

AWS Internship Project – Practical Cloud Computing Experience

Introduction:

As part of my summer internship, I gained hands-on experience in cloud computing using Amazon Web Services (AWS). The project focused on developing foundational skills within AWS Free Tier limits. I worked on real-time tasks such as setting up virtual servers, managing storage, securing cloud infrastructure, hosting web applications, and exploring auto-scaling. This experience helped me build a practical understanding of core AWS services and cloud architecture.

Key Learning Outcomes and Activities:

- Explored Core AWS Services
- EC2 Instance Deployment on Multiple OS
- Web Server Hosting with Apache
- Windows Server Hosting
- Creating and Using AMIs
- EBS Volume Management
- Snapshot Creation and Recovery
- Security and Access Control
- Auto Scaling Groups (ASG)
- Elastic Load Balancer (ELB)

Setting Up a Linux Server on AWS EC2

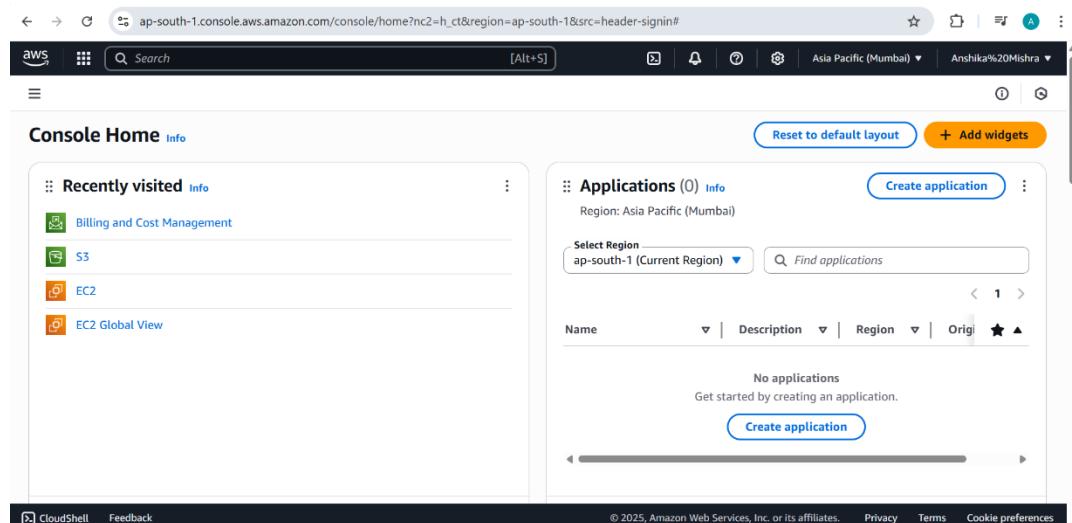
Introduction:

This guide offers a concise walkthrough for deploying a Linux-based EC2 instance on AWS. It covers the essential steps to launch, configure, and secure a virtual server, making it suitable for application hosting, website deployment, or development use in a scalable cloud environment.

Step By Step Instructions:

Step 1:

- Search “AWS Management Console” on Google.
- Click on “AWS Console Sign In | Amazon Web Services” and the home screen of AWS website will open.



Console Home [Info](#)

Recently visited [Info](#)

- [Billing and Cost Management](#)
- [S3](#)
- [EC2](#)
- [EC2 Global View](#)

Applications (0) [Info](#)

Region: Asia Pacific (Mumbai)

Select Region: ap-south-1 (Current Region) [▼](#)

[Find applications](#)

No applications

Get started by creating an application.

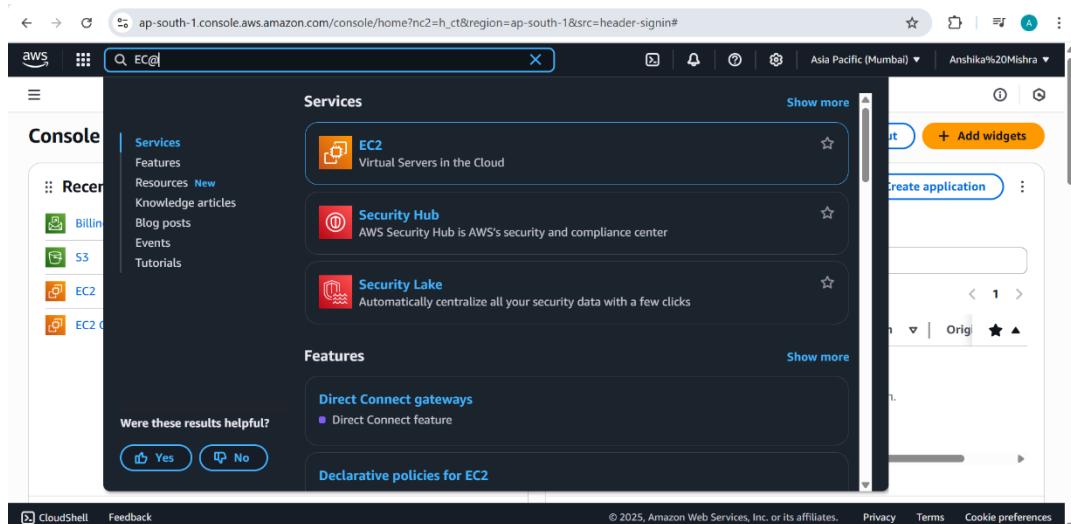
[Create application](#)

CloudShell Feedback

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Step 2:

- Search for “EC2” and open it.
- Then select any region (e.g. Mumbai).



Services

- [EC2](#) Virtual Servers in the Cloud
- [Security Hub](#) AWS Security Hub is AWS's security and compliance center
- [Security Lake](#) Automatically centralize all your security data with a few clicks

Features

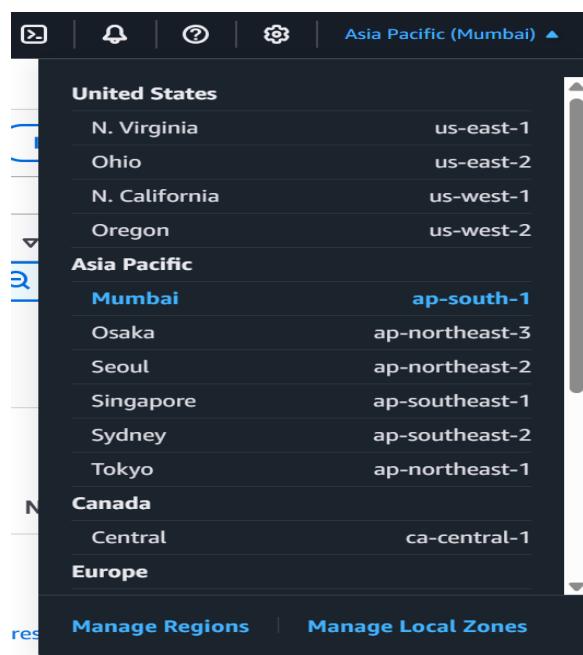
- [Direct Connect gateways](#) Direct Connect feature
- [Declarative policies for EC2](#)

Were these results helpful?

[Yes](#) [No](#)

CloudShell Feedback

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United States

- N. Virginia us-east-1
- Ohio us-east-2
- N. California us-west-1
- Oregon us-west-2

Asia Pacific

- Mumbai** ap-south-1
- Osaka ap-northeast-3
- Seoul ap-northeast-2
- Singapore ap-southeast-1
- Sydney ap-southeast-2
- Tokyo ap-northeast-1

Canada

- Central ca-central-1

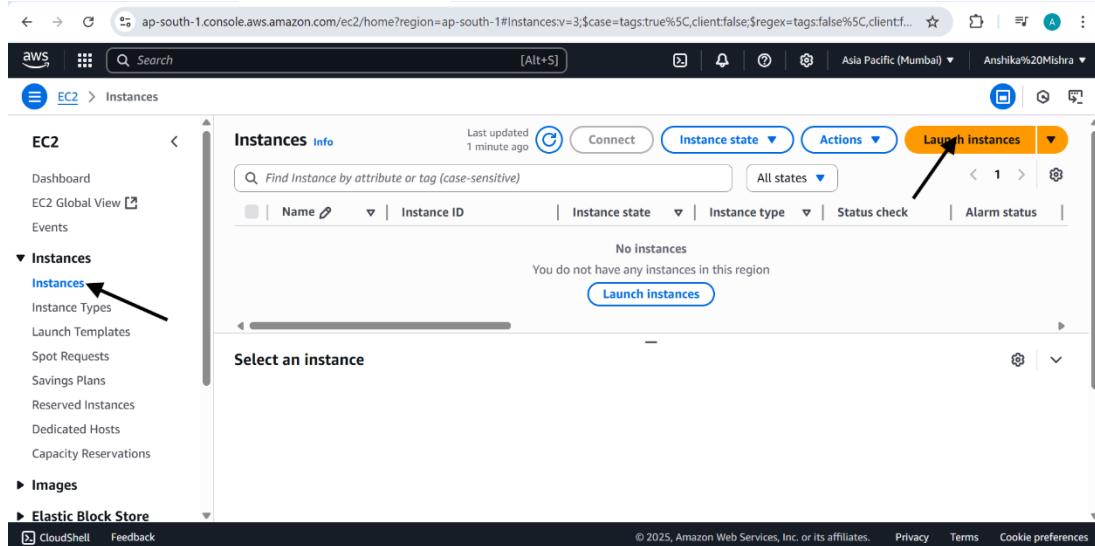
Europe

[Manage Regions](#) | [Manage Local Zones](#)

Step 3:

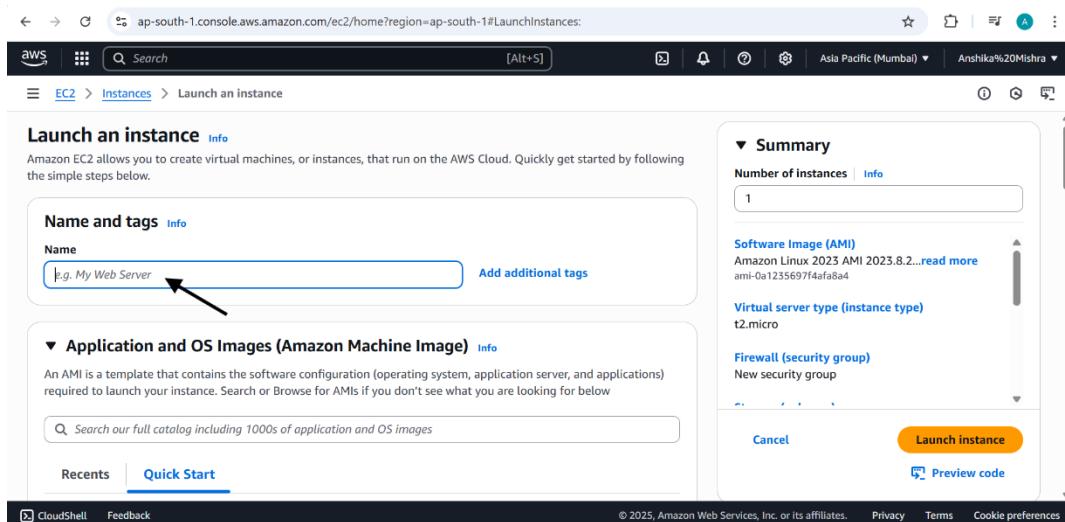
- Click on “Instances”.
- Click on “Launch instances”.

Step 4:



The screenshot shows the AWS EC2 Instances page. On the left, a sidebar menu is open with 'Instances' selected, indicated by a black arrow. At the top right, there is a prominent orange 'Launch instances' button, also indicated by an orange arrow. The main content area shows a message: 'No instances' and 'You do not have any instances in this region'. Below this, there is a 'Launch instances' button.

- Give a name to the server.



The screenshot shows the 'Launch an instance' wizard. In the 'Name and tags' section, the 'Name' field contains 'e.g. My Web Server' and has an 'Add additional tags' button. In the 'Summary' section, it shows 1 instance selected, an AMI (Amazon Linux 2023 AMI 2023.8.2...), and an instance type t2.micro. The 'Launch instance' button is highlighted with an orange arrow.

Name and tags Info

Name

MYSERVER

Add additional tags

Step 5:

- In the “Application and OS Images (AMI)”, choose “Amazon Linux”.

Application and OS Images (Amazon Machine Image) [Info](#)

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below.

Search our full catalog including 1000s of application and OS images

Recents Quick Start

Amazon Linux macOS Ubuntu Windows Red Hat SUSE Linux

Amazon Machine Image (AMI)

Amazon Linux 2023 kernel-6.1 AMI
ami-0a1235697f4afa8a4 (64-bit (x86), uefi-preferred) / ami-03e81965fd8e52909 (64-bit (Arm), uefi)
Virtualization: hvm ENA enabled: true Root device type: ebs

Free tier eligible

Summary

Number of instances [Info](#)
1

Software Image (AMI)
Amazon Linux 2023 AMI 2023.8.2... [read more](#)
ami-0a1235697f4afa8a4

Virtual server type (instance type)
t2.micro

Firewall (security group)
New security group

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

Step 6:

- Select “t2.micro (free tier eligible)”.
- Select the instance type according to the need of CPU and RAM.

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

Instance type

t2.micro
Family: t2 1 vCPU 1 GiB Memory Current generation: true
On-Demand Linux base pricing: 0.0124 USD per Hour
On-Demand Windows base pricing: 0.017 USD per Hour
On-Demand RHEL base pricing: 0.0268 USD per Hour
On-Demand Ubuntu Pro base pricing: 0.0142 USD per Hour
On-Demand SUSE base pricing: 0.0124 USD per Hour

Free tier eligible

All generations

[Compare instance types](#)

[Additional costs apply for AMIs with pre-installed software](#)

Step 7:

- In the “Key pair (login)”, either create a new key pair or use old key pairs.
- For creating a new key pair, click on “Create new key pair”.
- Enter the name of key pair (e.g. “key1”).
- Choose key pair type as “RSA”.
- Choose private key file format as “.pem” (For use with OpenSSH).
- Click on “Create key pair”.

Key pair (login) [Info](#)

You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.

Key pair name - required

Select

[Create new key pair](#)



Create key pair



Key pair name

Key pairs allow you to connect to your instance securely.

The name can include up to 255 ASCII characters. It can't include leading or trailing spaces.

Key pair type

RSA

RSA encrypted private and public key pair

ED25519

ED25519 encrypted private and public key pair

Private key file format

.pem

For use with OpenSSH

.ppk

For use with PuTTY

[Cancel](#)

[Create key pair](#)

Recent download history



key1.pem

1,678 B • Done

Step 8:

- In “Network settings”, allow “HTTPS traffic from the internet” and “HTTP traffic from the internet”.

▼ **Network settings** [Info](#)

[Edit](#)

[Network](#) | [Info](#)

vpc-0f566c1b5a58f5f39

[Subnet](#) | [Info](#)

No preference (Default subnet in any availability zone)

[Auto-assign public IP](#) | [Info](#)

Enable

Additional charges apply when outside of free tier allowance

[Firewall \(security groups\)](#) | [Info](#)

A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

Create security group

Select existing security group

We'll create a new security group called 'launch-wizard-1' with the following rules:

Allow SSH traffic from
Helps you connect to your instance

Anywhere
0.0.0.0/0

Allow HTTPS traffic from the internet
To set up an endpoint, for example when creating a web server

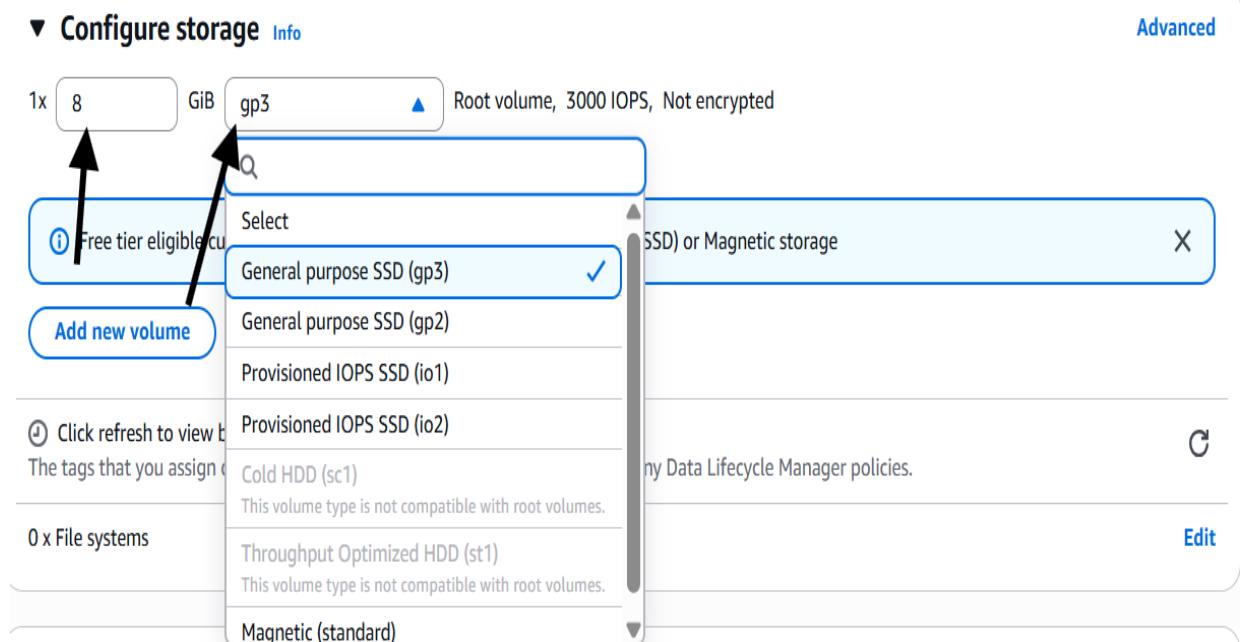
Allow HTTP traffic from the internet
To set up an endpoint, for example when creating a web server

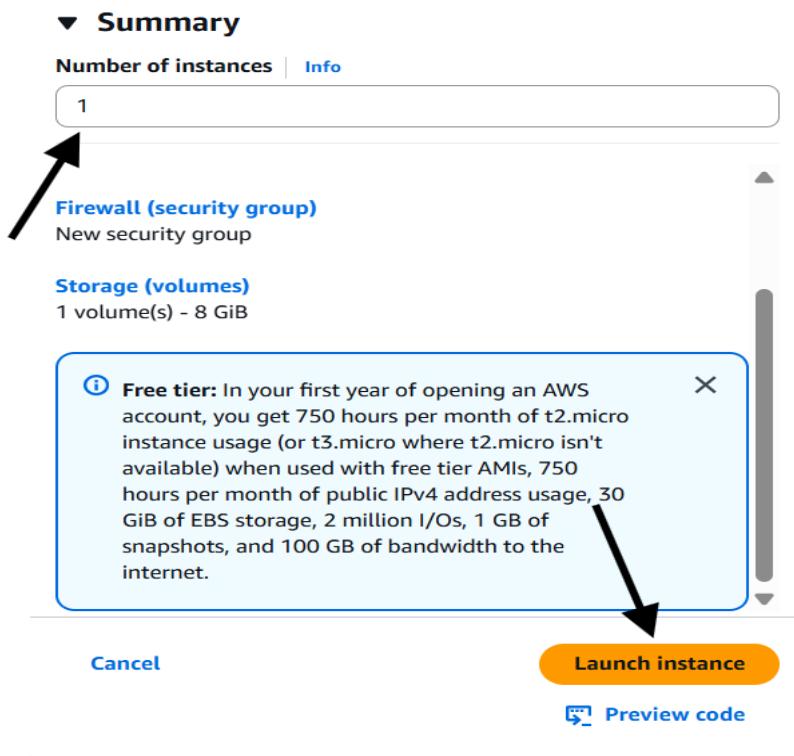
⚠ Rules with source of 0.0.0.0/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.



