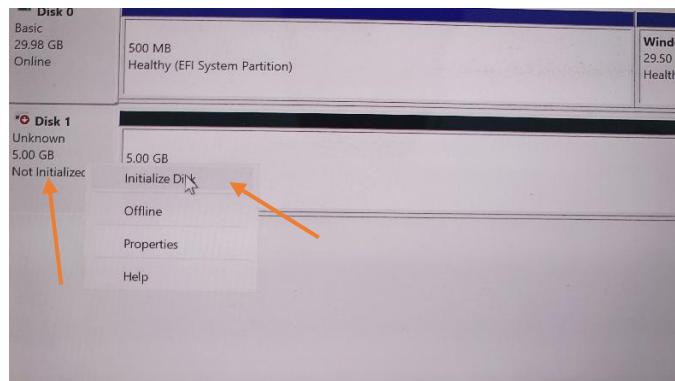




Step 7:-

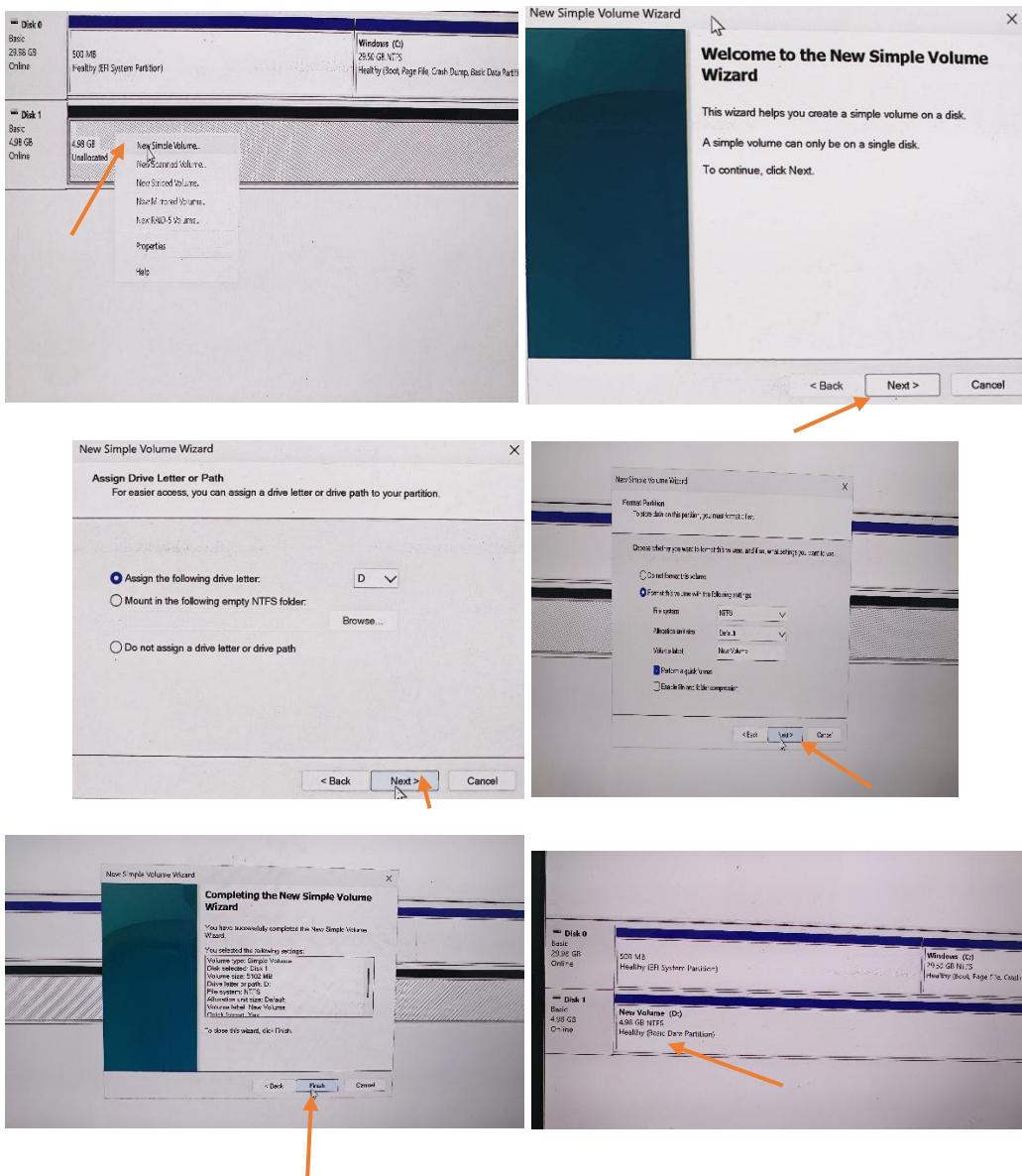
- ‘Disk 1’ is not initialized and unallocated.
- Right click on “Disk 1” box.
- Click on “Initialize Disk”.
- Click on “OK”.





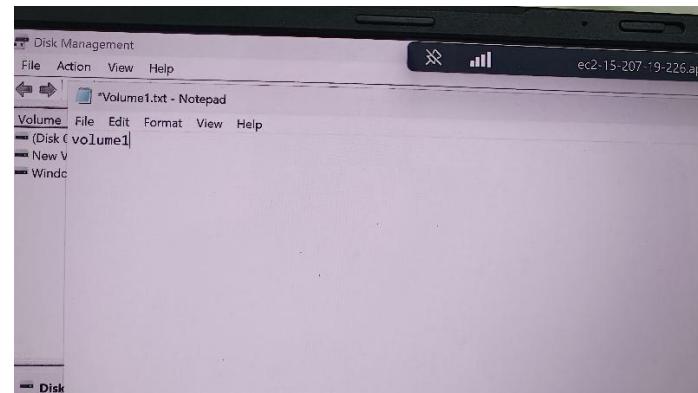
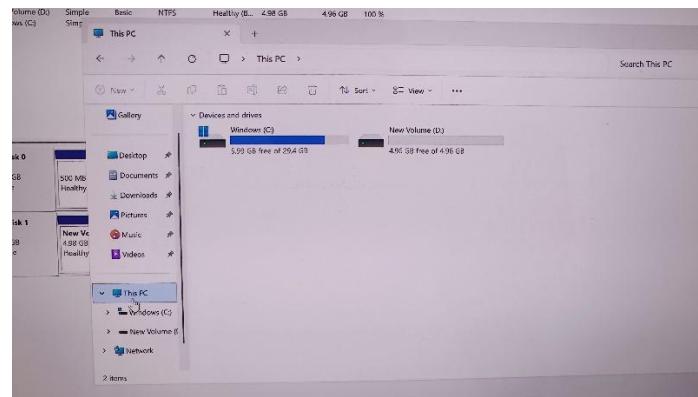
Step 8:-

- Right click on “Unallocated”(Right side block).
- Click on “New Simple Volume”.
- Click on “Next”.
- In “assign drive letter or path” click on “Next”.
- In “Format Partition” click on “Next”.
- At last Click on “Finish”.
- Disk 1 is Online.



Step 9:-

- Goto the “File explorer” in the Remote desktop.
- Goto to the “This PC”.
- Click on “D drive”.
- Create a file or copy and paste any file from the local desktop to remote desktop “D drive”.
- Save that file. Ex:- Volume 1.txt.



Step 10:-

- Now Back to Volume.
- Select the volume which is created.
- Goto to “Action”.
- Select “Detach Volume”
- Click on “Detach”.
- Volume is Detached from the root volume.
- Now to is again show status is “Available”.
- Now if you want to terminate the Instance then terminate the data is saved in the volume (not root volume). When you want then attach to the server at the same zone.

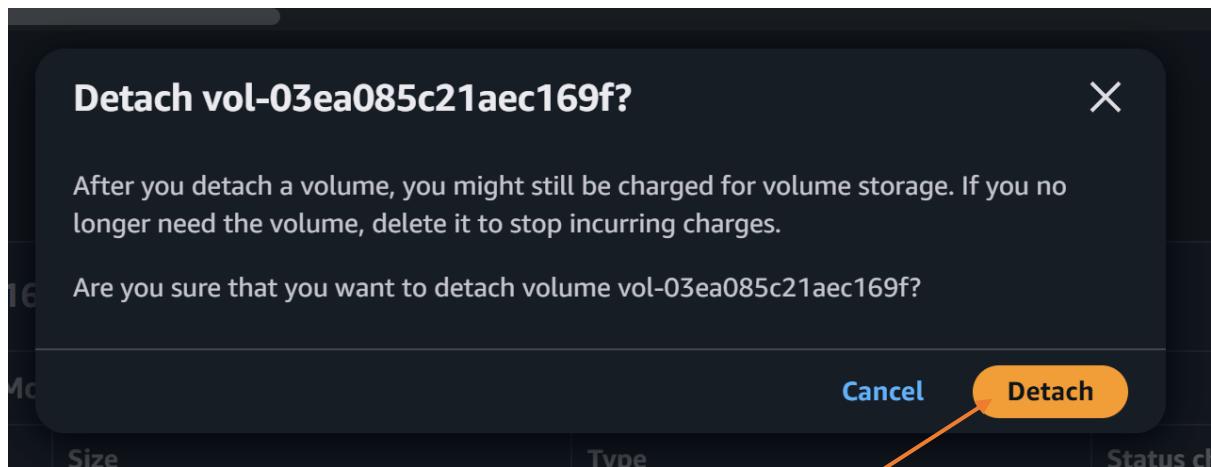
Name	Volume ID	Type	Size	IOPS	T
	vol-002afc650ba2fdca7	gp3	30 GiB	3000	1
<input checked="" type="checkbox"/>	vol-03ea085c21aec169f	standard	5 GiB	-	1

Last updated less than a minute ago Actions ▾ Create volume

Actions ▾

- Modify volume
- Create snapshot
- Create snapshot lifecycle policy
- Delete volume
- Detach volume
- Attach volume
- Force detach volume
- Manage auto-enabled I/O
- Manage tags
- Fault injection

Created 2025/07/13 00:09 C 2025/07/13 00:15 C



Volumes (2) Info									
ID	Throughput	Snapshot ID	Created	Availability Zone	Volume state	Alarm status	Attache...	Actions	
								Last updated	Create volume
i-03ea085c21aec169f	125	snap-0ca01db...	2025/07/13 00:09 GMT+5:...	ap-south-1b	In-use	No alarms	+	i-0b1	
i-03ea085c21aec169f	-	-	2025/07/13 00:15 GMT+5:...	ap-south-1b	Available	No alarms	+	-	

SNAPSHOT

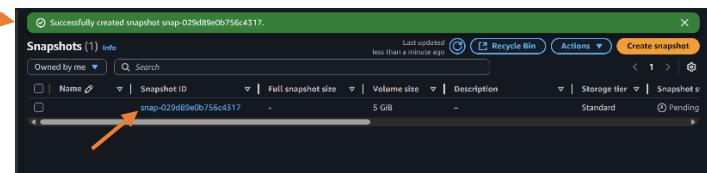
In AWS, a snapshot is like taking a picture or backup of your EBS volume at a specific moment. It saves all the data so you can restore it later if something goes wrong or if you need to create a copy. Snapshots are stored in Amazon S3, making them durable and easy to access. You can also use a snapshot to create a new volume with the same data.