Step 9:

- In “Configure storage”, enter the root volume storage you want for your instance and select any type of GiB as per your preference.
- In “Summary”, enter the number of instances you want to launch (e.g. “1”),
- Then finally click on “Launch instance”.





- You can see that the instance you have created is running.

Instances (1/1)		Last updated less than a minute ago		Connect	Instance state	Actions	Launch instances	
				All states				
	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IP
<input checked="" type="checkbox"/>	MYSERVER	i-0b8067bdd827aae11	Running	t2.micro	2/2 checks passed	View alarms	ap-south-1b	ec2-65-0-

i-0b8067bdd827aae11 (MYSERVER)

[Details](#) [Status and alarms](#) [Monitoring](#) [Security](#) [Networking](#) [Storage](#) [Tags](#)

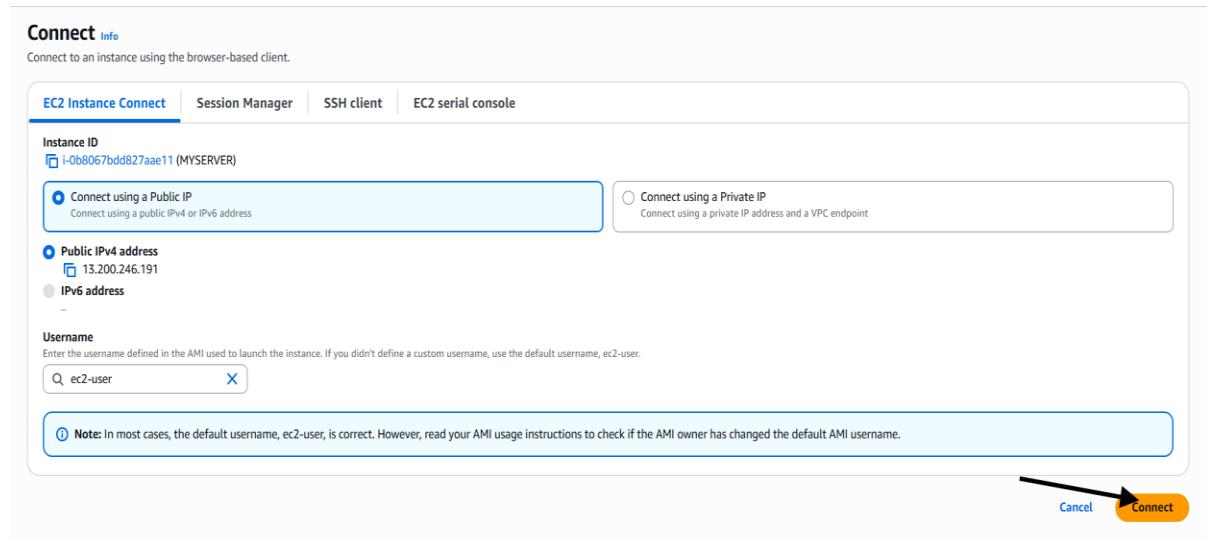
Instance summary [Info](#)

Instance ID i-0b8067bdd827aae11	Public IPv4 address 65.0.139.167 open address	Private IPv4 addresses 172.31.9.57
--	--	---

Establishing the connection:

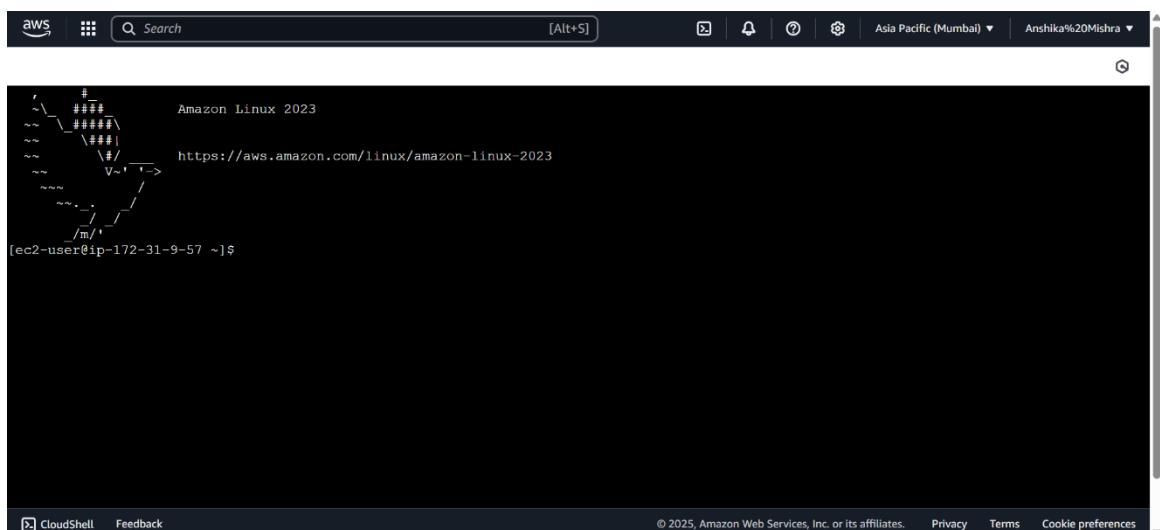
Step 1:

- Select the instance and click on “Connect”.
- In “EC2 Instance Connect”, select “Connect using a Public IP”.
- Scroll down and click on “Connect”.



Step 2:

- Connection is established with Amazon Linux.



- Convert the local user to root user by running the command “sudo su”.
- After that, for updating the server, run “yum update -y”.

- Then install httpd package by running “yum install httpd -y”.

```

~\_\_#####_ Amazon Linux 2023
~~ \###|
~~ \#/   https://aws.amazon.com/linux/amazon-linux-2023
~~ V~, .->
~~ /
~~ .-.
~~ /_/
/m/,'

[ec2-user@ip-172-31-9-57 ~]$ sudo su ←
[root@ip-172-31-9-57 ec2-user]# yum update -y ←
Amazon Linux 2023 Kernel Livepatch repository [===
Amazon Linux 2023 Kernel Livepatch repository
166 KB/s | 17 kB 00:00
Last metadata expiration check: 0:00:01 ago on Sun Jul 13 09:41:43 2025.
Dependencies resolved.
Nothing to do.
Complete!
[root@ip-172-31-9-57 ec2-user]# yum install httpd -y| ←

```

- After the installation is complete, check the status of the server by running “systemctl status httpd” and you can see that the server is “inactive (dead)”.
- Start the server by running “systemctl start httpd”.
- Now run command “cd /” to change the directory to “C” drive.
- Run “ls” to show the list of files in “C” drive.
- Run “cd var” to change the directory to “var”.
- Run “ls” to show the list of files in “var”.
- Run “cd www” to change the directory to “www”.
- Run “ls” to show the list of files in “www”.
- Run “cd html” to change the directory to “html”.

OR

- You can also run all the above commands in one line i.e. “cd /var/www/html”.

```

[root@ip-172-31-9-57 ec2-user]# systemctl status httpd ←
● httpd.service - The Apache HTTP Server
  Loaded: loaded (/usr/lib/systemd/system/httpd.service; disabled; preset: disabled)
  Active: inactive (dead)
    Docs: man:httpd.service(8)
[root@ip-172-31-9-57 ec2-user]# systemctl start httpd ←
[root@ip-172-31-9-57 ec2-user]# cd / ←
[root@ip-172-31-9-57 /]# ls ←
bin boot dev etc home lib lib64 local media mnt opt proc root run sbin srv sys tmp usr var
[root@ip-172-31-9-57 /]# cd var ←
[root@ip-172-31-9-57 var]# ls ←
account adm cache db empty ftp games kerberos lib local lock log mail nis opt preserve run spool tmp www yp
[root@ip-172-31-9-57 var]# cd www ←
[root@ip-172-31-9-57 www]# ls ←
cgi-bin html
[root@ip-172-31-9-57 www]# cd html ←
[root@ip-172-31-9-57 html]# ←

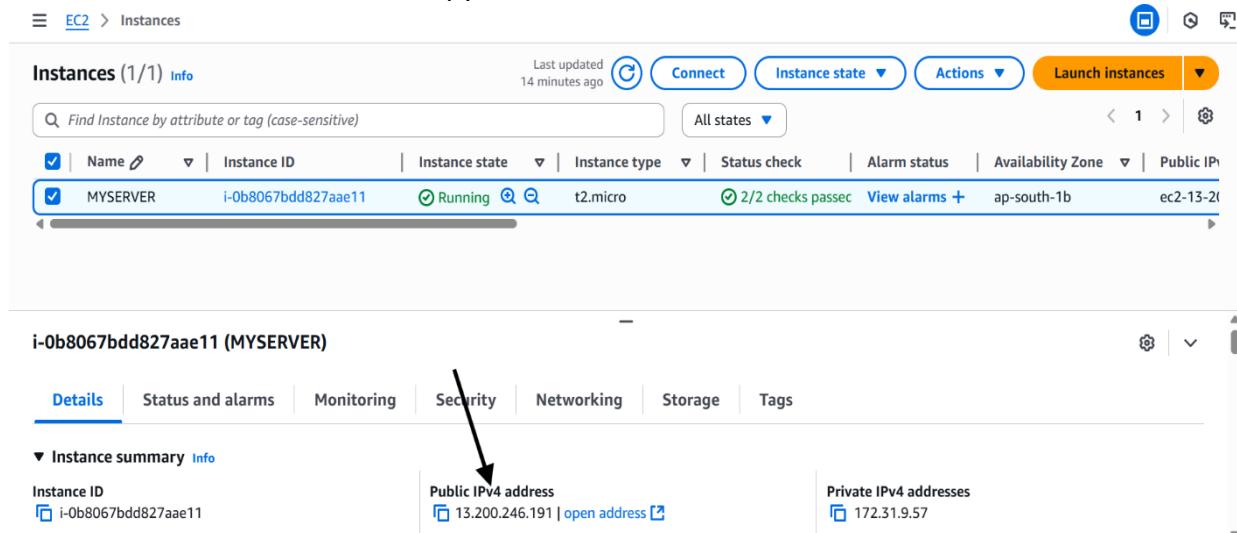
```

- Run command “cat > index.html”.
- Now write anything under this and it will show on the browser (e.g. “THIS IS AMAZON LINUX SERVER”).
- Press “Enter” key and then select “Ctrl+D” to save changes.

```
[root@ip-172-31-9-57 www]# cd html
[root@ip-172-31-9-57 html]# cat > index.html
THIS IS AMAZON LINUX SERVER
[root@ip-172-31-9-57 html]#
```

Step 3:

- Go to “Instances” on the previous tab.
- Select the instance and copy the “Public IPv4 address” in “Details” section below.



Instances (1/1) [Info](#)

Last updated 14 minutes ago [C](#) [Connect](#) [Instance state](#) [Actions](#) [Launch instances](#)

[Find Instance by attribute or tag \(case-sensitive\)](#) [All states](#)

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IP
MYSERVER	i-0b8067bdd827aae11	Running Q Q	t2.micro	2/2 checks passed View alarms +		ap-south-1b	ec2-13-2

i-0b8067bdd827aae11 (MYSERVER)

[Details](#) [Status and alarms](#) [Monitoring](#) [Security](#) [Networking](#) [Storage](#) [Tags](#)

[Instance summary](#) [Info](#)

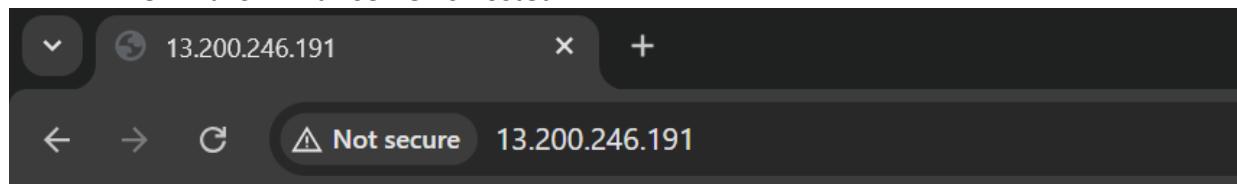
Instance ID [i-0b8067bdd827aae11](#)

Public IPv4 address [13.200.246.191](#) [open address](#)

Private IPv4 addresses [172.31.9.57](#)

Step 4:

- Paste the IP address on new tab and search.
- The Amazon Linux server is hosted.



Step 5:

- Now go to “Instances” and select the server.
- Click on “Instance state”.
- Now terminate the instance by clicking on “Terminate (delete) instance”.
- Click on “Terminate (delete)”.

The screenshot shows the AWS EC2 Instances page. A context menu is open over an instance named 'MYSERVER'. The menu options are: Stop instance, Start instance, Reboot instance, Hibernate instance, and Terminate (delete) instance. The 'Terminate (delete) instance' option is highlighted with a red box and an arrow pointing to it from the main text area below.

Instances (1/1) [Info](#) Last updated 17 minutes ago [Connect](#) [Instance state](#) [Actions](#) [Launch instances](#)

Find Instance by attribute or tag (case-sensitive)

Name	Instance ID	Instance state	Instance type	Status
MYSERVER	i-0b8067bdd827aae11	Running	t2.micro	2/2

Availability Zone [ap-south-1b](#) Public IP [ec2-13-200-246-191.ap-south-1.amazonaws.com](#)

i-0b8067bdd827aae11 (MYSERVER)

Details Status and alarms Monitoring Security Networking Storage Tags

Terminate (delete) instance

⚠ 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-0b8067bdd827aae11 (MYSERVER)

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 \(delete\)](#)

Public IPv4 address

[13.200.246.191](#) | [open address](#)

Private IPv4 addresses

[172.31.9.57](#)

- Your server is now terminated.

Find Instance by attribute or tag (case-sensitive)

All states

Name

Instance ID

Instance state

Instance type

Status check

Alarm status

Availability Zone

MYSERVER

i-0b8067bdd827aae11

Terminated

[?](#)

[?](#)

t2.micro

-

[View alarms](#) [+](#) ap-south-1b

1

Setting Up a Windows Server on AWS EC2

Introduction:

Amazon EC2 is a cloud service from AWS that provides virtual machines—called instances—over the internet. By selecting a Microsoft Windows operating system, users can run full-featured Windows servers remotely, just like working on a local computer, but with the flexibility and scalability of the cloud.

EC2 lets you:

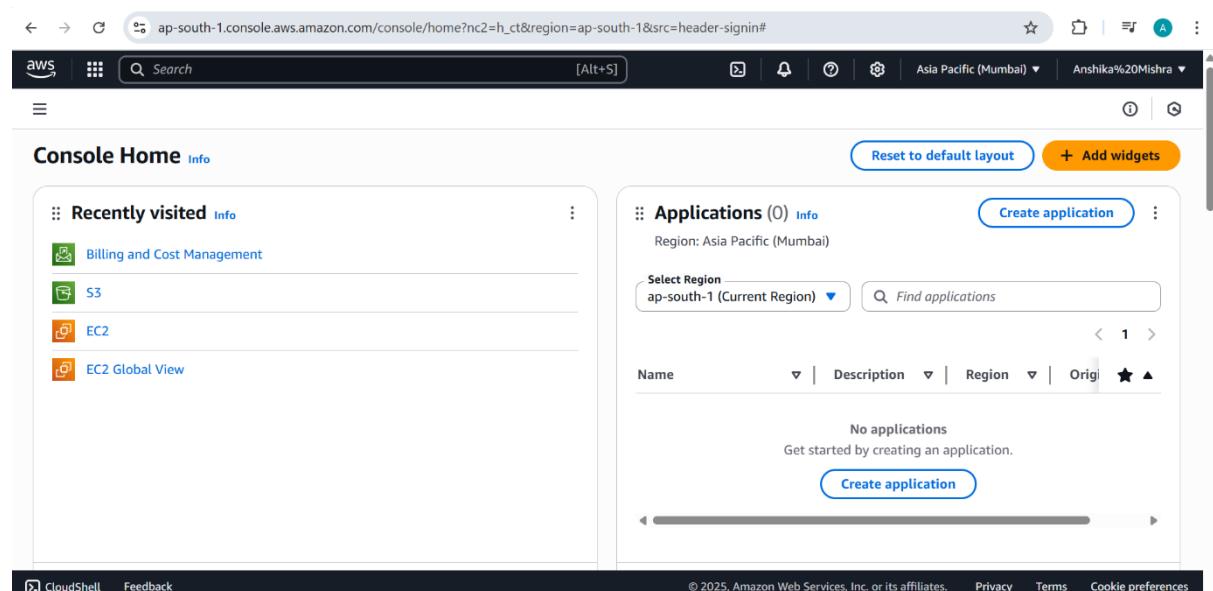
1. Pick different types of virtual machines based on your speed needs and budget.
2. Use RDP (Remote Desktop Protocol) to open your Windows EC2 like it's on your own desktop.
3. Easily host websites, run apps, or do software testing and development.

It's secure, scalable, and cost-effective, which means you can increase or decrease the power as needed and only pay for what you use.

Step by Step Instructions:

Step 1:

1. Search “AWS Management Console” on Google.
2. Click on “AWS Console Sign In | Amazon Web Services” and the home screen of AWS website will open.



Step 2:

1. Search for “EC2” and open it.
2. Then select any region (e.g. Mumbai).

The screenshot shows the AWS Console search results for 'EC2'. The search bar at the top contains 'EC2'. The results are categorized into 'Services' and 'Features'. Under 'Services', there are three items: 'EC2' (Virtual Servers in the Cloud), 'Security Hub' (AWS Security Hub is AWS's security and compliance center), and 'Security Lake' (Automatically centralize all your security data with a few clicks). Under 'Features', there are two items: 'Direct Connect gateways' (Direct Connect feature) and 'Declarative policies for EC2'. A sidebar on the left shows recent activity, including 'Billings', 'S3', 'EC2', and 'EC2 Configuration'. A feedback section at the bottom asks 'Were these results helpful?' with 'Yes' and 'No' buttons. The bottom of the screen shows standard AWS footer links: CloudShell, Feedback, © 2025, Amazon Web Services, Inc. or its affiliates., Privacy, Terms, and Cookie preferences.

The screenshot shows the 'Regions and Local Zones' selection menu. The menu is organized by region: United States, Asia Pacific, Canada, and Europe. Under 'United States', the regions are: N. Virginia (us-east-1), Ohio (us-east-2), N. California (us-west-1), and Oregon (us-west-2). Under 'Asia Pacific', the regions are: Mumbai (ap-south-1), Osaka (ap-northeast-3), Seoul (ap-northeast-2), Singapore (ap-southeast-1), Sydney (ap-southeast-2), and Tokyo (ap-northeast-1). Under 'Canada', the region is: Central (ca-central-1). Under 'Europe', the region is: (empty). At the bottom of the menu are two buttons: 'Manage Regions' and 'Manage Local Zones'.

Step 3:

1. Click on "Instances".
2. Click on "Launch instances".

EC2 Instances

Instances Info

Last updated 1 minute ago

Find Instance by attribute or tag (case-sensitive)

Actions ▾

Launch instances

No instances

You do not have any instances in this region

Launch instances

Select an instance

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Step 4:

1. Give a name to the server.
2. Write “MYSERVER”.

Launch an instance

Amazon EC2 allows you to create virtual machines, or instances, that run on the AWS Cloud. Quickly get started by following the simple steps below.

Name and tags

Name

e.g. My Web Server

Add additional tags

Application and OS Images (Amazon Machine Image)

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below

Search our full catalog including 1000s of application and OS images

Recents Quick Start

Summary

Number of instances

1

Software Image (AMI)

Amazon Linux 2023 AMI 2023.8.2...read more

Virtual server type (instance type)

t2.micro

Firewall (security group)

New security group

Cancel

Launch instance

Preview code

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Step 5:

1. In the “Application and OS Images (AMI)”, choose “Windows”.

▼ Application and OS Images (Amazon Machine Image) [Info](#)

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below

Search our full catalog including 1000s of application and OS images

Recents **Quick Start**

Amazon Linux macOS Ubuntu Windows Red Hat SUSE Linux

Amazon Machine Image (AMI)

Microsoft Windows Server 2025 Base
ami-036940a1a7418c22f (64-bit (x86))

Free tier eligible

 [Browse more AMIs](#)
Including AMIs from AWS, Marketplace and the Community

Step 6:

2. Select “t3.small”.
3. Select the instance type according to the need of CPU and RAM.

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

Instance type

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

All generations

[Compare instance types](#)

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

to the selected key pair before

Key pair name - required

Step 7:

1. In the “Key pair (login)”, either create a new key pair or use old key pairs.
2. Here, we will use an old key pair named “key1” as the region we have selected is Mumbai.
3. Every region has its own key pairs as we cannot use a single key pair in every region.
4. Every region can have as many key pairs as we want but they can be used in that particular region only.

▼ Key pair (login) [Info](#)

You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.

Key pair name - required

key1

[Create new key pair](#)

For Windows instances, you use a key pair to decrypt the administrator password. You then use the decrypted password to connect to your instance.

Step 8:

1. In “Network settings”, allow “HTTPS traffic from the internet” and “HTTP traffic from the internet”.

▼ Network settings [Info](#)

[Edit](#)

Network [Info](#)

vpc-0f566c1b5a58f5f39

Subnet [Info](#)

No preference (Default subnet in any availability zone)

Auto-assign public IP [Info](#)

Enable

Additional charges apply when outside of free tier allowance

Firewall (security groups) [Info](#)

A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

Create security group

Select existing security group

We'll create a new security group called 'launch-wizard-1' with the following rules:

Allow SSH traffic from

Helps you connect to your instance

Anywhere

0.0.0.0/0

Allow HTTPS traffic from the internet

To set up an endpoint, for example when creating a web server

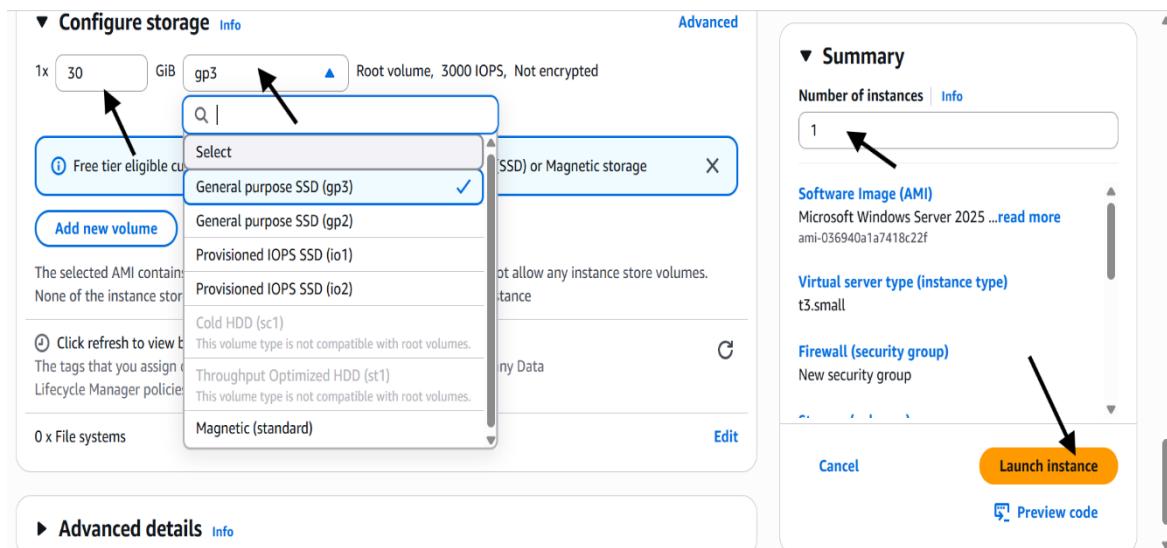
Allow HTTP traffic from the internet

To set up an endpoint, for example when creating a web server

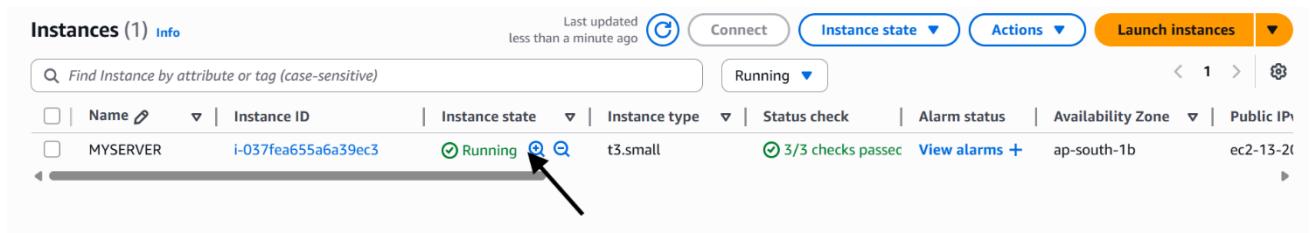
⚠ Rules with source of 0.0.0.0/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.

Step 9:

2. In “Configure storage”, enter the root volume storage you want for your instance and select any type of GiB as per your preference.
3. In “Summary”, enter the number of instances you want to launch (e.g. “1”).
4. Then finally click on “Launch instance”.



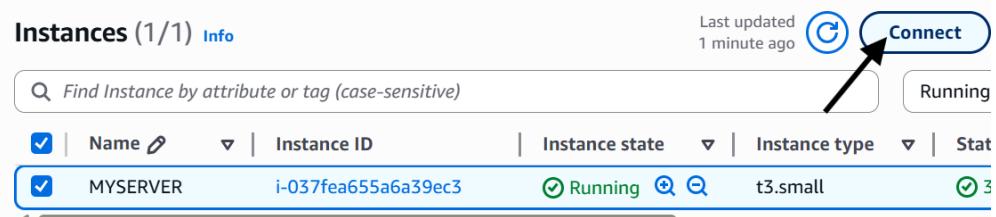
1. You can see that the instance you have created is running.



Establishing the connection:

Step 1:

2. Select the instance and click on "Connect".



Step 2:

3. Go to "RDP client" and click on "Download remote desktop file".
4. The RDP file of the instance will be downloaded.
5. In "Connection Type", select "Connect using RDP client".

Session Manager **RDP client** EC2 serial console

Record RDP connections
You can now record RDP connections using AWS Systems Manager just-in-time node access. [Learn more](#) 

Try for free  X

Instance ID  i-037fea655a6a39ec3 (MYSERVER)

Connection Type

Connect using RDP client
Download a file to use with your RDP client and retrieve your password.

Connect using Fleet Manager
To connect to the instance using Fleet Manager Remote Desktop, the SSM Agent must be installed and running on the instance. For more information, see [Working with SSM Agent](#) 

You can connect to your Windows instance using a remote desktop client of your choice, and by downloading and running the RDP shortcut file below:

[!\[\]\(846897bbc6d5ab869d97875203e48964_img.jpg\) Download remote desktop file](#)

When prompted, connect to your instance using the following username and password:



MYSERVER.rdp
107 B • Done

- Click on “Get password”.

Password **Get password**

- Click on “Upload private key file”.
- Choose the same key file of .pem extension which is used during the launch of instance.
- Click on “open”.

Use your private key to retrieve and decrypt the initial Windows administrator password for this instance.

Instance ID
 i-08bd3c583c6c3a3b4 (myserver)

Key pair associated with this instance
 key mumbai

Private key
 Either upload your private key file or copy and paste its contents into the field below.

Upload private key file

Private key contents - optional

Private key contents

Name	Date modified
key1.pem	13-07-2025 14:41
a.pem	10-07-2025 15:40
s.pem	10-07-2025 14:21
h (1).pem	09-07-2025 14:24
windows	30-11-2023 23:11

- Click on “Decrypt password”.
- Now copy the password that is generated.

File: key1.pem

PEM File

Open Cancel

Decrypt password

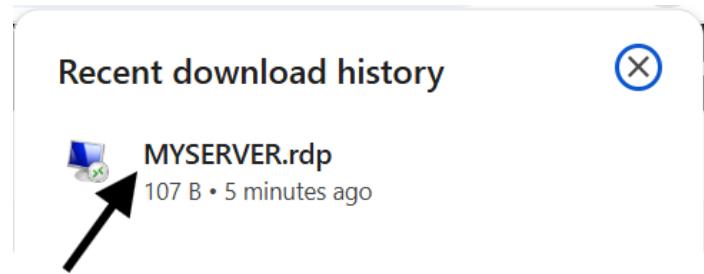
Public DNS: ec2-13-204-47-147.ap-south-1.compute.amazonaws.com

>Password copied

Cyp4rKjIWsX.rj&CNI9SAAY3HfqtwGQa

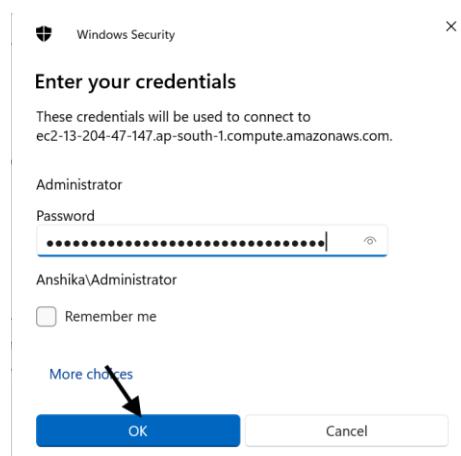
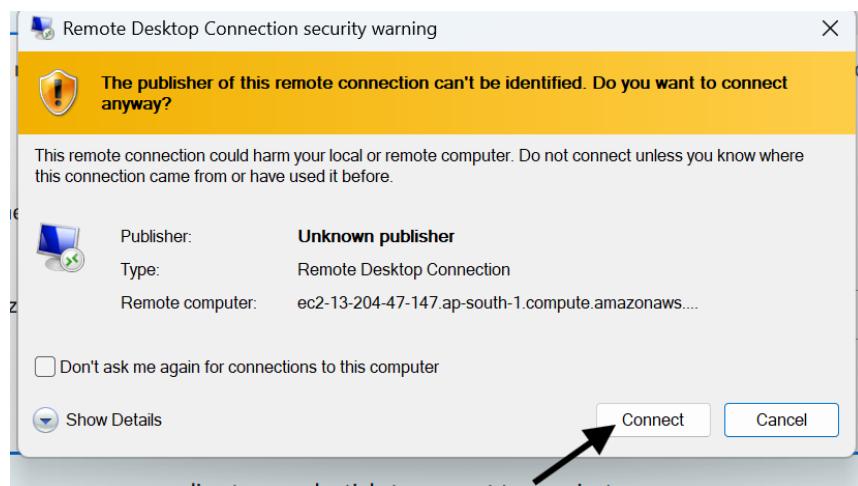
If you've joined your instance to a directory, you can use your directory credentials to con

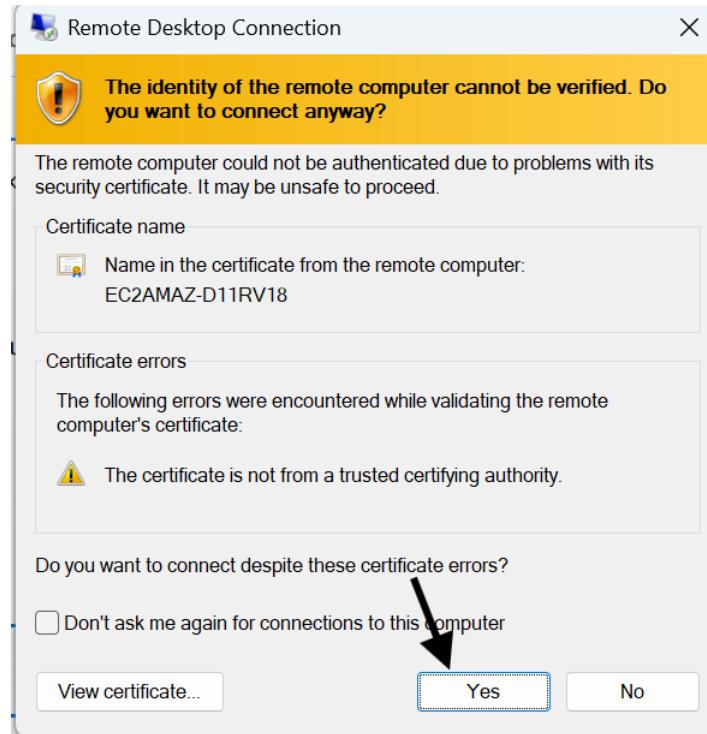
- Now open the RDP file that you have downloaded earlier.