Step 1:-

- Goto EBS(Elastic Block storage).
- Click on “Create snapshot”.
- Choose the “Volume ID”.
- Click on “Create snapshot”.

The image consists of three vertically stacked screenshots from the AWS EC2 console, illustrating the steps to create a snapshot:

- Screenshot 1: EC2 Dashboard - Snapshots**
Shows the EC2 dashboard with the "Snapshots" section selected. A red arrow points to the "Volumes" link under the "Elastic Block Store" category.
- Screenshot 2: Create snapshot - Step 1**
Shows the "Create snapshot" wizard step 1. The "Source" section is selected, with the "Volume" radio button chosen. A red arrow points to the "Volume ID" input field, which contains "vol-03ea085c21aec169f".
The "Snapshot details" section shows a description input field with "Test snapshot" and a note about the 1TB size limit.
- Screenshot 3: Create snapshot - Step 2**
Shows the "Tags" section of the wizard. A red arrow points to the "Select a volume" dropdown, which lists "vol-03ea085c21aec169f" and "ap-south-1b".
The "Tags" section notes that tags are optional and can be used for search and cost tracking.
At the bottom right, a red arrow points to the "Create snapshot" button.



Step 2:-

- Check the “status” of snapshot.
- If it is “completed”.
- Select snapshot.
- Goto “Action”.
- Click on “copy Snapshot”.
- Choose the “Destination Region”. Ex:-Us-east-2.
- Click on “Create snapshot”.
- Snapshot created at that region.

Snapshots (1/1) Info

Name	Snapshot ID	Full snapshot size	Volume size
<input checked="" type="checkbox"/> snap-029d89e0b756c4517	snap-029d89e0b756c4517	20.5 MB	5 GB

Actions

- Create volume from snapshot
- Create image from snapshot
- Set tier
- Snapshot settings
- Archiving
- Copy snapshot
- Launch copy duration calculator
- Delete snapshot
- Manage tags
- Copy

Copy snapshot info

Source snapshot

Region: ap-south-1

Snapshot copy details

Description: [Copied snap-029d89e0b756c4517 from ap-south-1]

Destination Region: ap-south-1

Time-based copy: new

Encryption info

Destination Region

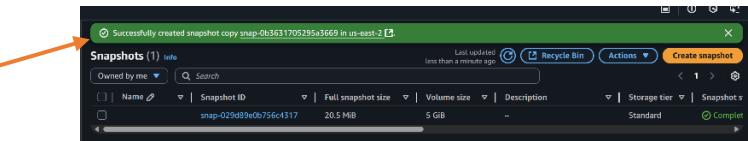
Region: us-east-2

Tags - optional

No tags associated with this resource.

Add tag

Cancel Copy snapshot



Step 3:-

- Change the region where copy the snapshot.
- Goto snapshot.
- Select the snapshot.
- Click on “Action”.
- Select “Create volume from snapshot”.
- Choose the “Volume type”. Ex:-magnetic(standard).

The first screenshot shows the "Solutions (1) Info" page with a single snapshot listed. An orange arrow points to the "Actions" button at the top right of the table.

The second screenshot shows the "Actions" menu for the selected snapshot. The "Create volume from snapshot" option is highlighted with an orange arrow. Another orange arrow points to the checkbox next to the snapshot entry in the list.

The third screenshot shows the "Create volume" configuration page. It includes fields for "Volume settings" (Snapshot ID: snap-0b3631705295a3669, Volume type: General Purpose SSD (gp3), Size (GiB): 5, IOPS: 3000, Throughput (MiB/s): 125, Availability Zone: us-east-2a), and "Advanced settings" (Encryption: Off, Multi-Volume: Off, Provisioned IOPS (PIOPS): 0, PIOPS Throughput (MiB/s): 0, Snapshot settings: Standard, Archiving: Off). An orange arrow points to the "Volume type" dropdown.

This screenshot shows the "Create volume" configuration page. The "Volume settings" section is expanded, showing the following details:

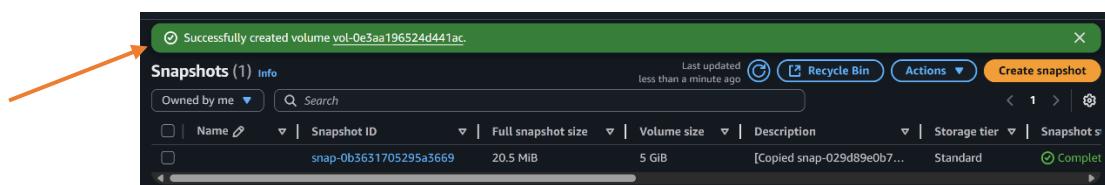
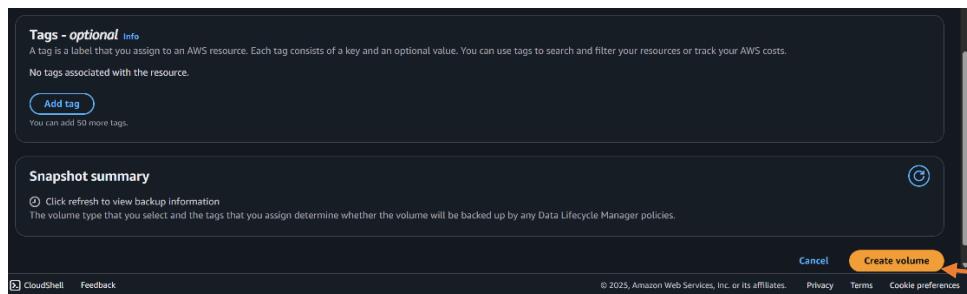
- Snapshot ID:** snap-0b3631705295a3669
- Volume type:** General Purpose SSD (gp3) (highlighted with an orange arrow)
- Size (GiB):** 5
- IOPS:** 3000
- Throughput (MiB/s):** 125
- Availability Zone:** us-east-2a

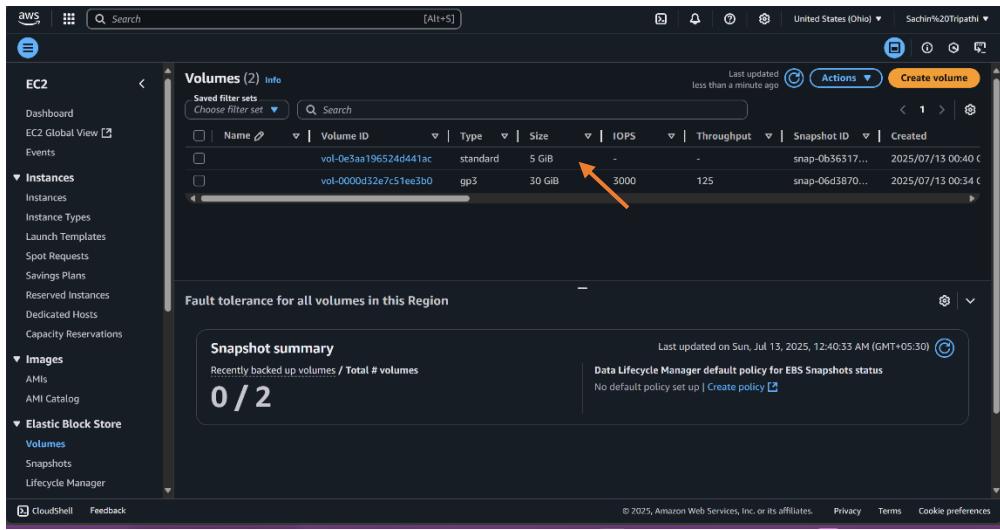
The "Advanced settings" section is partially visible below. The bottom of the page includes standard AWS navigation links: CloudShell, Feedback, © 2025, Amazon Web Services, Inc. or its affiliates., Privacy, Terms, and Cookie preferences.



Step 4:-

- Choose the “Availability zone”, in which zone where instance is present at that region. Ex:- us-east-2c.
- Click on “create volume”.
- Volume is created.



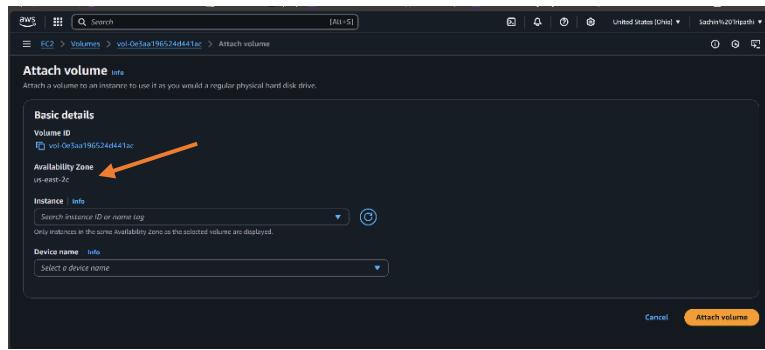


Step 5:-

- Check the status of volume.
- If it is “Available”.
- Then select volume.
- Goto “Action”.
- Click on “Attach volume”.
- Choose the instance.

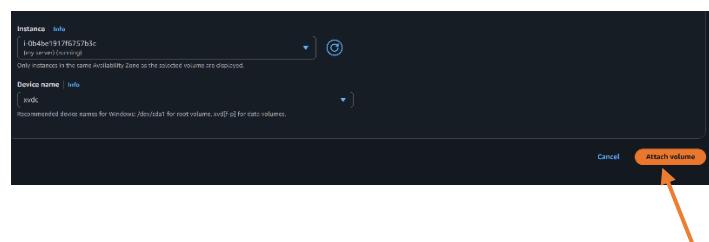
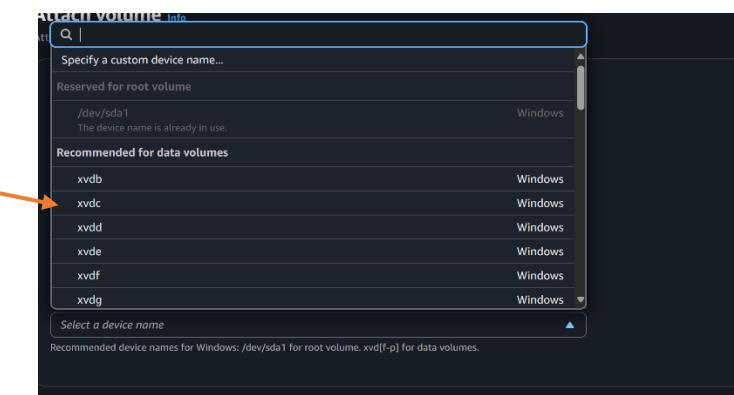
This screenshot shows the AWS CloudWatch Metrics page. It lists two metrics: 'Availability Zone' (status Available) and 'Volume state' (status In-use). An orange arrow points to the 'Available' status under the Availability Zone metric.

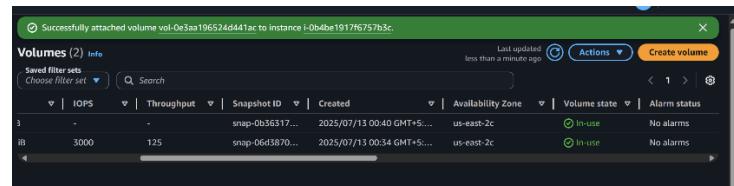
This screenshot shows the AWS EBS Volumes page with a context menu open over the gp3 volume. The menu options include Modify volume, Create snapshot, Create snapshot lifecycle policy, Delete volume, Attach volume, Detach volume, Force detach volume, Manage auto-enabled I/O, Manage tags, and Fault injection. An orange arrow points to the 'Attach volume' option.



Step 6:-

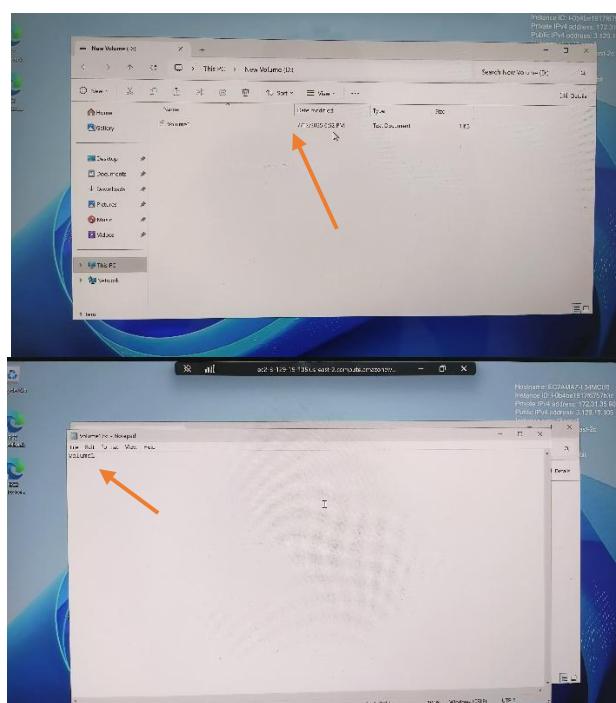
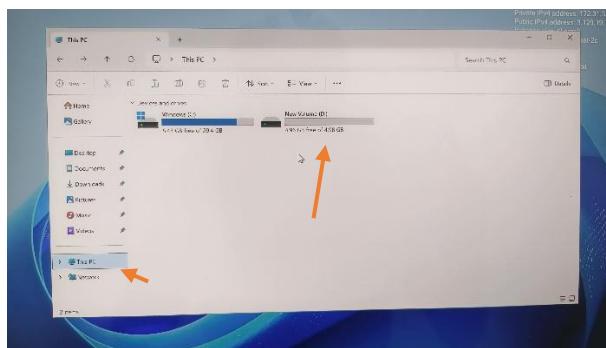
- Choose the “Device Name”. ex:- xxdc.
- Click on “Attach Volume”.
- Volume is successfully attached.
- Now it is “in-use”.





Step 7:-

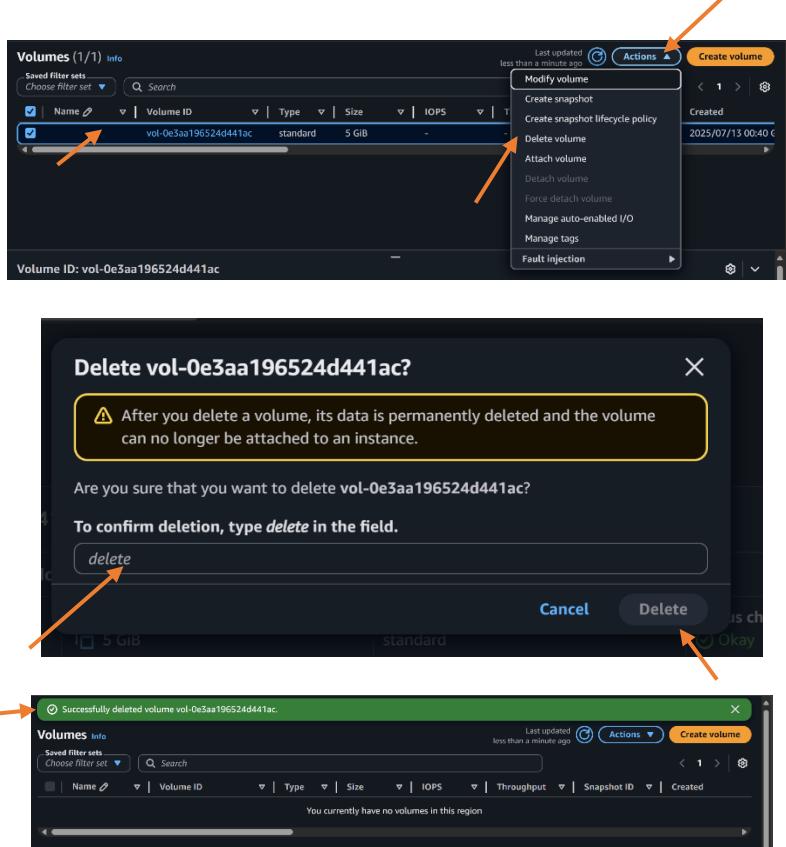
- Now goto to the Remote desktop.
- Goto “file explorer” in the Remote Desktop.
- Goto “This PC”.
- Click on “D drive”.
- The data which is saved in this volume is preserved and healthy.
- That data or file is present “volume 1”.



NOW DELETE THE VOLUME

Step 8:-

- Select the volume.
- Goto to “Action”.
- Click on “Delete Volume”.
- Enter “delete” and click on “delete”.
- Volume is deleted.



NOW DELETE THE SNAPSHOT

Step 8:-

- Select the Snapshot.
- Goto to “Action”.
- Click on “Delete snapshot”.
- Enter “delete” and click on “delete”.
- Snapshot is deleted.

Snapshots (1/1) Info

Last updated less than a minute ago

Actions ▾

Create snapshot

Owned by me ▾

Snapshot ID: snap-0b3631705295a3669

Full snapshot size: 20.5 MiB

Volume size: 5 GiB

Create volume from snapshot

Create image from snapshot

Copy snapshot

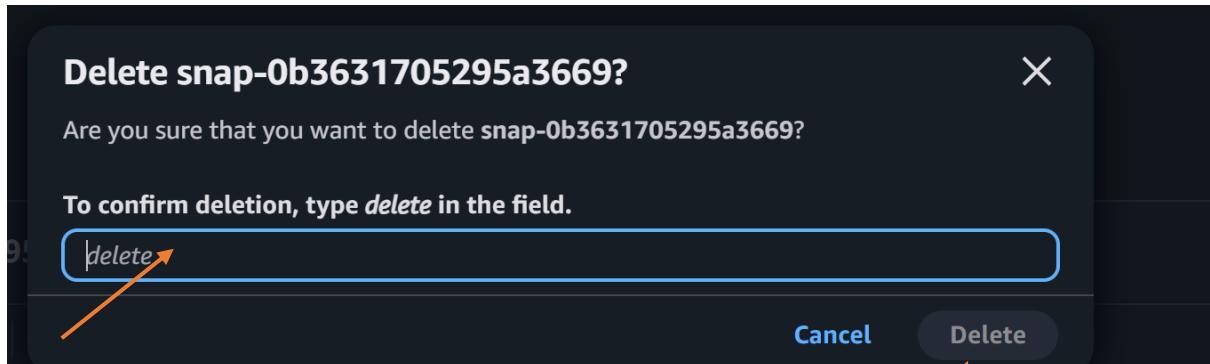
Launch copy duration calculator

Delete snapshot

Manage tags

Snapshot settings ▾

Archiving ▾



Successfully deleted snapshot snap-0b3631705295a3669.