Step 3:

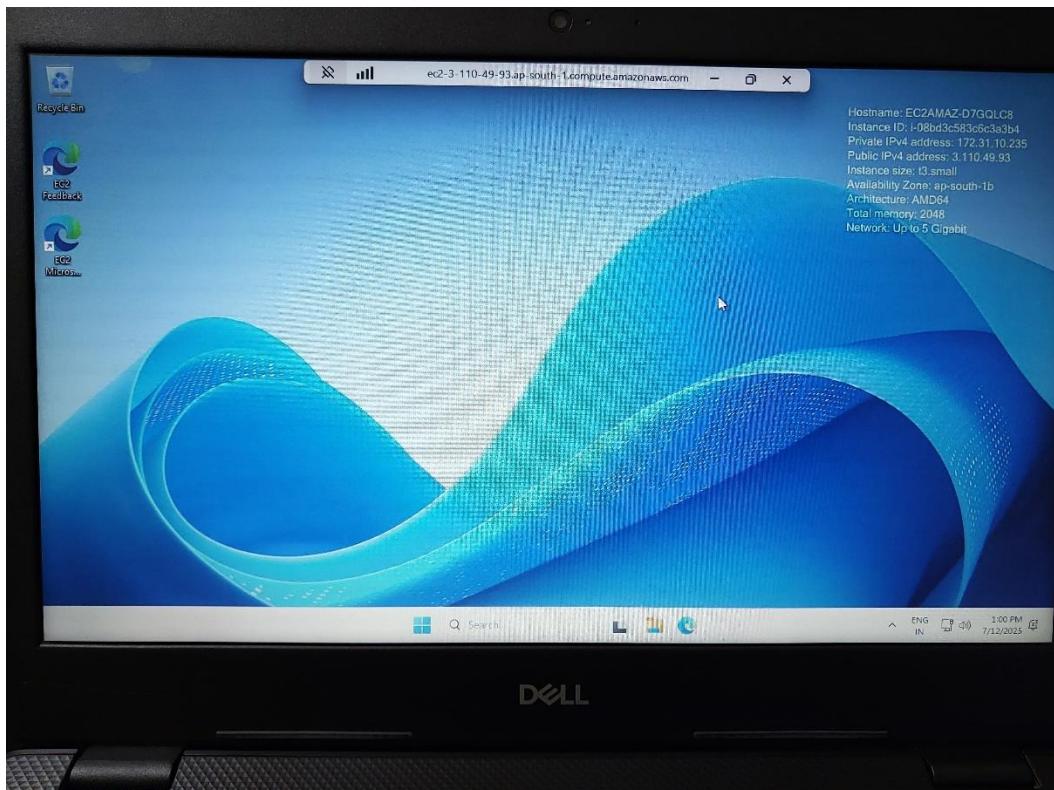
2. Click on "Connect".
3. Enter the copied password and click on "OK".
4. After that click on "Yes".
5. Wait for few seconds.



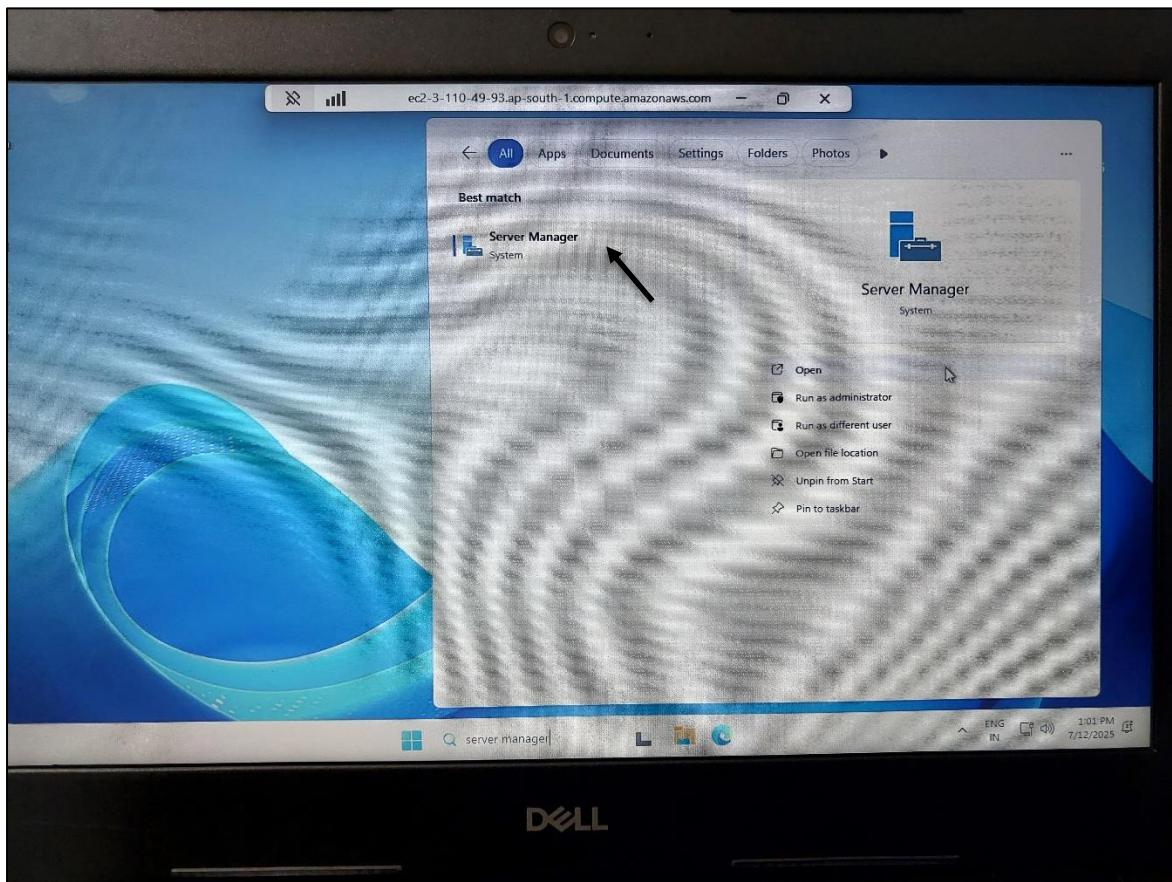


Step 4:

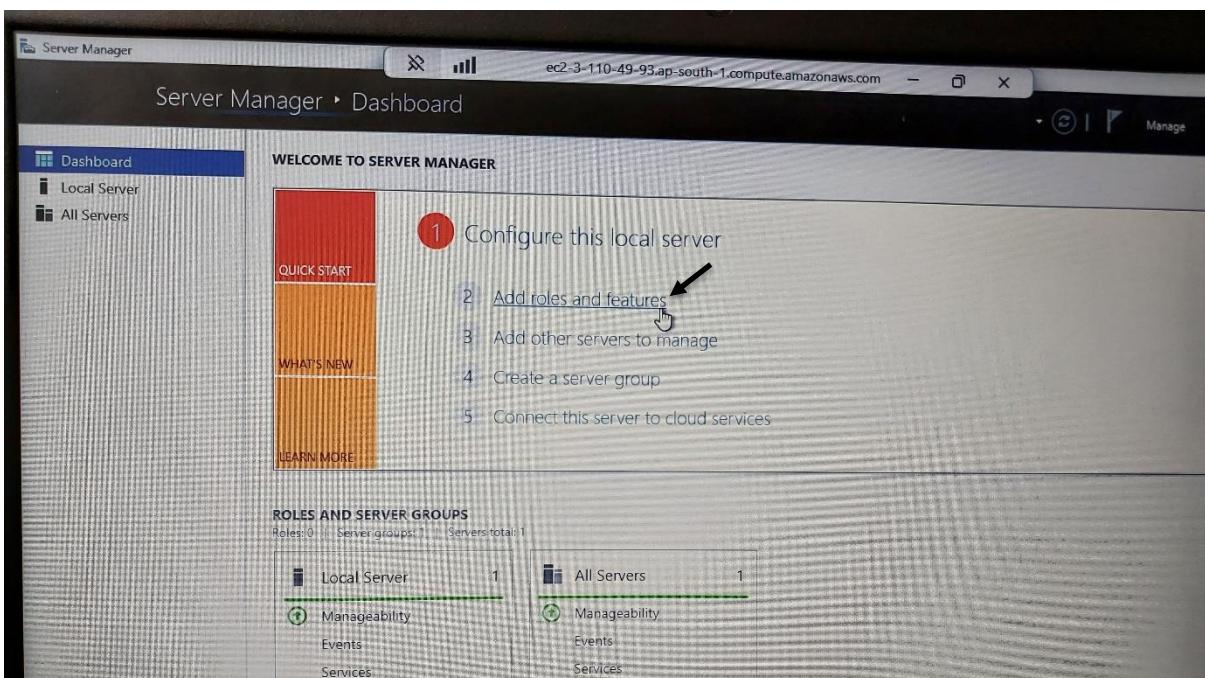
1. A virtual Windows server will open.

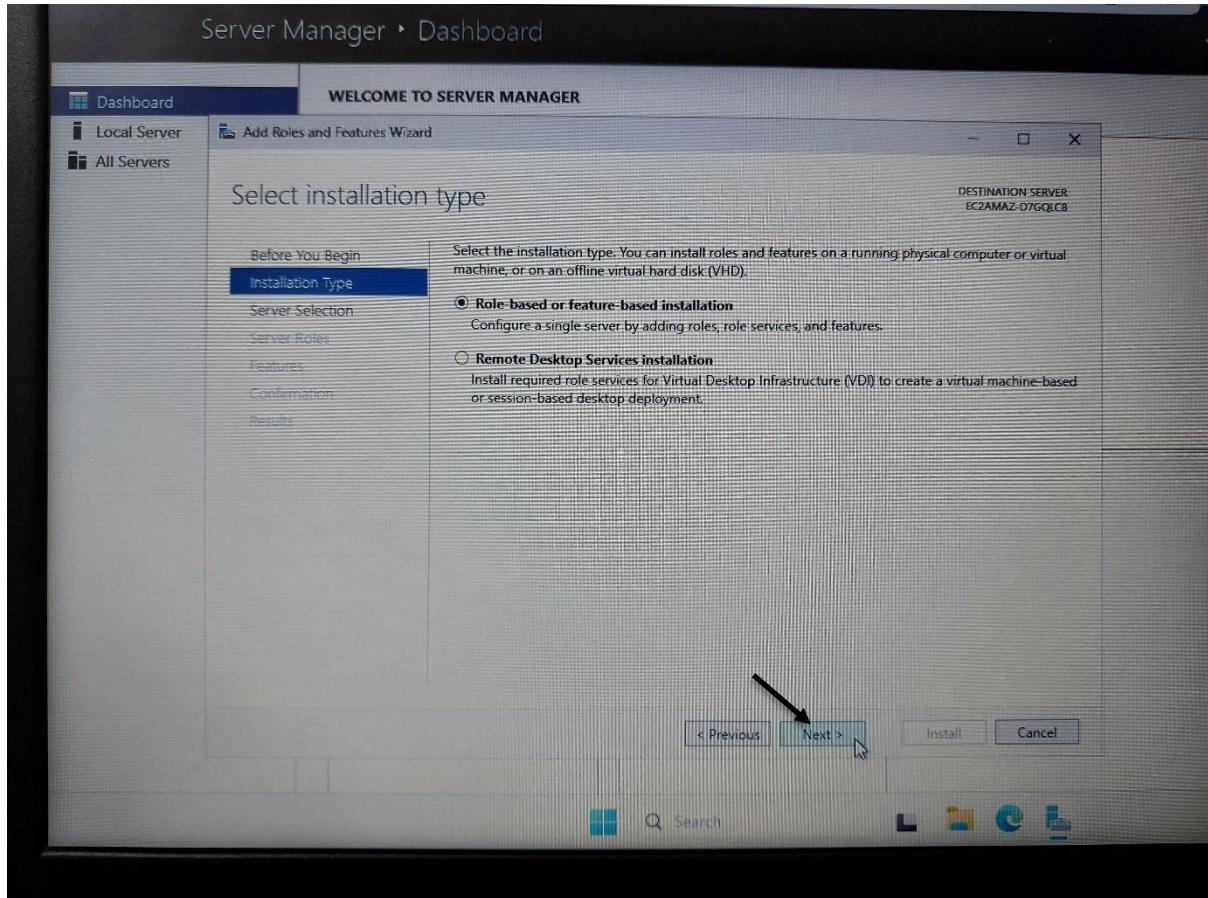
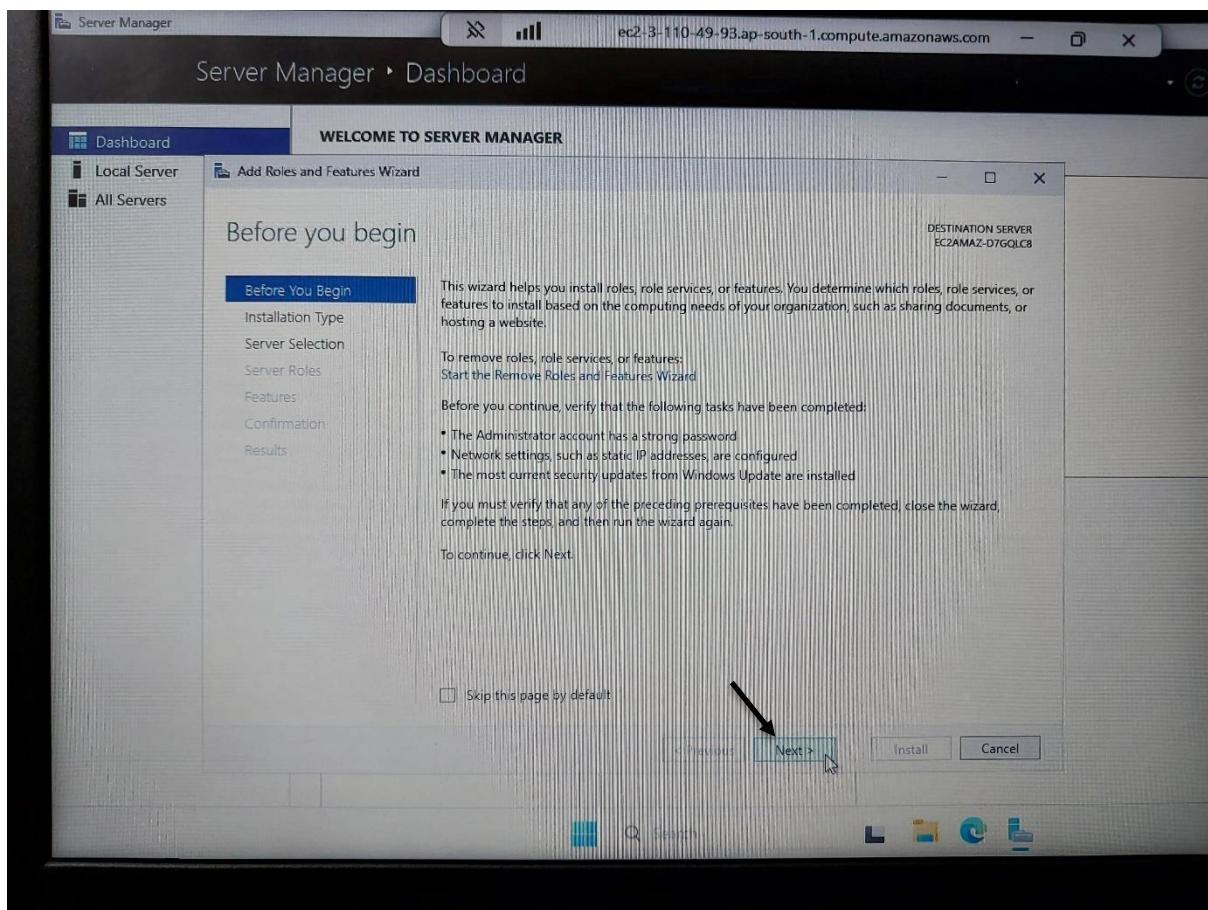


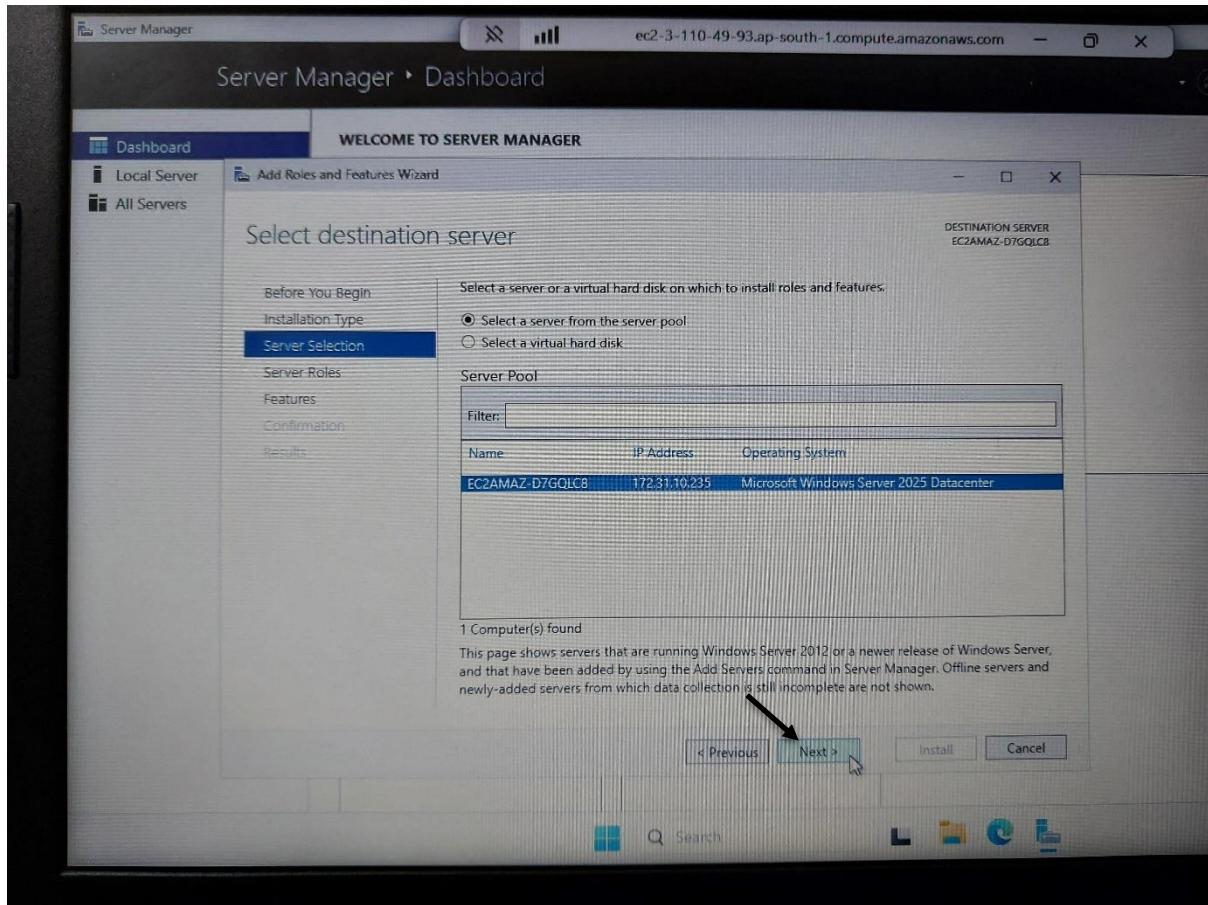
2. Click on "Start" button.
3. Search "Server Manager" and open it.