Snapshots Info

Last updated less than a minute ago

Actions ▾

Create snapshot

Owned by me ▾

Snapshot ID

Full snapshot size

Volume size

Description

Storage tier

Snapshot settings

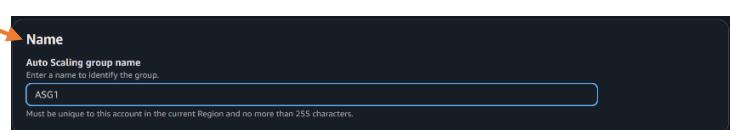
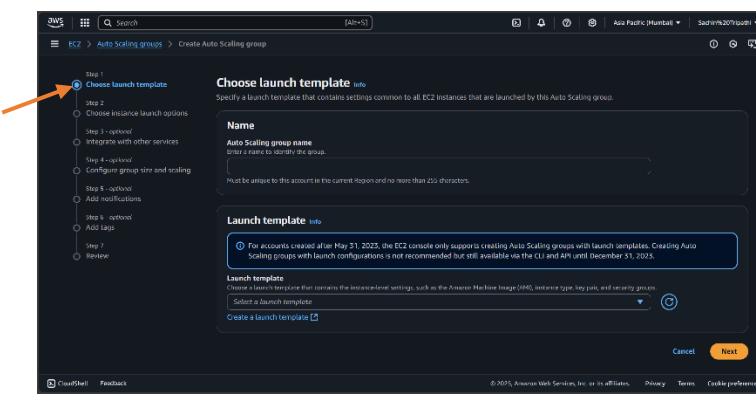
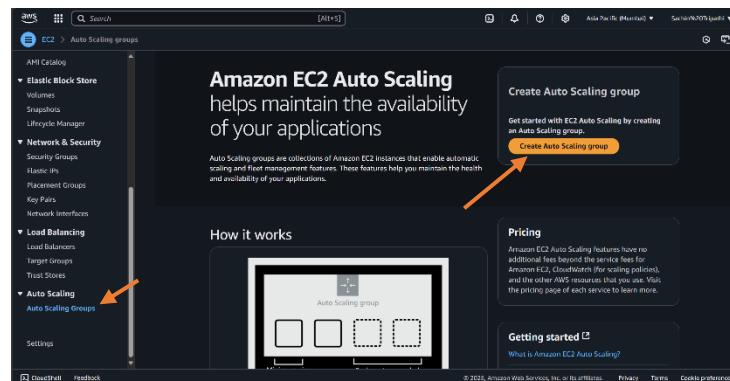
You currently have no snapshots in this Region.

Auto Scaling Group

An Auto Scaling Group (ASG) in AWS is like a team of EC2 instances that automatically grows or shrinks based on your app's needs. It helps keep your application available and cost-efficient by adding more servers when traffic is high and removing them when it's low. You set rules for how many instances to run, and AWS manages the rest. It also replaces unhealthy instances to keep things running smoothly.

Step 1:-

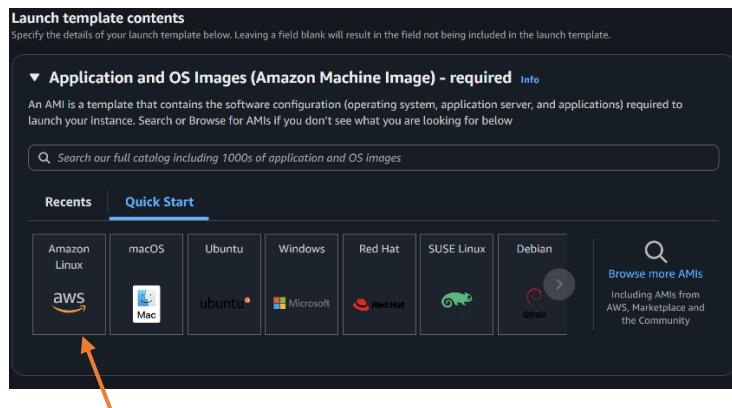
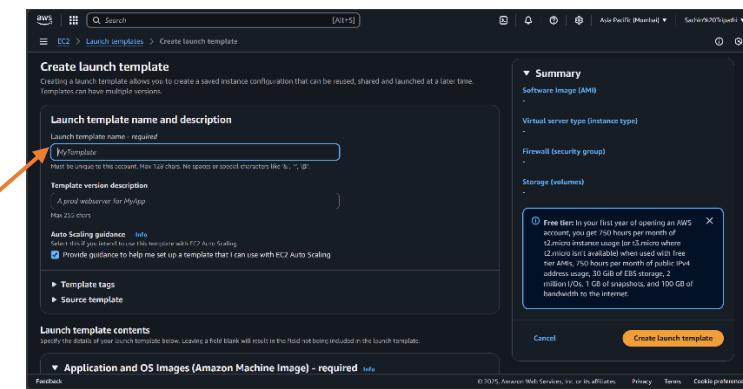
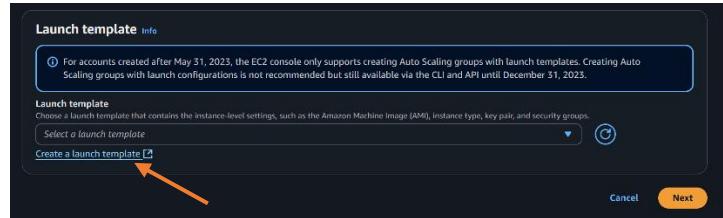
- Goto “Auto Scaling”.
- Select “Auto Scaling Groups”
- Click on “Create Auto Scaling group”.
- There are seven step in this.
- step 1, In “Choose launch template” write the “Auto scaling group name”. Ex:- ASG1.



Step 2:-

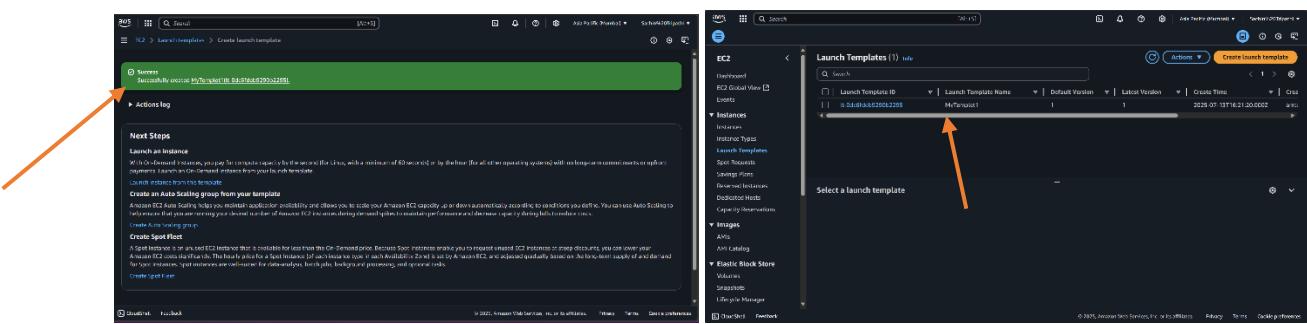
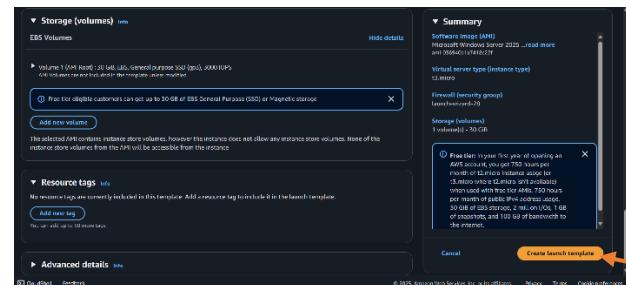
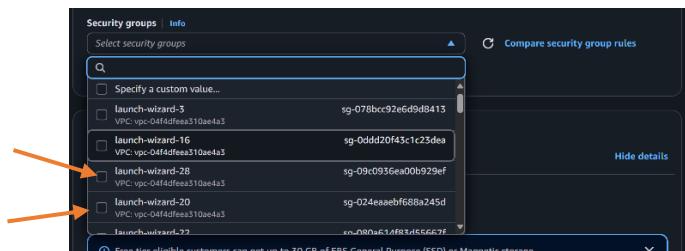
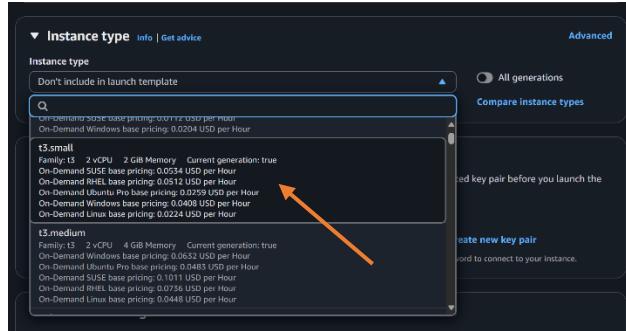
- In “Launch template” Click on “Create a launch template”.
- If already any template present then choose as per your need.
- Enter “Launch template name (required)”. Ex- MyTemplate1.

- Choose the “Application and OS images(required)”.



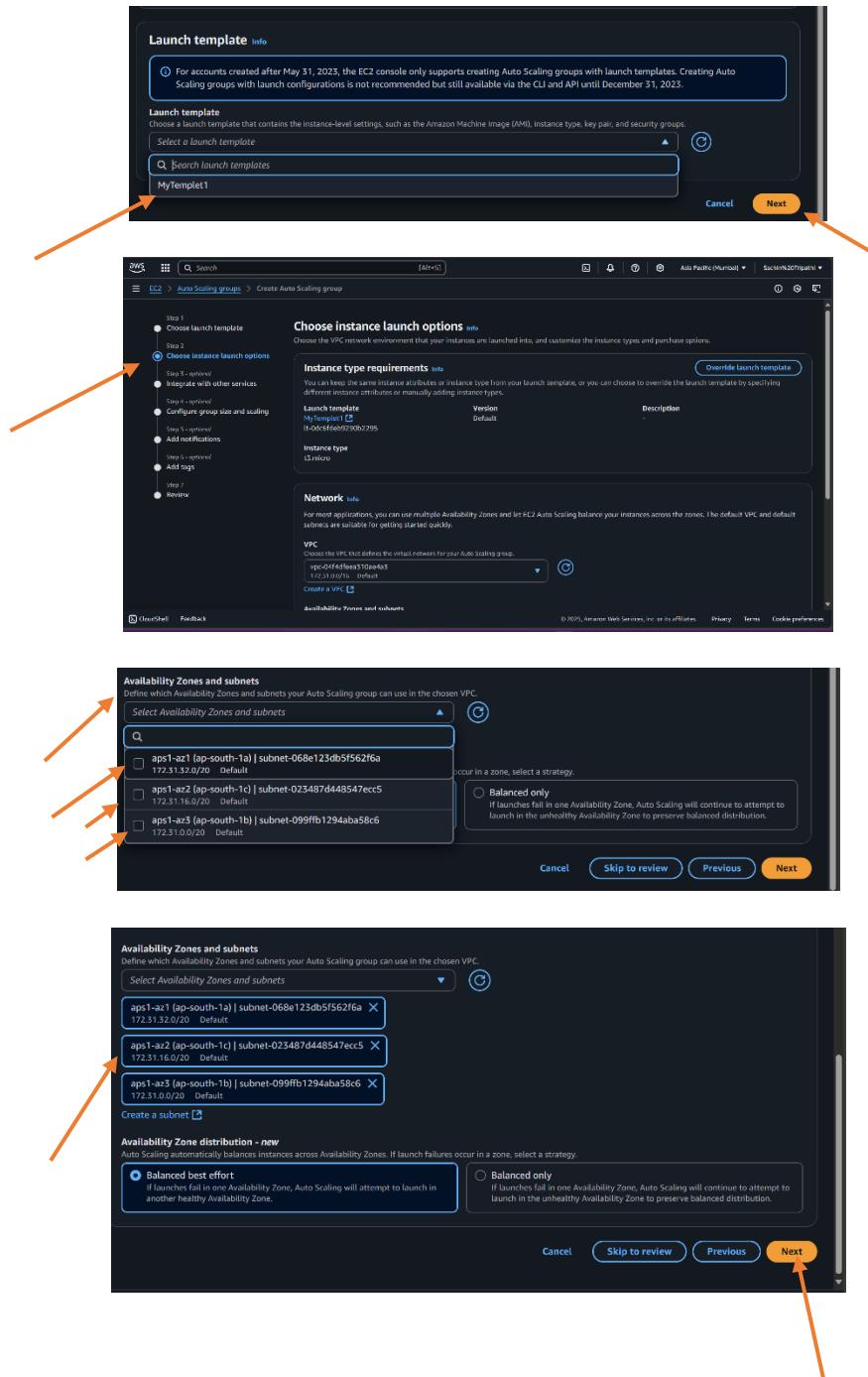
Step 3:-

- Choose the “Instance type” according to you need.
- Choose or create the “Key pair”.
- Select 2-3 “Security groups”.
- Click on “Create and launch Template”.
- Template is created.



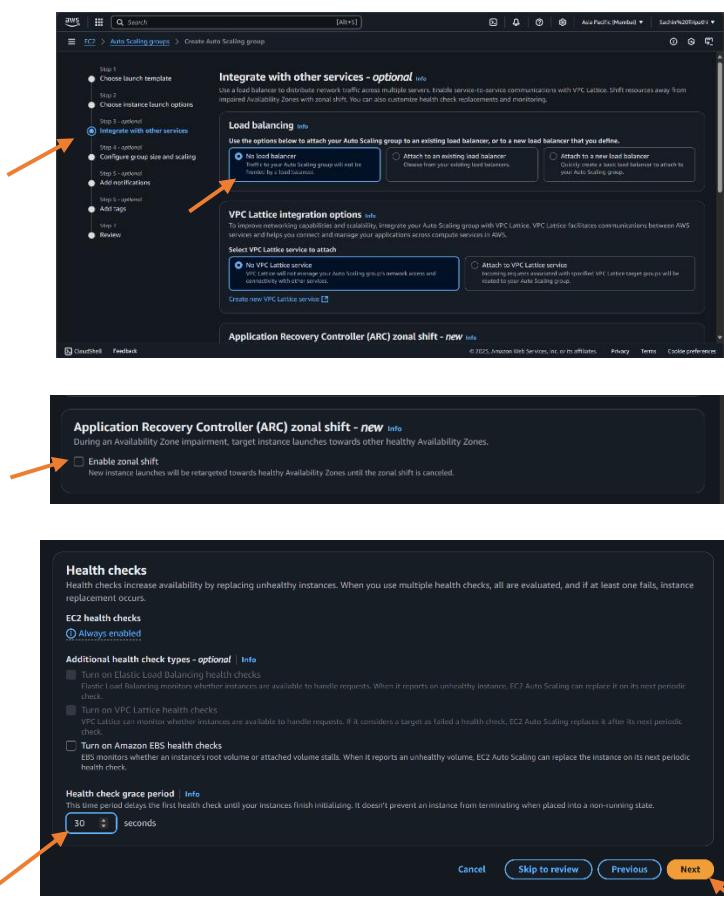
Step 4:-

- Return to the “Auto Scaling group” from where left.
- Select the “launch template”.
- Click on “Next”.
- Goto step 2, “Choose instance launch option”.
- Select the all “Availability zone and subnets”.
- In “Availability Zone distribution” select according to the need.
- Click on “Next”.



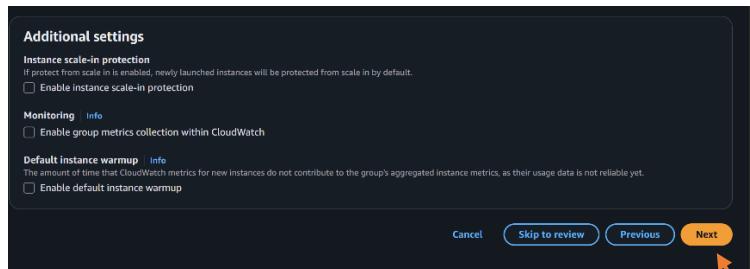
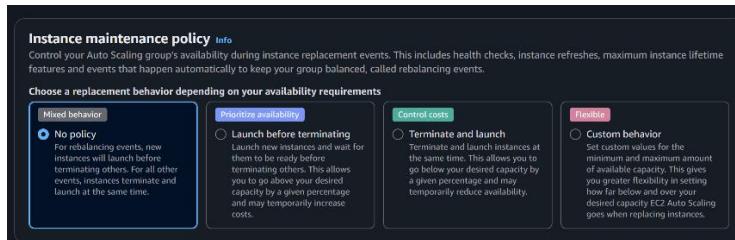
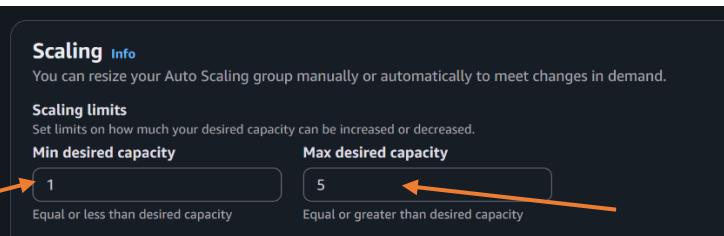
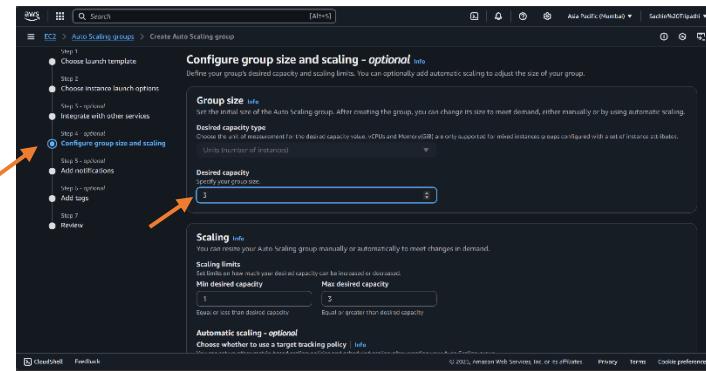
Step 5:-

- Step 3, Goto “Integrate with other services(optional)”.
- If there is any existing load balancer then attach with it if need.
- Also option to “Attach to a new load balancer”.
- If no need of load balancer then choose “No load balancer”.
- Check “Enable zonal shift” according to need or preference.
- In “Health check grace period” by default it is “300sec” given to a new instance to start and stabilize before health checks begin. If important then decrease the time.
- Click on “next”.



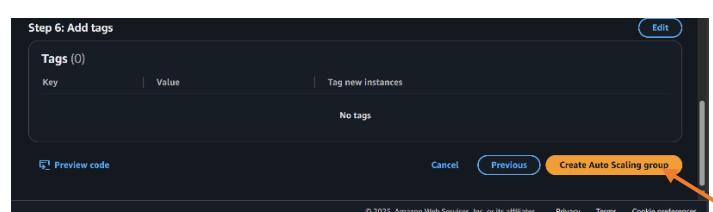
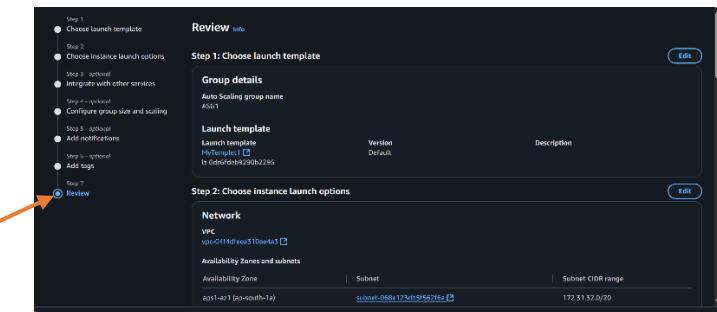
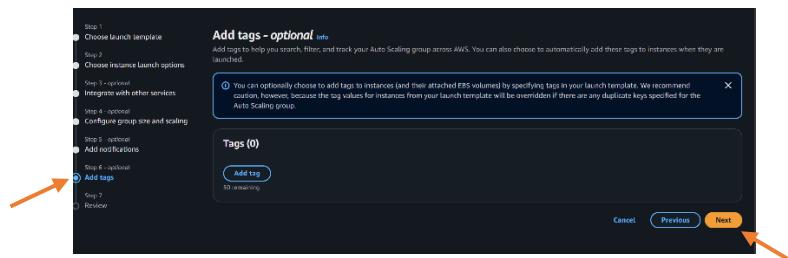
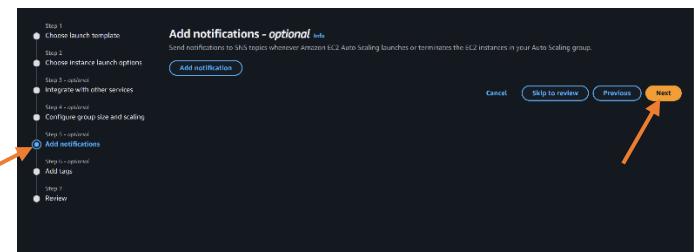
Step 6:-

- Step 4, Goto “Configure group size and scaling(optional)”.
- Enter the “desired capacity”, Desired Capacity is the number of EC2 instances the group tries to maintain at all times. Ex:- 3.
- “Minimum and Maximum Desired Capacity” define the lower and upper limits of EC2 instances the group can scale between automatically. Ex:- min(1) and max(5).
- In “Maintenance policy” choose "No Policy" means Auto Scaling will not follow any scheduled actions or constraints during maintenance events.
- Click on “next”.