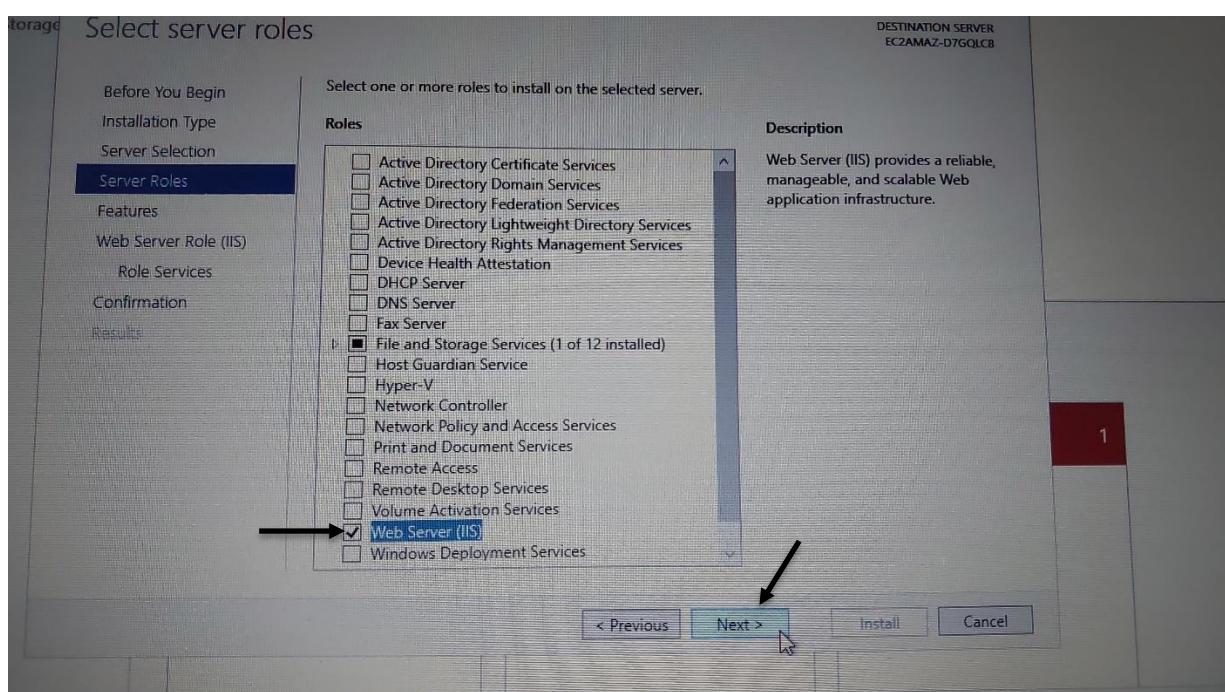
1. Wait for few seconds.
2. Now click on “Add roles and features”.
3. In “Before You Begin”, click on “Next”.
4. In “Installation Type”, click on “Next”.
5. In “Server Selection”, click on “Next”.

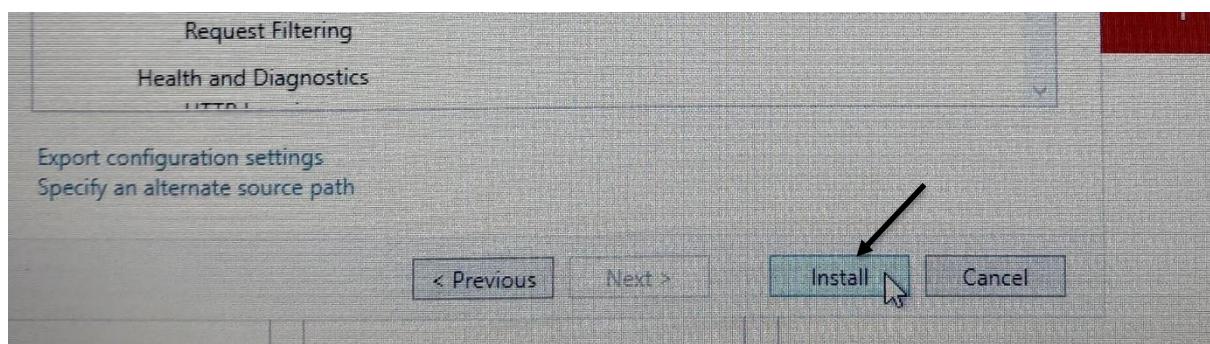
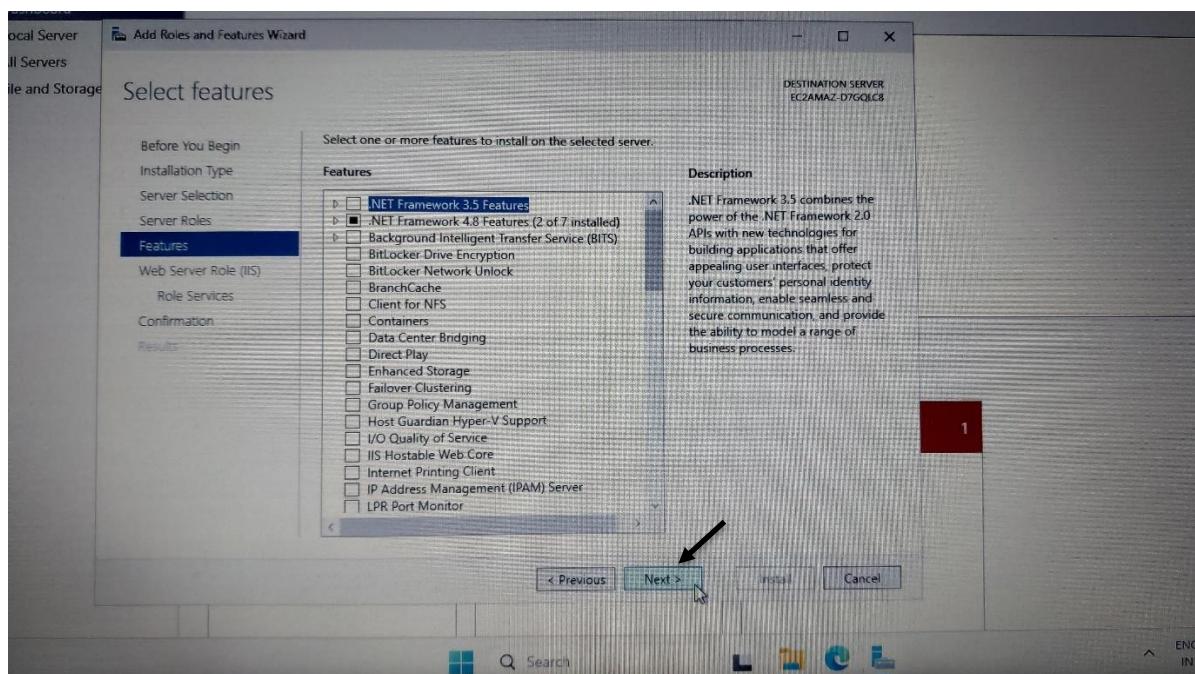
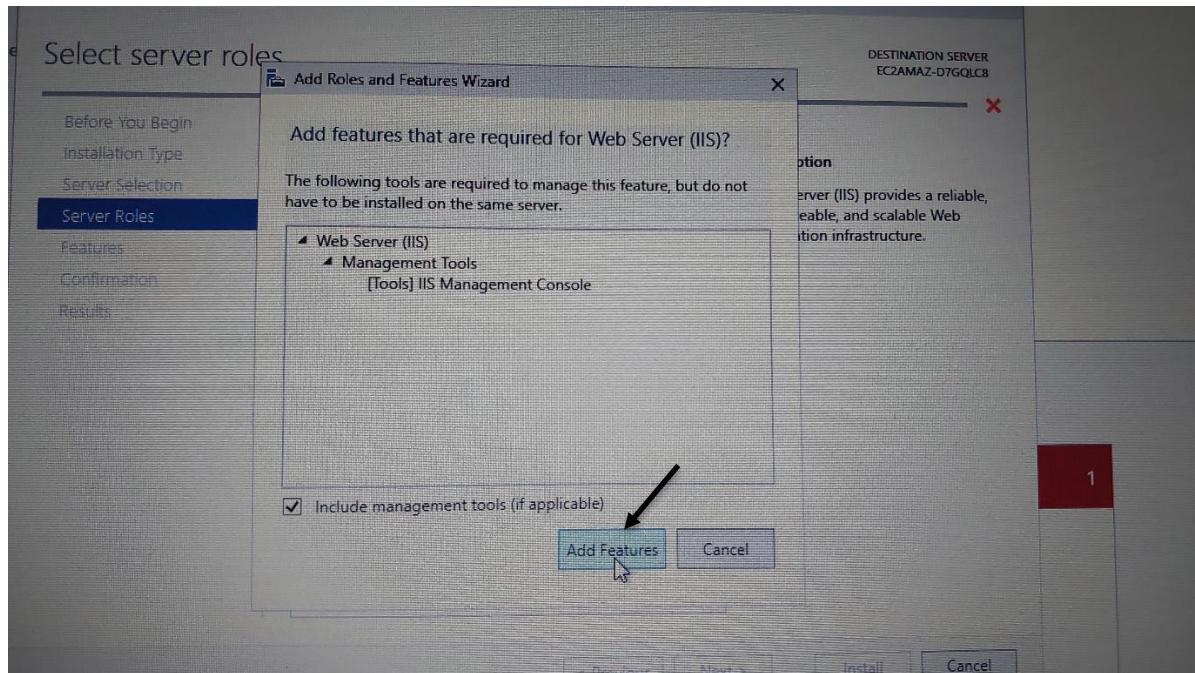




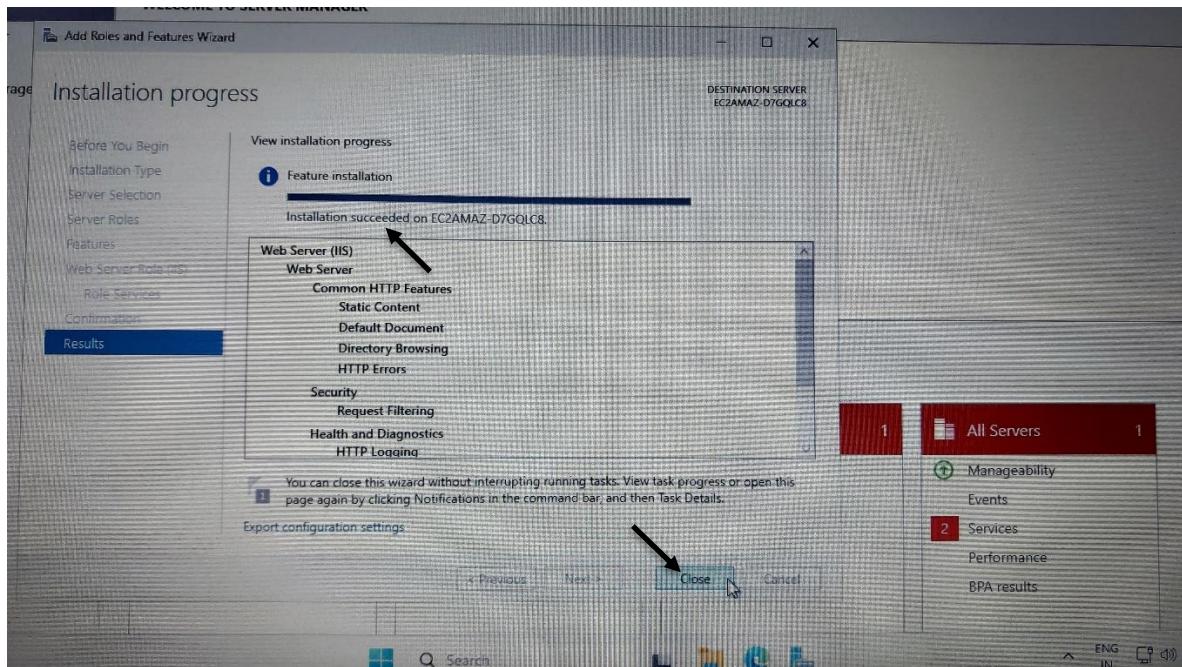


1. In “Server Roles”, select “Web Server(IIS)” and click on “Next”.
2. After that click on “Add Features” and then click on “Next” till the last.
3. Finally, click on “Install”.

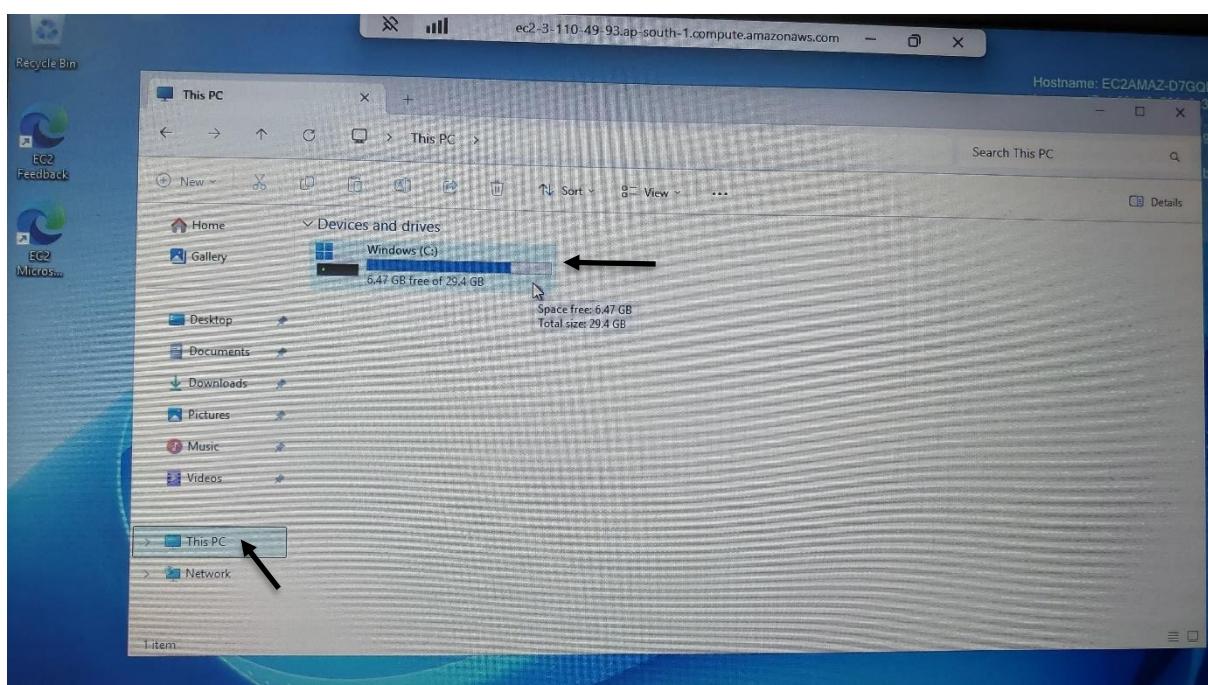




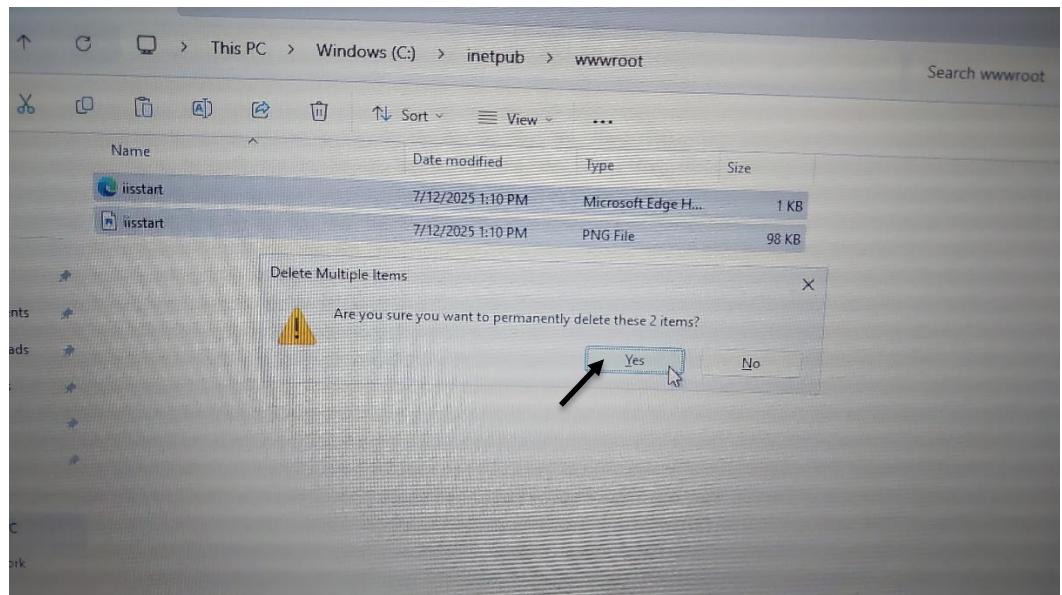
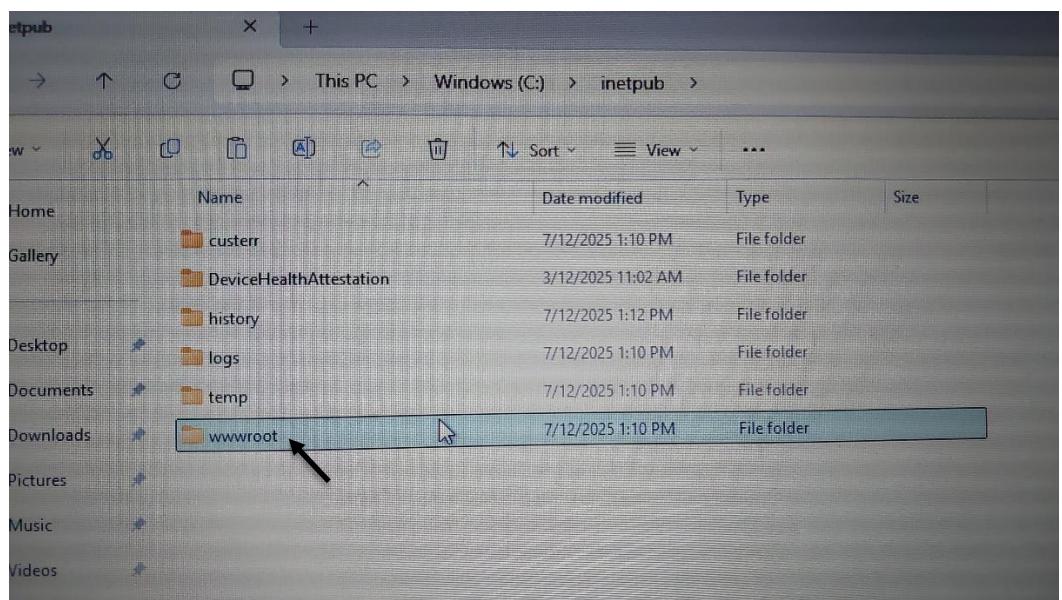
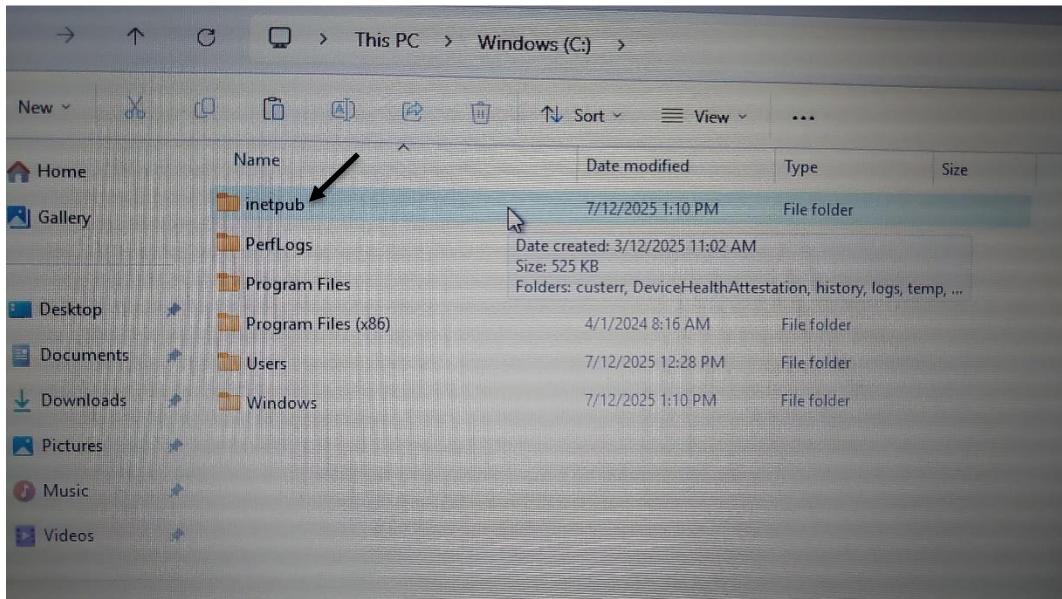
1. Now the web server is getting installed.



2. After the installation is completed, close the window.
3. Go back to the home screen of virtual server.
4. Open "File Explorer".
5. Open "This PC" and go to "C" drive.

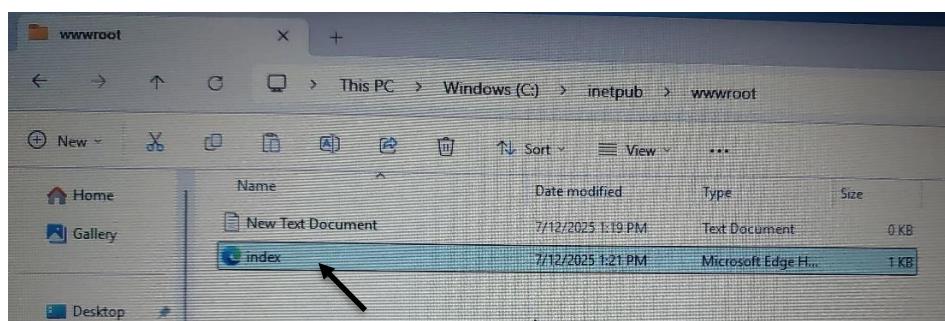
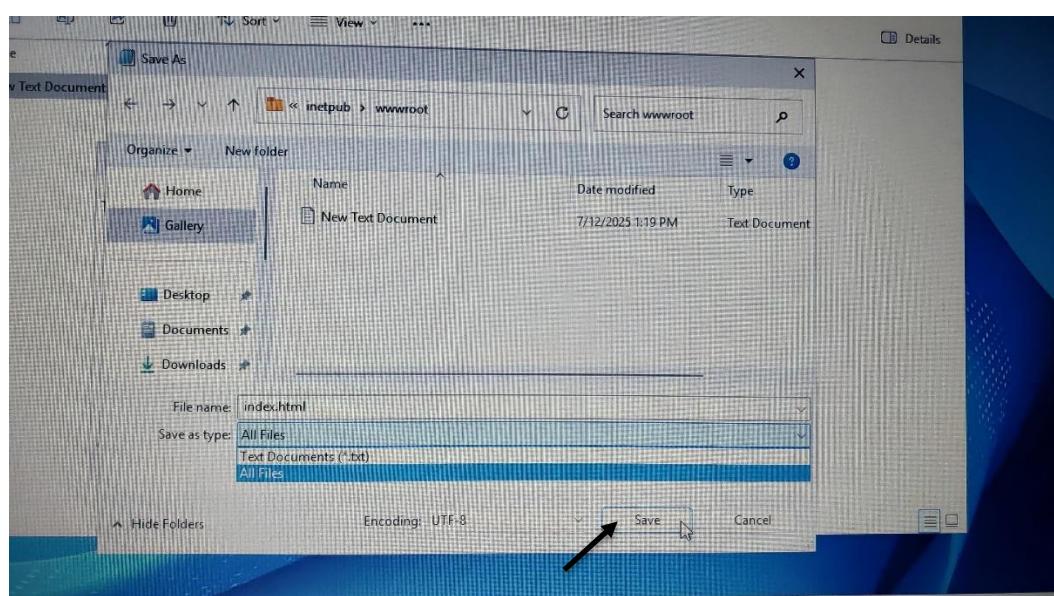
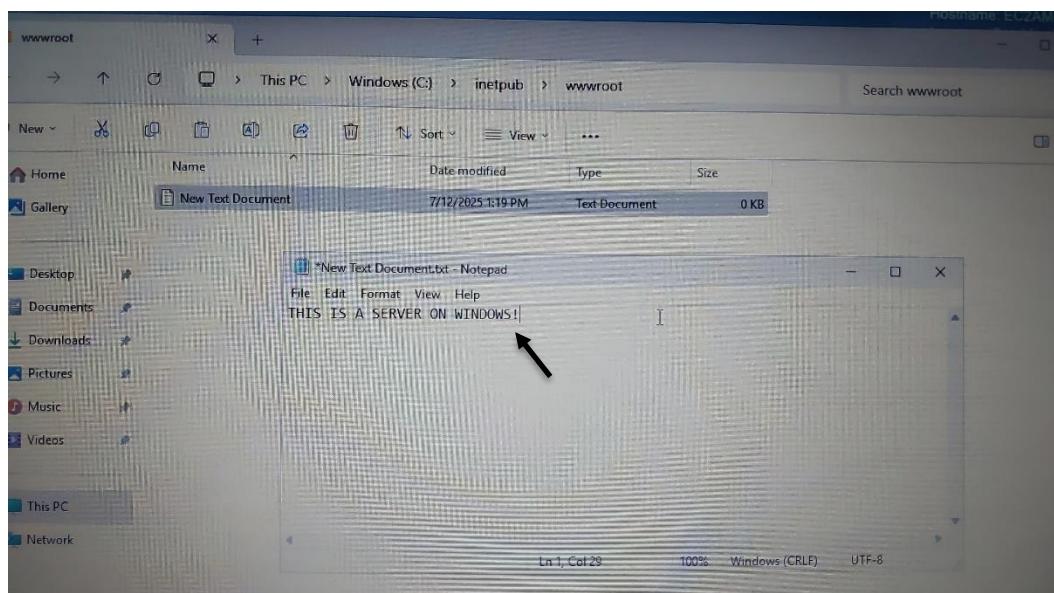


1. Click on "inetpub", then go to "wwwroot".
2. Select all the files that are by default present in the folder.
3. "Ctrl + A" and then "Shift + Delete".
4. All the files will be permanently deleted.



Step 5:

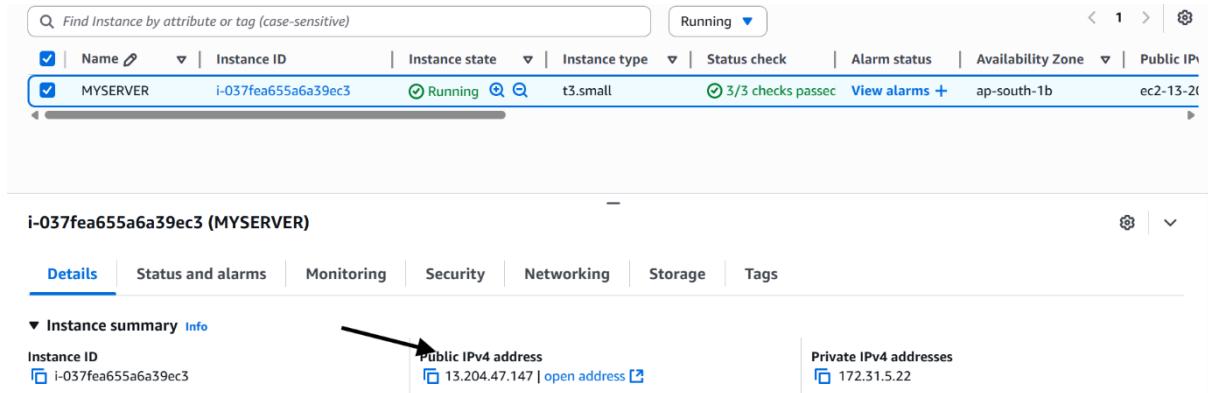
1. Create a new text document and write something in it (e.g. "THIS IS A SERVER ON WINDOWS!").
2. Save the file as "index.html".
3. Then minimize the virtual server.



Step 6:

1. Go to "Instances" on the previous tab.

2. Select the instance and copy the “Public IPv4 address” in “Details” section below.



Find Instance by attribute or tag (case-sensitive)

Running

Name: MYSERVER

Instance ID: i-037fea655a6a39ec3

Instance state: Running

Instance type: t3.small

Status check: 3/3 checks passed

Alarm status: View alarms

Availability Zone: ap-south-1b

Public IP: ec2-13-204-47-147

i-037fea655a6a39ec3 (MYSERVER)

Details Status and alarms Monitoring Security Networking Storage Tags

Instance summary

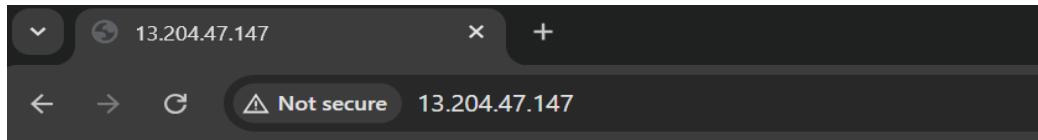
Instance ID: i-037fea655a6a39ec3

Public IPv4 address: 13.204.47.147

Private IPv4 addresses: 172.31.5.22

Step 7:

- Paste the IP address on new tab and search.
- The Windows server is hosted.



THIS IS A SERVER ON WINDOW!

Creating and Using AMIs in AWS EC2

Introduction:

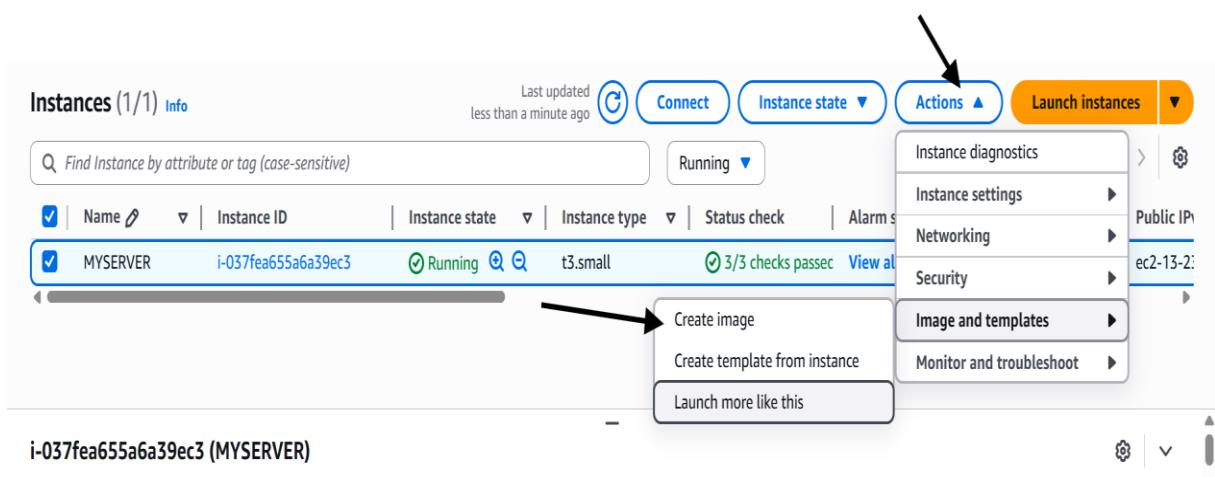
An AMI is a pre-configured template used to launch EC2 instances on AWS. It acts like a snapshot of a virtual machine, containing the necessary software, operating system, and configurations needed to start a cloud server. Think of it as a snapshot of a virtual machine that includes:

3. Operating system (e.g., Linux, Windows)
4. Application server and installed applications
5. Launch permissions (who can use it)
6. Storage mappings (how volumes are attached)

Step by Step Instructions:

Step 1:

7. Select the instance that you have created earlier.
8. Go to “Actions”.
9. Click on “Image and templates”.



10. Click on “Create image”.

Step 2:

11. Write the name of the image (e.g. "image1").
12. Image description is optional.
13. Uncheck "Reboot instance".
14. Then click on "Create image".
15. You can see that the image is being created.

EC2 > Instances > i-037fea655a6a39ec3 > Create image

Create image Info

An image (also referred to as an AMI) defines the programs and settings that are applied when you launch an EC2 instance. You can create an image from the configuration of an existing instance.

Image details

Instance ID: [i-037fea655a6a39ec3](#) (MYSERVER)

Image name: Maximum 127 characters. Can't be modified after creation.

Image description - optional: Maximum 255 characters

Reboot instance When selected, Amazon EC2 reboots the instance so that data is at rest when snapshots of the attached volumes are taken. This ensures data consistency.

Cancel **Create image**

aws | [Search](#) [Alt+S] | Asia Pacific (Mumbai) | Anshika%20Mishra

EC2 > Instances

Currently creating AMI ami-0e07ffd9c81160227 from instance i-037fea655a6a39ec3. Check that the AMI status is 'Available' before deleting the instance or carrying out other actions related to this AMI. X

Instances (1/1) [Info](#) Last updated less than a minute ago [C](#) Connect [Instance state](#) Actions Launch Instances

Find Instance by attribute or tag (case-sensitive) All states

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IP
MYSERVER	i-037fea655a6a39ec3	Running	t3.small	3/3 checks passed	View alarms +	ap-south-1b	ec2-13-2

i-037fea655a6a39ec3 (MYSERVER)

Details Status and alarms Monitoring Security Networking Storage Tags

Instance summary [Info](#)

Instance ID: [i-037fea655a6a39ec3](#) Public IPv4 address: [13.233.65.130](#) | [open address](#) Private IPv4 addresses: [172.31.5.22](#)

Step 3:

16. Go to “AMIs” under “Images” section in EC2.
17. There you will find the AMI that is created.
18. Now select the AMI and check its status.
19. If “Pending”, wait for few seconds until it becomes “Available”.

aws | [Search](#) [Alt+S] | Asia Pacific (Mumbai) | Anshika%20Mishra

EC2 > AMIs

Amazon Machine Images (AMIs) (1/1) [Info](#) [Recycle Bin](#) [EC2 Image Builder](#) Actions Launch instance from AMI

Owned by me [Find AMI by attribute or tag](#)

Name	AMI name	AMI ID	Source	Owner
<input checked="" type="checkbox"/>	image1	ami-0e07ffd9c81160227	167341897048/image1	167341

AMI ID: ami-0e07ffd9c81160227

Amazon Machine Images (AMIs) (1/1) [Info](#)

Owned by me [▼](#) [Find AMI by attribute or tag](#)

Owner	Visibility	Status	Creation date	Platform	Root device
167341897048	Private	Pending	2025/07/13 17:15 GMT+5:30	Windows	ebs

Amazon Machine Images (AMIs) (1) [Info](#)

Owned by me [▼](#) [Find AMI by attribute or tag](#)

Source	Owner	Visibility	Status	Creation date	Platform
167341897048/image1	167341897048	Private	Available	2025/07/13 17:15 GMT+5:30	Windows

20. Now you can either terminate the instance or let it be.

Step 4:

21. Select the AMI and go to “Actions”.
22. Click on “Copy AMI”.

aws [Search](#) [Alt+S] Asia Pacific (Mumbai) Anshika%20Mishra

EC2 > AMIs

Amazon Machine Images (AMIs) (1/1) [Info](#)

Owned by me [▼](#) [Find AMI by attribute or tag](#)

Name	AMI ID	Source
<input checked="" type="checkbox"/> image1	ami-0e07ffd9c81160227	167341897048/image1

AMI ID: ami-0e07ffd9c81160227

[Details](#) [Permissions](#) [Storage](#) [Tags](#)

AMI ID	Image type	Platform details	Root device type
ami-0e07ffd9c81160227	machine	Windows	EBS
AMI name	Owner account ID	Architecture	Usage operation

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

23. Under “Copy Amazon Machine Image (AMI)”, write the “AMI copy name” (e.g. “image1”).
24. Leave the “AMI copy description” as it is.
25. Now, change the “Destination Region” to “United States (Ohio)” or any other region where you want to copy your AMI.