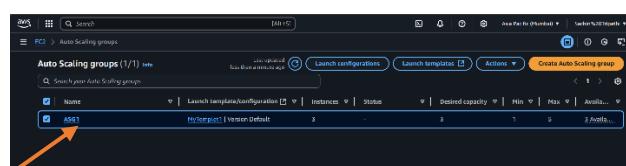
Step 7:-

- Step 5, “Add notification” click on “next”.
- Step 6, “Add tags” click on “next”.
- Step 7, “Review” the configuration.
- Click on “create auto scaling group”.



Step 8:-

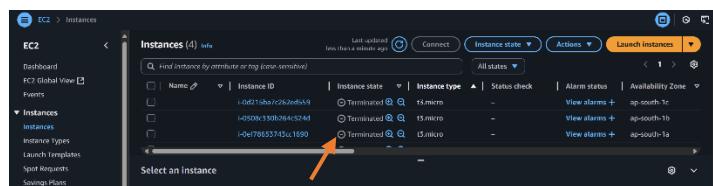
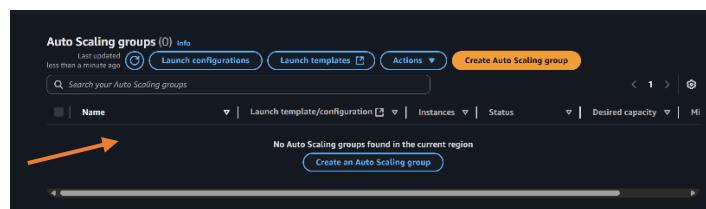
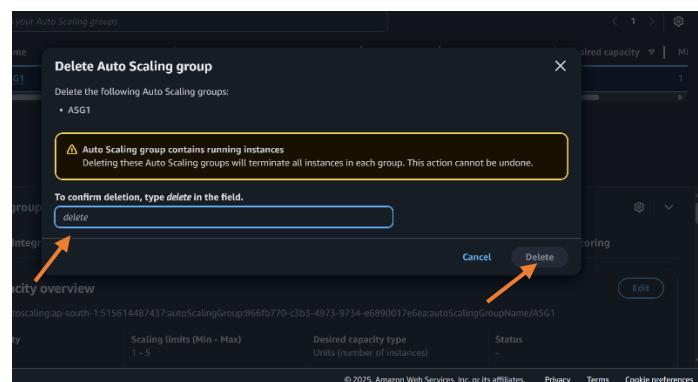
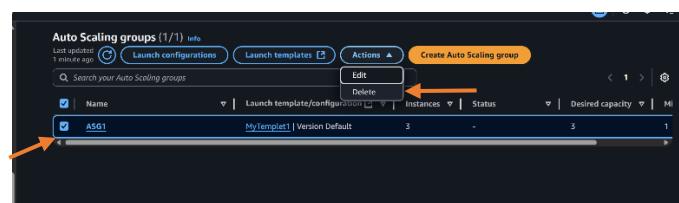
- “Auto scaling group” is created. Ex:- ASG1.
- Enter 3 in desired capacity hence there is 3 instances is created. If any instance terminated or unhealthy then new instance automatically created.



Auto Scaling Group Delete

Step 9:-

- If you want or any need of edit in Auto scaling group then there is option “Edit”.
- If you want to delete the Auto scaling group(ASG) then select the ASG.
- Goto “Action”.
- Click on “delete”.
- Enter “delete”.
- Click on “delete”.
- ASG is deleted.
- Also the instances is terminated automatically which is created by ASG when ASG deleted.

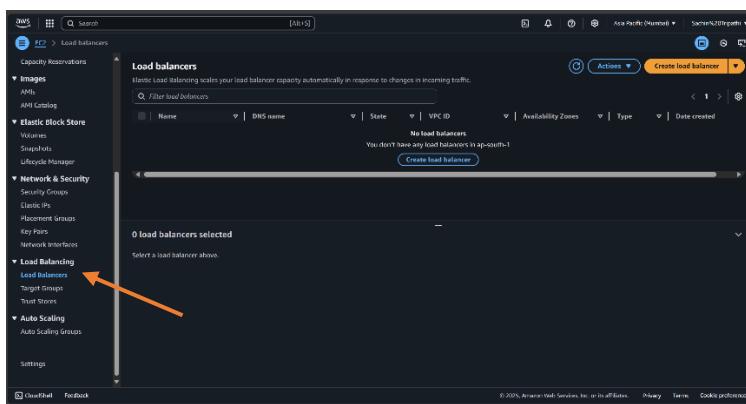
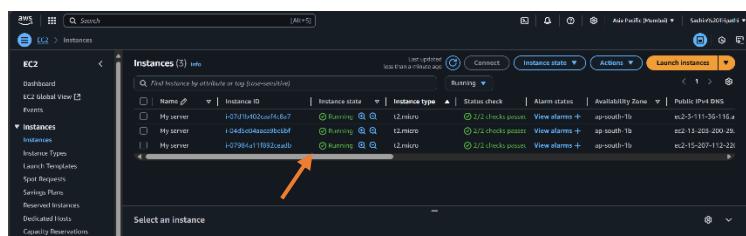


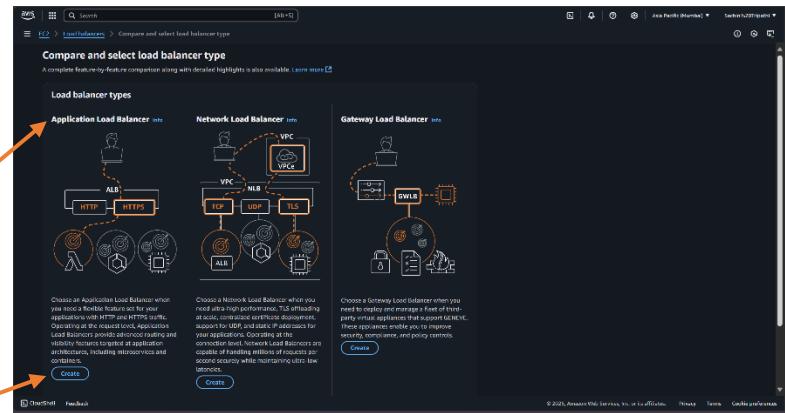
Load balancer

A Load Balancer in AWS acts like a traffic manager that spreads incoming requests across multiple servers (EC2 instances). This helps your app handle more users smoothly and prevents any one server from getting overloaded. It also checks if a server is working — and skips it if it's not. This makes your application more reliable, faster, and fault-tolerant.

Step 1:-

- Firstly create 3-4 or more instances and connect them with server.
- Goto “Load Balancing”.
- Click on “Load balancers”.
- Click on “create load balancer”.
- Select “Application load balancer”.
- Click on “create”.





Step 2:-

- Enter “Load balancer name”. Ex:- loadbalancer1.
- Select “Scheme” according to need. Ex:-Internet-facing.
- In “Network mapping”.
- Select all three “Availability zones and subnet”.

Load balancer name

Name must be unique within your AWS account and can't be changed after the load balancer is created.

A maximum of 32 alphanumeric characters including hyphens are allowed, but the name must not begin or end with a hyphen.

Scheme Info

Scheme can't be changed after the load balancer is created.

Internet-facing

- Serves internet-facing traffic.
- Has public IP addresses.
- DNS name resolves to public IPs.
- Requires a public subnet.

Internal

- Serves internal traffic.
- Has private IP addresses.
- DNS name resolves to private IPs.
- Compatible with the IPv4 and Dualstack IP address types.

Network mapping Info

The load balancer routes traffic to targets in the selected subnets, and in accordance with your IP address settings.

VPC Info

The load balancer will exist and scale within the selected VPC. The selected VPC is also where the load balancer targets must be hosted unless routing to Lambda or on-premises targets, or if using VPC peering. To confirm the VPC for your targets, view [target groups](#). For a new VPC, [create a VPC](#).

-
vpc-0414f9e3310e4e13
IPv4 VPC CIDR: 172.31.0.0/16

IP pools - new Info

You can optionally choose to configure an IPAM pool as the preferred source for your load balancer's IP addresses. Create or view Pools in [Amazon VPC IP Address Manager console](#).

Use IPAM pool for public IPv4 addresses

The IPAM pool you choose will be the preferred source of public IPv4 addresses. If the pool is depleted IPv4 addresses will be assigned by AWS.

Availability Zones and subnets Info

Select at least two Availability Zones and a subnet for each zone. A load balancer node will be placed in each selected zone and will automatically scale in response to traffic. The load balancer routes traffic to targets in the selected Availability Zones only.

ap-south-1a (apsl-az1)
 ap-south-1b (apsl-az2)
 ap-south-1c (apsl-az2)

Availability Zones and subnets [Info](#)

Select at least two Availability Zones and a subnet for each zone. A load balancer node will be placed in each selected zone and will automatically scale in response to traffic. The load balancer routes traffic to targets in the selected Availability Zones only.

- ap-south-1a (ap-s1-az1)

Subnet
Only CIDR blocks corresponding to the load balancer IP address type are used. At least 8 available IP addresses are required for your load balancer to scale efficiently.
subnet-068e123db5f562f6a
IPv4 subnet CIDR: 172.31.32.0/20
- ap-south-1b (ap-s1-az5)

Subnet
Only CIDR blocks corresponding to the load balancer IP address type are used. At least 8 available IP addresses are required for your load balancer to scale efficiently.
subnet-099fb1294aba58c6
IPv4 subnet CIDR: 172.31.0.0/20
- ap-south-1c (ap-s1-az2)

Subnet
Only CIDR blocks corresponding to the load balancer IP address type are used. At least 8 available IP addresses are required for your load balancer to scale efficiently.
subnet-023487dd44857ecc5
IPv4 subnet CIDR: 172.31.16.0/20

Step 3:-

- In “Security groups” choose latest 2-3 groups.
- In “Listeners and routing” click on “create target group”.
- Step 1 in “target group” is “Specify group details”,
- Choose “instance”.
- Enter “target group name”. Ex:- TG1.
- Click on “Next”.