Copy Amazon Machine Image (AMI)

Original AMI ID

 ami-0e07ffd9c81160227

AMI copy name

image1

AMI copy description

[Copied ami-0e07ffd9c81160227 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

Destination Region

A copy of the original AMI will be created in the destination Region.

United States (Ohio)

26. Leave other settings as it is.
27. Click on “Copy AMI”.
28. The AMI is being copied to Ohio region.

Cancel **Copy AMI**

EC2 > AMIs

Capacity Reservations

▼ Images

AMIs

AMI Catalog

▼ Elastic Block Store

Volumes

Snapshots

Lifecycle Manager

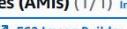
▼ Network & Security

Security Groups

Elastic IPs

AMI copy operation for ami-006203df30ae5da0e initiated
It can take a few minutes for the AMI to be copied. You can check the progress of the operation in the AMI list in [us-east-2](#). The AMI ID of the new AMI is ami-0a618dfc2c712abdb8.

Amazon Machine Images (AMIs) (1/1) [Info](#)

  Actions ▾ 

Owned by me	AMI name	AMI ID	Source	Owner
<input checked="" type="checkbox"/>	image1	ami-006203df30ae5da0e	110007729643/image1	110007729643

Step 5:

29. Change the region to where you have copied your AMI (i.e. “United States (Ohio)”).
30. Now go to “AMIs” in Ohio region and there you will find the AMI that you have copied from Mumbai region.

Amazon Machine Images (AMIs) (1) [Info](#)

Owned by me [Find AMI by attribute or tag](#)

Name	AMI name	AMI ID	Source
	image1	ami-0e07ffd9c81160227	167341897048/image1

Select an AMI

United States

- N. Virginia us-east-1
- Ohio** (highlighted) us-east-2
- N. California us-west-1
- Oregon us-west-2

Asia Pacific

- Mumbai ap-south-1
- Osaka ap-northeast-3
- Seoul ap-northeast-2
- Singapore ap-southeast-1
- Sydney ap-southeast-2
- Tokyo ap-northeast-1

Canada

- Central ca-central-1

Europe

[Manage Regions](#) [Manage Local Zones](#)

Amazon Machine Images (AMIs) (1/1) [Info](#)

Owned by me [Find AMI by attribute or tag](#)

Name	AMI name	AMI ID	Source	Owner	Visibility
<input checked="" type="checkbox"/>	image1	ami-0058494a9e6d5bbc1	167341897048/image1	167341897048	Private

Actions [Launch instance from AMI](#)

Step 6:

31. Now select the AMI and check its status.
32. If “Pending”, wait for few seconds until it becomes “Available”.
33. Then click on “Launch instance from AMI”.

Amazon Machine Images (AMIs) (1/1) [Info](#)

Owned by me [Find AMI by attribute or tag](#)

Name	Owner	Visibility	Status	Creation date	Platform
image1	167341897048	Private	Pending	2025/07/13 17:35 GMT+5:30	Windows

Amazon Machine Images (AMIs) (1/1) [Info](#)

Owned by me [Find AMI by attribute or tag](#)

Name	Owner	Visibility	Status	Creation date	Platform
image1	167341897048	Private	Available	2025/07/13 17:35 GMT+5:30	Windows

Step 7:

34. Enter the name of the server (e.g. "copyserver").
35. In "Application and OS Images (AMI)", go to "My AMIs".

Launch an instance Info

Amazon EC2 allows you to create virtual machines, or instances, that run on the AWS Cloud. Quickly get started by following the simple steps below.

Name and tags Info

Name copyserver  Add additional tags

Application and OS Images (Amazon Machine Image) Info

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below



AMI from catalog **Recents** **My AMIs** **Quick Start** 

Name
image1

Description
[Copied ami-006203df30ae5da0e from ap-south-1] image1

Image ID
ami-0a618dfc2c712abd8

Username
Administrator

Browse more AMIs  Including AMIs from AWS, Marketplace and the Community

36. The copied AMI is already selected.

AMI from catalog **Recents** **My AMIs** **Quick Start** 

Owned by me Shared with me  **Browse more AMIs**  Including AMIs from AWS, Marketplace and the Community

Amazon Machine Image (AMI)

image1 ami-0a618dfc2c712abd8 2025-07-12T13:55:45.000Z Virtualization: hvm ENA enabled: true Root device type: ebs Boot mode: uefi

image1 ami-0a618dfc2c712abd8 2025-07-12T13:55:45.000Z Virtualization: hvm ENA enabled: true Root device type: ebs Boot mode: uefi

x86_64 ami-0a618dfc2c712abd8  

Step 8:

37. Select “Instance type” according to your need (e.g. “t3.small”).



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

Instance type

t3.small 

Family: t3 2 vCPU 2 GiB Memory Current generation: true
On-Demand RHEL base pricing: 0.0496 USD per Hour
On-Demand Ubuntu Pro base pricing: 0.0243 USD per Hour
On-Demand Windows base pricing: 0.0392 USD per Hour
On-Demand Linux base pricing: 0.0208 USD per Hour
On-Demand SUSE base pricing: 0.0518 USD per Hour

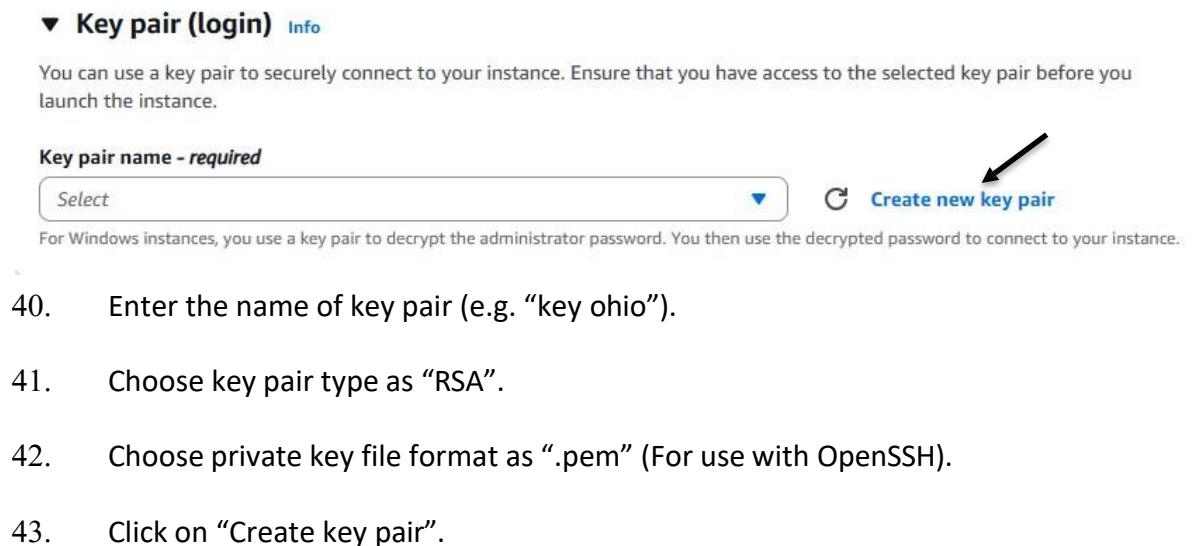
 All generations

[Compare instance types](#)

Additional costs apply for AMIs with pre-installed software

38. In “Key pair (login)”, either create a new key pair or use old key pairs.

39. For creating a new key pair, click on “Create new key pair”.



Key pair (login) [Info](#)

You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.

Key pair name - required

  **Create new key pair**

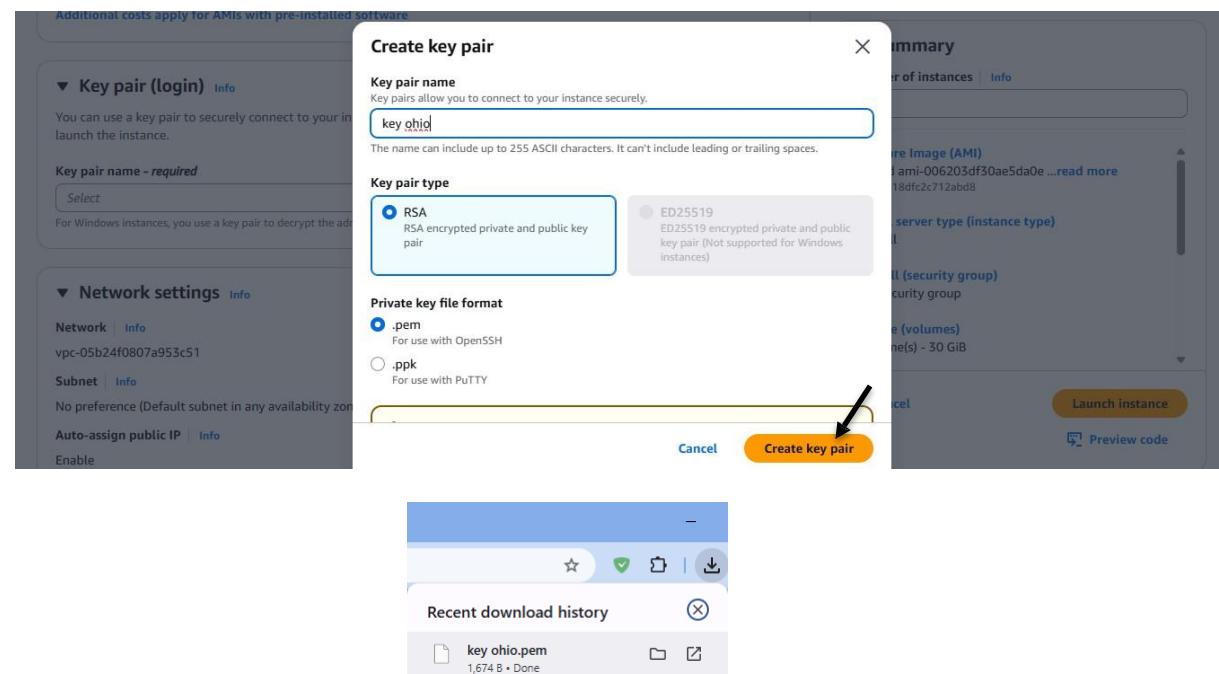
For Windows instances, you use a key pair to decrypt the administrator password. You then use the decrypted password to connect to your instance.

40. Enter the name of key pair (e.g. “key ohio”).

41. Choose key pair type as “RSA”.

42. Choose private key file format as “.pem” (For use with OpenSSH).

43. Click on “Create key pair”.



Create key pair

Key pair name
Key pairs allow you to connect to your instance securely.
 

The name can include up to 255 ASCII characters. It can't include leading or trailing spaces.

Key pair type

RSA RSA encrypted private and public key pair

ED25519 ED25519 encrypted private and public key pair (Not supported for Windows instances)

Private key file format

.pem For use with OpenSSH

.ppk For use with PuTTY

Summary

Number of instances: [Info](#)

AMI: ami-006203df30ae5da0e ... [read more](#)

Instance type (instance type): t3.small 

Security group: [Create new security group](#) [Edit security group](#)

Block device (volumes): [Create new volume](#) [Edit volumes](#) [Delete volumes](#) [Volume\(s\) - 30 GiB](#)

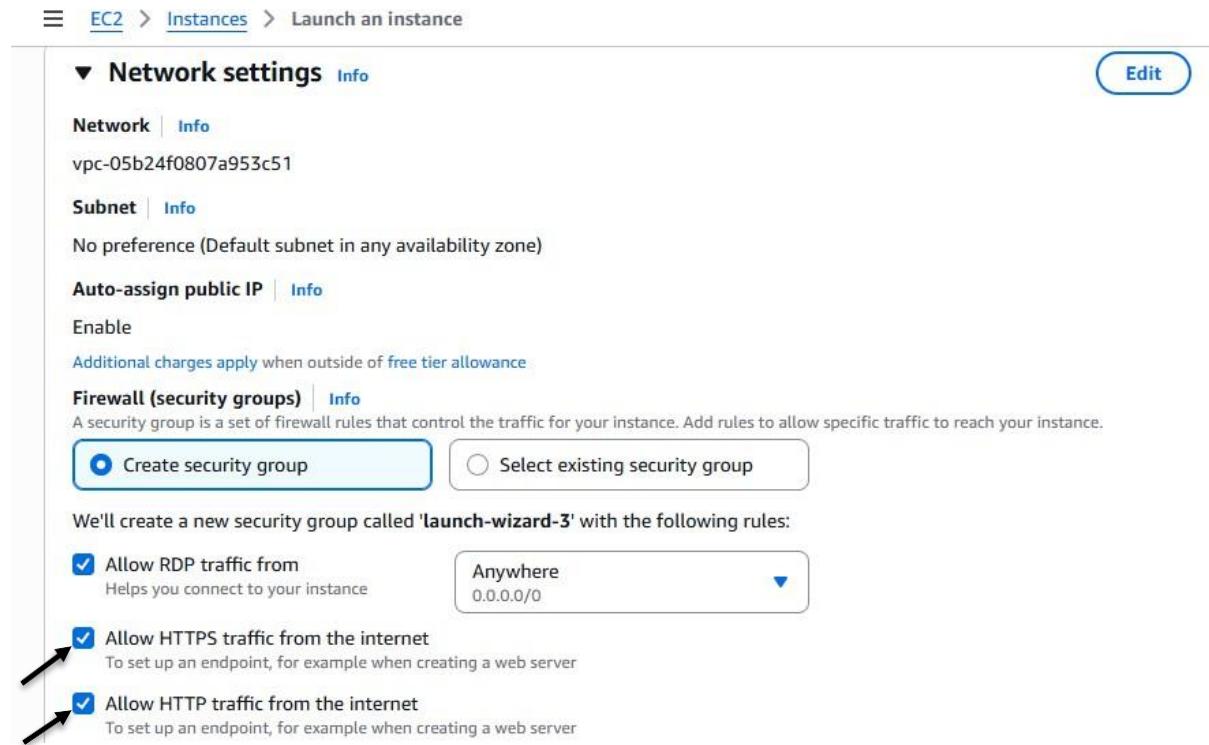
Create  **Create key pair** [Cancel](#) [Preview code](#)

Recent download history 

key ohio.pem 1,674 B • Done

Step 9:

44. In “Network settings”, allow “HTTPS traffic from the internet” and “HTTP traffic from the internet”.



EC2 > Instances > Launch an instance

Network settings

Network | [Info](#)
vpc-05b24f0807a953c51

Subnet | [Info](#)
No preference (Default subnet in any availability zone)

Auto-assign public IP | [Info](#)
Enable
Additional charges apply when outside of free tier allowance

Firewall (security groups) | [Info](#)
A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

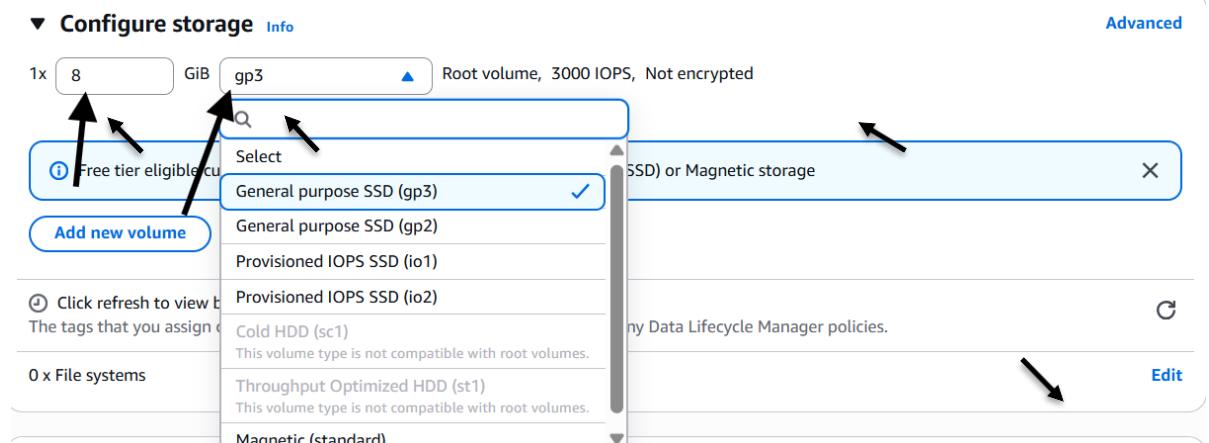
Create security group Select existing security group

We'll create a new security group called 'launch-wizard-3' with the following rules:

- Allow RDP traffic from Anywhere (0.0.0.0/0)
- Allow HTTPS traffic from the internet
To set up an endpoint, for example when creating a web server
- Allow HTTP traffic from the internet
To set up an endpoint, for example when creating a web server

Step 10:

45. In “Configure storage”, enter the root volume storage you want for your instance and select any type of GiB as per your preference.
46. In “Summary”, enter the number of instances you want to launch (e.g. “1”).
47. Then finally click on “Launch instance”.