Security groups [Info](#)

A security group is a set of firewall rules that control the traffic to your load balancer. Select an existing security group, or you can [create a new security group](#).

Security groups

Select up to 5 security groups

- launch-wizard-29 sg-01fe8ab5eb89e97a VPC: vpc-04f4df8ea310ae4a3
- default sg-069eb10aa447dd1ce VPC: vpc-04f4df8ea310ae4a3
- launch-wizard-31 sg-06bc96c9f53052a78 VPC: vpc-04f4df8ea310ae4a3

Listeners and routing [Info](#)

A listener is a process that checks for connection requests using the port and protocol you configure. The rules that you define for a listener determine how the load balancer routes requests to its registered targets.

Listener HTTP:80

Protocol	Port
HTTP	80
	1-65535

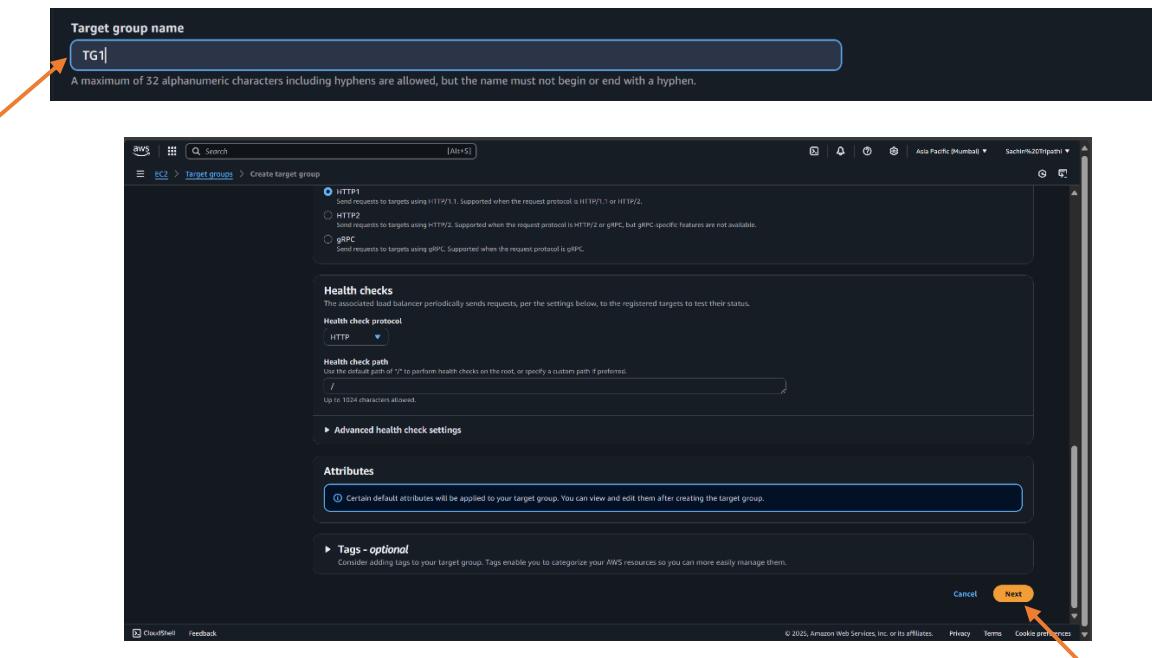
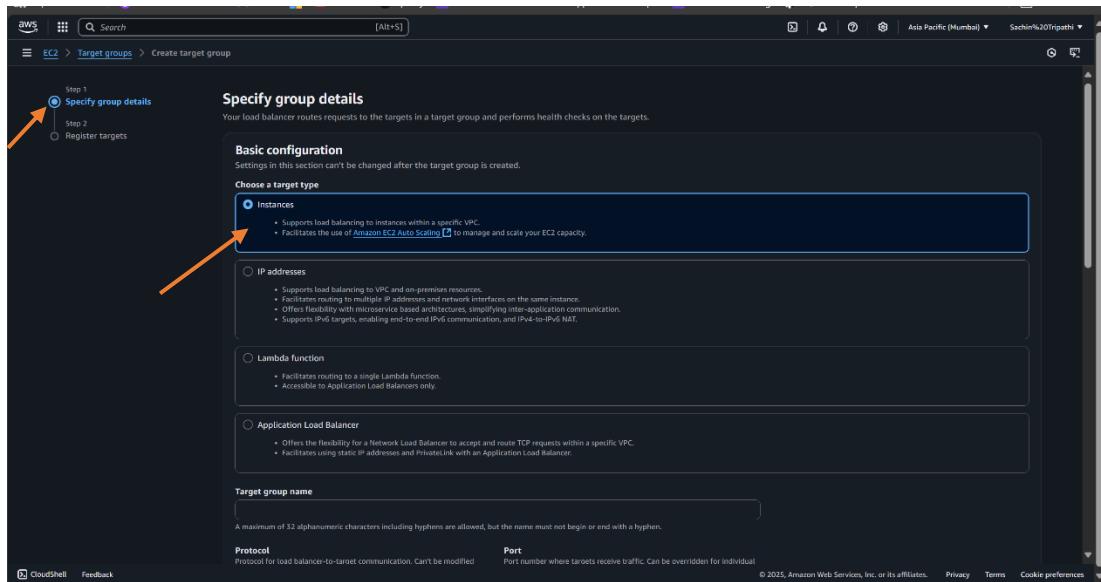
Default action [Info](#)

Forward to: [Select a target group](#) [Create target group](#)

Listener tags - optional

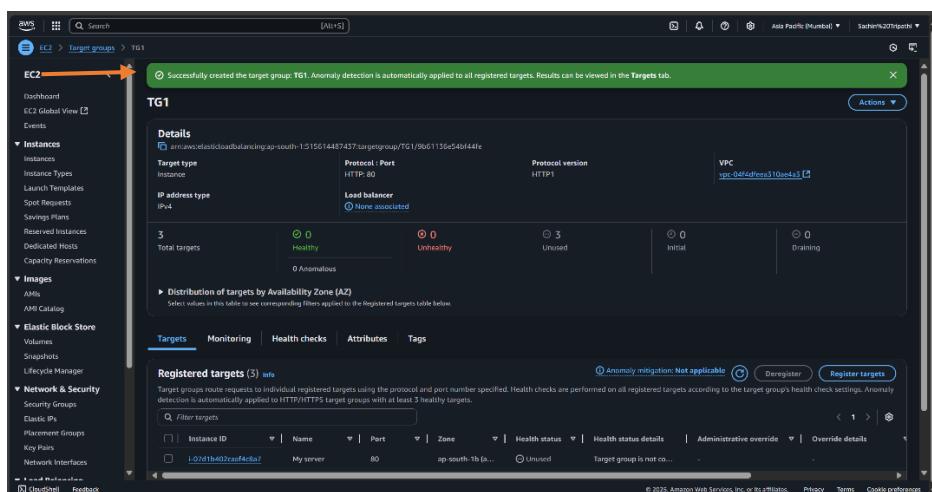
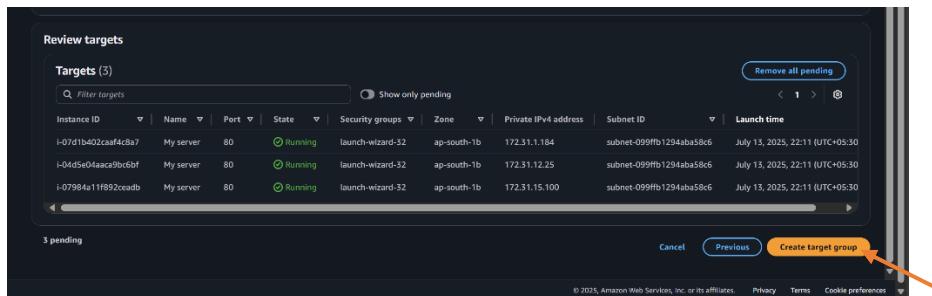
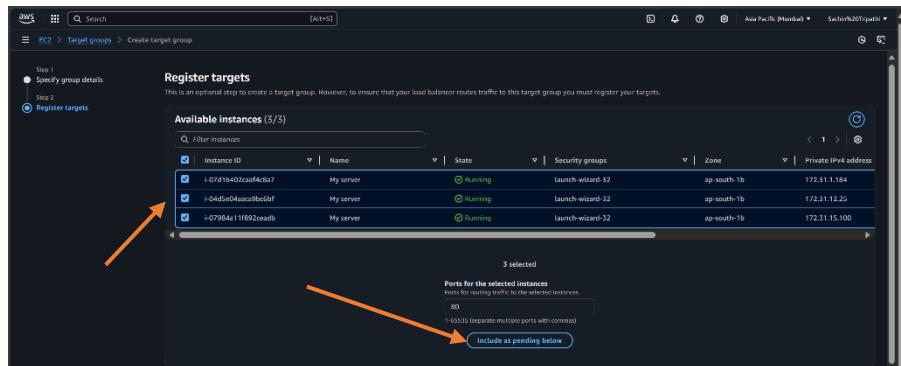
Add listener tag You can add up to 50 more tags.

[Add listener](#)



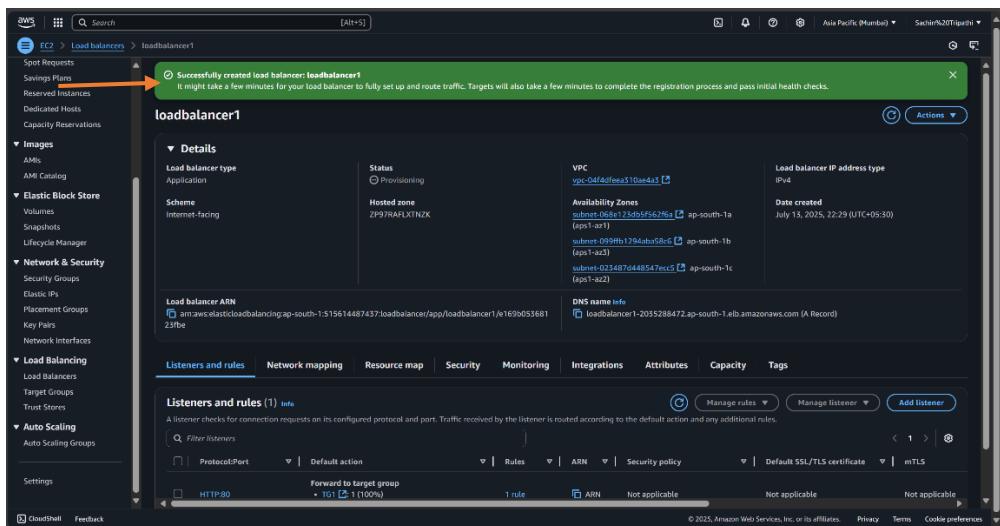
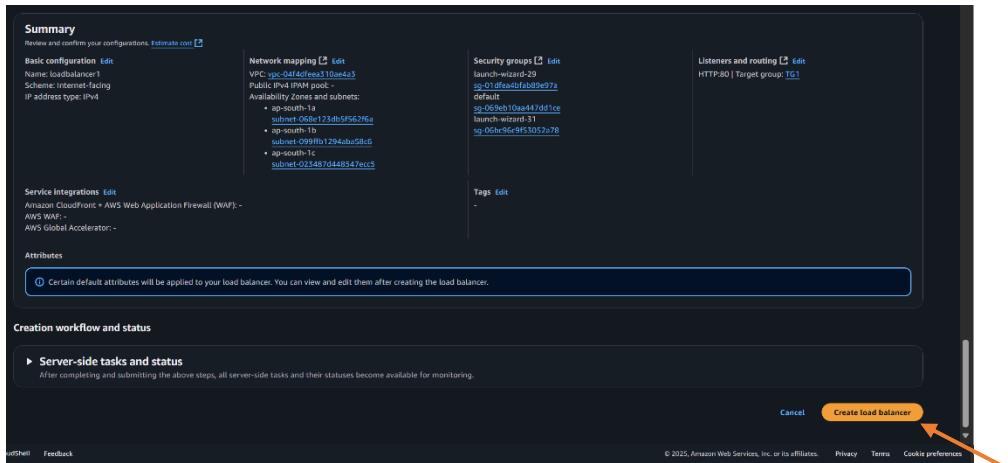
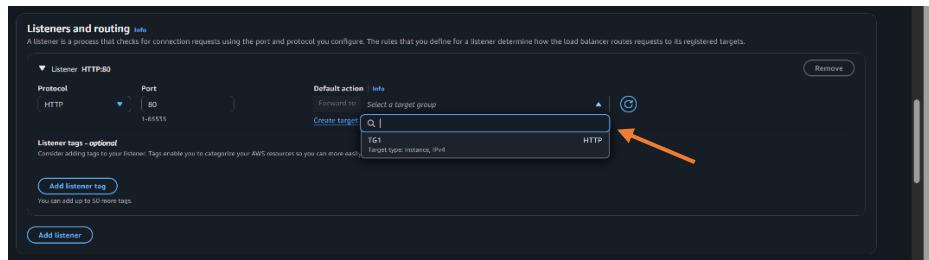
Step 4:-

- In step 2, “Register target”.
- Select the “Available instances” which need to connect with load balancer.
- Click on “Include as pending below”.
- Click on “Create target group”.
- Successfully created target group TG1.



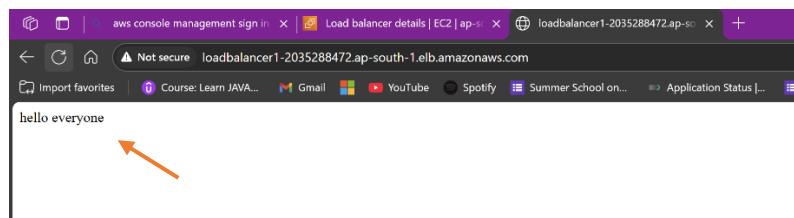
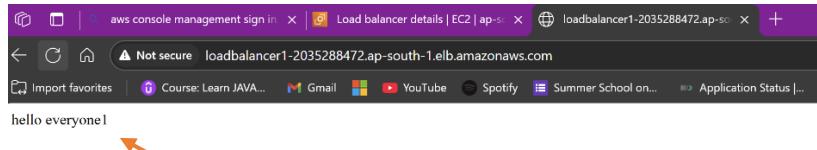
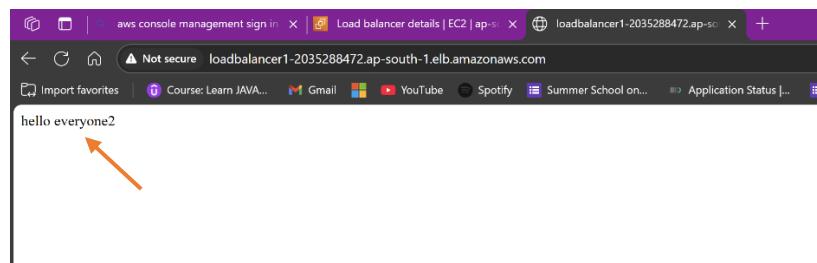
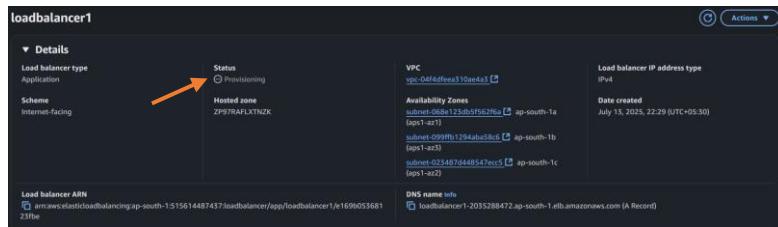
Step 5:-

- Return to the “Listeners and routing”.
- Click on “Select a target group”.
- Choose the target group. EX:- TG1.
- Click on “create load balancer”.
- Successfully created load balancer.



Step 6:-

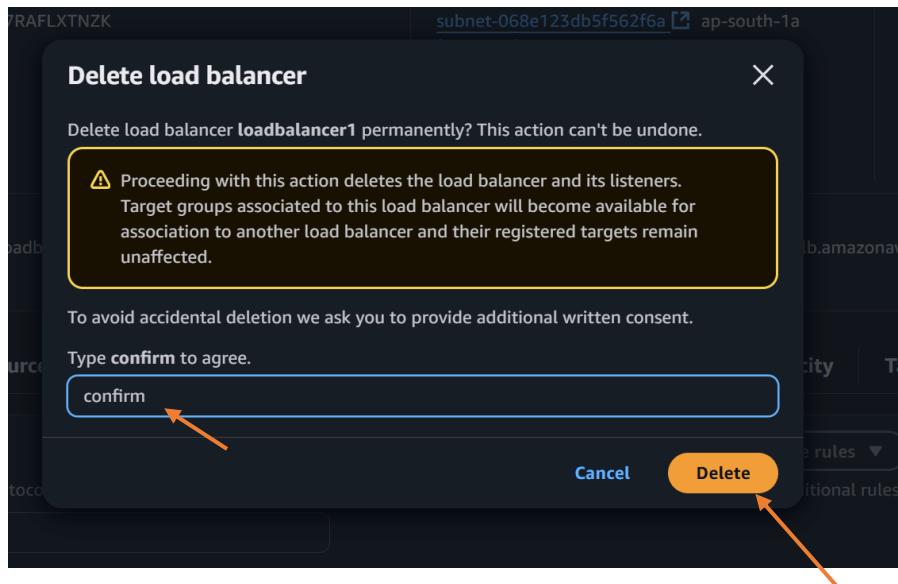
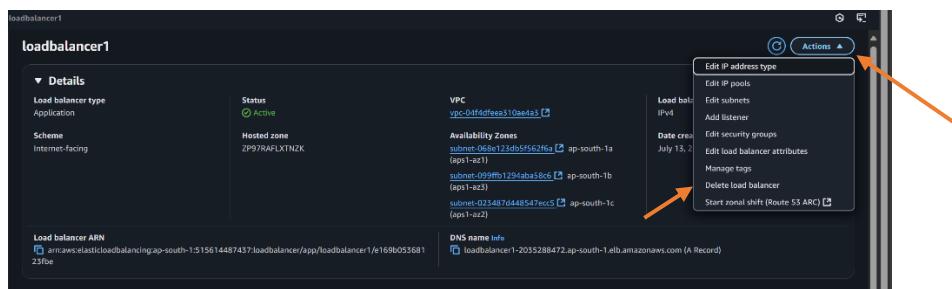
- Check the status.
- If the status is “provisioning” then wait few second.
- When the status is “Active”.
- Copy the “DNS name”.
- Paste the “DNS name” on browser and search it .
- It distributes requests across the servers, so you may see different data based on which server handles the request (load balancing behavior).



How to delete Load balancer

Step 7:-

- Goto the “load balancer”.
- Click on “Action”.
- Select “Delete load balancer”.
- Enter “confirm”.
- Click on “delete”.
- Load balancer is deleted.



How to delete Target Group

Step 8:-

- Goto the “Target group”.
- Select the target group
- Click on “Action”.
- select “Delete”.
- Click on “delete”.
- Successfully deleted the target group.

The screenshot shows the AWS Lambda console with the 'Target groups' page selected. The left sidebar has sections for Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Capacity Reservations, Images, AMIs, Elastic Block Store, Volumes, Snapshots, Lifecycle Manager, Network & Security, Security Groups, Elastic IPs, Placement Groups, Key Pairs, Network Interfaces, Load Balancing, Target Groups, Trust Stores, and Auto Scaling. The 'Target Groups' link is highlighted with an orange arrow. The main area shows a table with one item: TG1. A context menu is open over TG1, with an orange arrow pointing to the 'Delete' option. The table columns include Name, ARN, Port, Protocol, Target type, and Load balancer.