Configure storage [Info](#) [Advanced](#)

1x	8 GiB	gp3	Root volume, 3000 IOPS, Not encrypted
<input type="button" value="Free tier eligible"/>	<input type="button" value="Add new volume"/>	<input type="button" value="Select"/>	<input checked="" type="button" value="General purpose SSD (gp3)"/>
<input type="button" value="General purpose SSD (gp2)"/>			
<input type="button" value="Provisioned IOPS SSD (io1)"/>			
<input type="button" value="Provisioned IOPS SSD (io2)"/>			
<input type="button" value="Cold HDD (sc1)"/>			
<input type="button" value="Throughput Optimized HDD (st1)"/>			
<input type="button" value="Magnetic (standard)"/>			

Click refresh to view latest volume types. The tags that you assign to this volume apply to all volumes in this instance. Any Data Lifecycle Manager policies.

0 x File systems [Edit](#)

▼ Summary

Number of instances | [Info](#)

1

Firewall (security group)

New security group

Storage (volumes)

1 volume(s) - 8 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) when used with free tier AMIs, 750 hours per month of public IPv4 address usage, 30 GiB of EBS storage, 2 million I/Os, 1 GB of snapshots, and 100 GB of bandwidth to the internet.

[Cancel](#)

[Launch instance](#)

[Preview code](#)

☰ [EC2](#) > [Instances](#) > Launch an instance

Success
Successfully initiated launch of instance (i-0366aaf0844665d80)

[Launch log](#)

Next Steps

Q. What would you like to do next with this instance, for example "create alarm" or "create backup"

1 2 3 4 5 6 >

48. You can see that the instance you have created is running.

aws | Search [Alt+S] | United States (Ohio) | Anshika%20Mishra

☰ [EC2](#) > [Instances](#)

Instances (1) Info	Last updated 3 minutes ago	Connect	Instance state ▾	Actions ▾	Launch instances
<input type="checkbox"/> copyserver i-01fb0bbb24aebcf0	Running Details Logs	t3.small	Initializing	View alarms +	us-east-2c ec2-18-2:

Step 11:

49. Select the instance and copy the "Public IPv4 address" in "Details" section below.

EC2 > Instances

Instances (1/1) Info

Last updated 4 minutes ago

Connect Instance state Actions Launch instances

Find Instance by attribute or tag (case-sensitive) All states

Name Instance ID Instance state Instance type Status check Alarm status Availability Zone Public IP

copyserver i-01fb0bbb24aebcf0 Running t3.small Initializing View alarms us-east-2c ec2-18-2

i-01fb0bbb24aebcf0 (copyserver)

Details Status and alarms Monitoring Security Networking Storage Tags

Instance summary

Instance ID: i-01fb0bbb24aebcf0

Public IPv4 address: 18.221.136.246 | [open address](#)

Private IPv4 addresses: 172.31.38.15

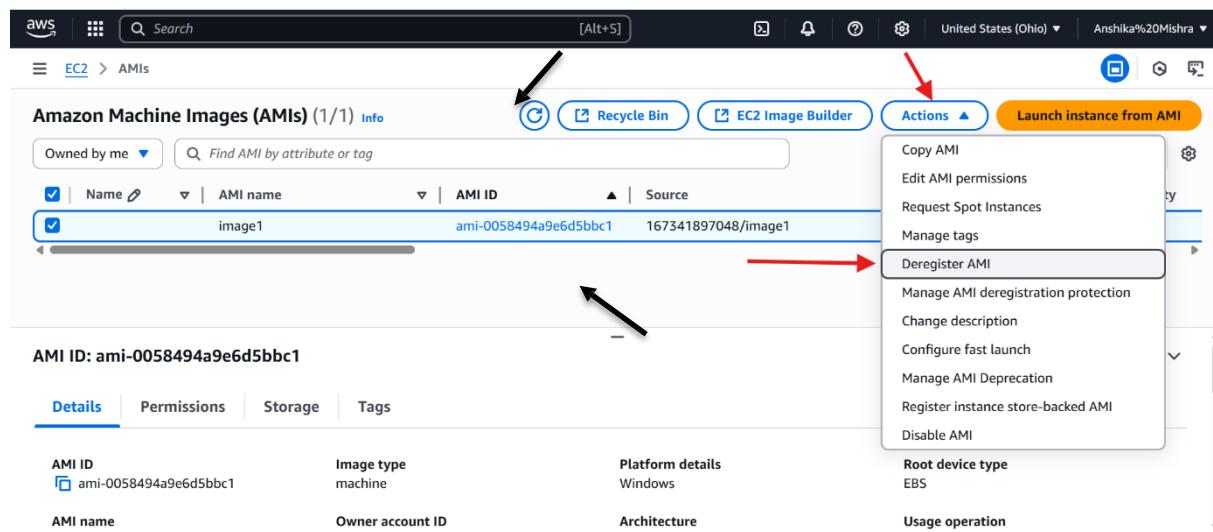
50. Paste the IP address on new tab and search.
51. The data of the instance is displayed whose AMI was created.



Step 12:

52. Now, if you want to delete the AMI then select the AMI.

53. Go to “Actions” and click on “Deregister AMI”.

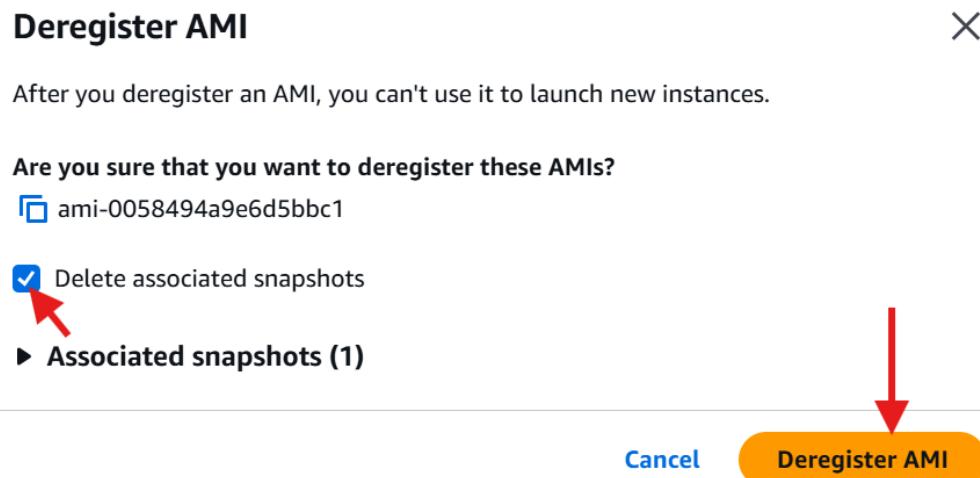


The screenshot shows the AWS EC2 AMIs page. At the top, there are buttons for 'Recycle Bin' and 'EC2 Image Builder'. Below that is a search bar and a 'Actions' dropdown menu. The 'Actions' menu is open, and the 'Deregister AMI' option is highlighted with a red box and an arrow. On the left, there is a table with an AMI named 'image1' (AMI ID: ami-0058494a9e6d5bbc1). At the bottom, there are tabs for 'Details', 'Permissions', 'Storage', and 'Tags', with 'Details' being the active tab. Below the table, there are sections for AMI ID, Image type, Platform details, AMI name, Owner account ID, Architecture, and Root device type.

54. Check “Delete associated snapshots”.

55. Click on “Deregister AMI”.

56. AMI is deregistered.



EBS Volume Management in AWS EC2

Introduction:

Elastic Block Store (EBS) in AWS provides persistent, block-level storage for EC2 instances. EBS volumes function like virtual hard drives, retaining data even after an instance is stopped. Users can manage storage by provisioning, attaching, resizing, optimizing performance, and taking snapshots. This flexible storage solution is well-suited for high-performance workloads like databases, file systems, and enterprise applications.

Step by Step Instructions:

Step 1:

- We already have a server running in Mumbai region.
- Now go to “Elastic Block Store” in EC2.
- Click on “Volumes”.
- There is already a 30 GiB volume present in “Volumes”. This is the root volume which is created at the time of instance creation.
- Now click on “Create Volume”.



The screenshot shows the AWS Management Console interface for the Elastic Block Store (EBS) service. The left sidebar navigation bar is visible, with the 'Elastic Block Store' section expanded and the 'Volumes' option selected. The main content area is titled 'Volumes (1/1) Info' and displays a single volume entry. The volume details are as follows:

Name	Volume ID	Type	Size	IOPS	Throughput	Snapshot ID	Created
vol-09dea43906b6bf9aa	gp3	30 GiB	3000	125		snap-0ca01db...	2025/07/

Below the table, the text 'Volume ID: vol-09dea43906b6bf9aa' is displayed. At the top right of the main area, there is a yellow 'Actions' button with a dropdown arrow, and an orange 'Create volume' button. A black arrow points from the text 'Now click on “Create Volume”.' to the 'Create volume' button.

Step 2:

- Select any “Volume type” (e.g. Magnetic (standard)).
- Enter the “Size (GiB)” (e.g. “5”).
- Minimum and maximum size range is given.

EC2 > Volumes > Create volume

Create volume Info

Create an Amazon EBS volume to attach to any EC2 instance in the same Availability Zone.

Volume settings

Volume type Info
General Purpose SSD (gp3)

Size (GiB) Info
100
Min: 1 GiB, Max: 16384 GiB.

IOPS Info
3000
Min: 3000 IOPS, Max: 16000 IOPS.

Throughput (MiB/s) Info
125

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Volume settings

Volume type Info

Magnetic (standard)

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)

Size (GiB) Info

5

Min: 1 GiB, Max: 1024 GiB.

- Now check the “Availability Zone” of the instance and set the “Availability Zone” of the volume according to it.
- Click on “Create volume”.

Instances (1) Info

Last updated less than a minute ago

Connect Instance state Info

Find Instance by attribute or tag (case-sensitive)

All states Info

Instance state | Instance type | Status check | Alarm status | Availability Zone

Running t3.small 3/3 checks passed View alarms + ap-south-1b

Availability Zone Info

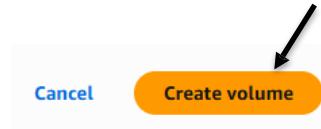
ap-south-1b



ap-south-1a

ap-south-1b

ap-south-1c



- A volume of 5 GiB is created.

Volumes (1/2) [Info](#)

Last updated less than a minute ago [Actions](#) [Create volume](#)

Choose filter set [Search](#)

Name	Volume ID	Type	Size	IOPS	Throughput	Snapshot ID	Created
<input checked="" type="checkbox"/> vol-05f87a9bb5480d099	vol-05f87a9bb5480d099	standard	5 GiB	-	-	-	2025/07/
<input type="checkbox"/> vol-09dea43906b6bf9aa	vol-09dea43906b6bf9aa	gp3	30 GiB	3000	125	snap-0ca01db...	2025/07/

Step 3:

- Check the state of created volume.
- If it is in “Available” state, then select the volume.
- Go to “Actions”.
- Click on “Attach volume”.

Volumes (1/2) [Info](#)

Choose filter set [Search](#)

Availability Zone	Volume state
ap-south-1b	<input checked="" type="radio"/> Available
ap-south-1b	<input checked="" type="radio"/> In-use

Volumes (1/2) [Info](#)

Last updated 1 minute ago [Actions](#)

Choose filter set [Search](#)

Availability Zone	Volume state	Alarm status	Attached resources
ap-south-1b	<input checked="" type="radio"/> Available	No alarms	+
ap-south-1b	<input checked="" type="radio"/> In-use	No alarms	+

Volume ID: vol-05f87a9bb5480d099

[Details](#) [Status checks](#) [Monitoring](#) [Tags](#)

Actions

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

Step 4:

- In “Instance”, select the instance that you have created earlier.
- Select any device name for Windows (e.g. “xvdc”).
- Then click on “Attach volume”.
- Now you can see that the volume is attached to the server and is “In-use”.

Attach volume Info

Attach a volume to an instance to use it as you would a regular physical hard disk drive.

Basic details

Volume ID
vol-05f87a9bb5480d099

Availability Zone
ap-south-1b

Instance | **Info**
i-052a96258fb738c30
(myserver) (running) 

Only instances in the same Availability Zone as the selected volume are displayed.

Device name | **Info**
xvdc 

Recommended device names for Windows: /dev/sda1 for root volume, xvdf[f-p] for data volumes.

Device Selection

Q |

Recommended for data volumes

xvdb	Windows
xvdc	Windows <input checked="" type="checkbox"/>
xvdd	Windows
xvde	Windows
xvdf	Windows
xvdg	Windows
xvdh	Windows
xvdc	Windows

Recommended device names for Windows: /dev/sda1 for root volume, xvdf[f-p] for data volumes.

Buttons

Attach volume

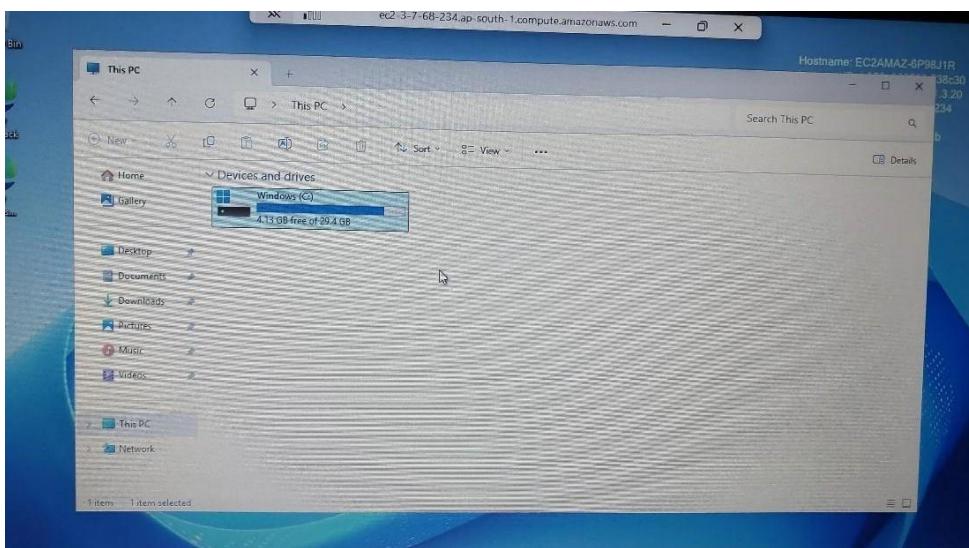
Availability Zone ▾ | **Volume state** ▾

ap-south-1b In-use

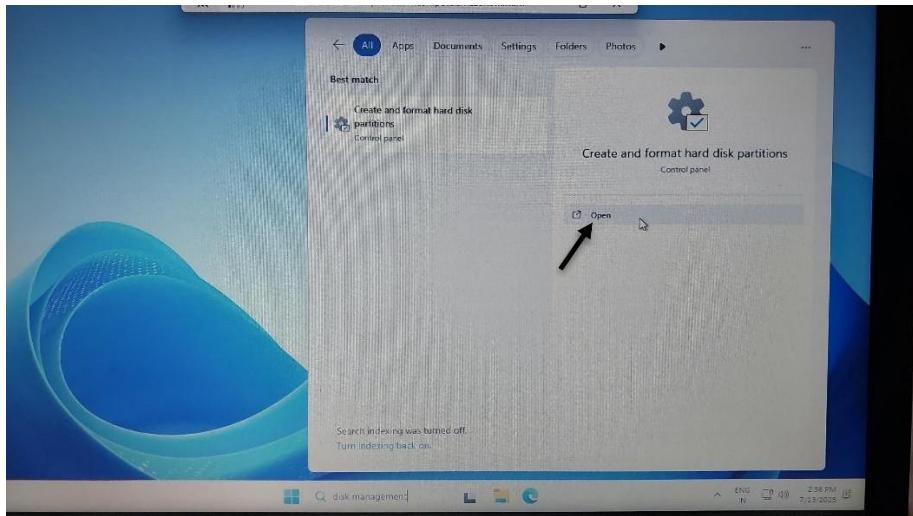
ap-south-1b In-use

Step 5:

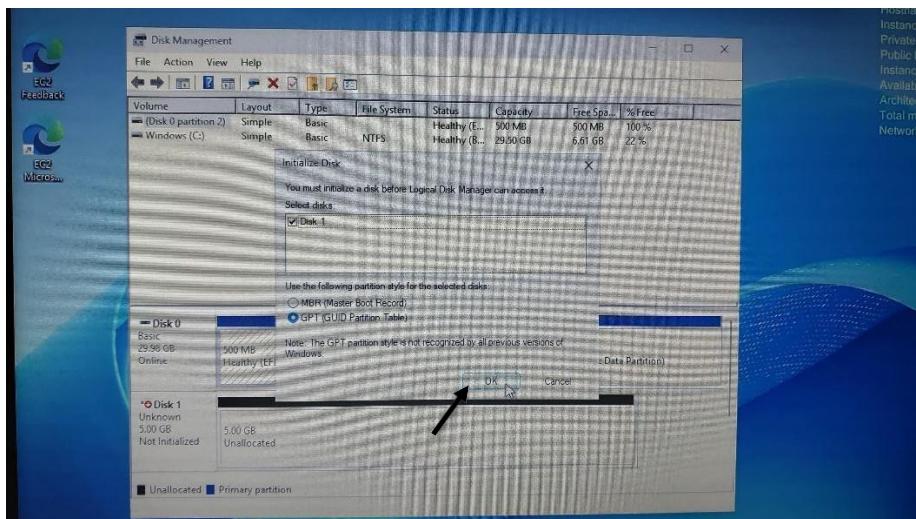
- In the virtual server, we can see that there is only C drive present.



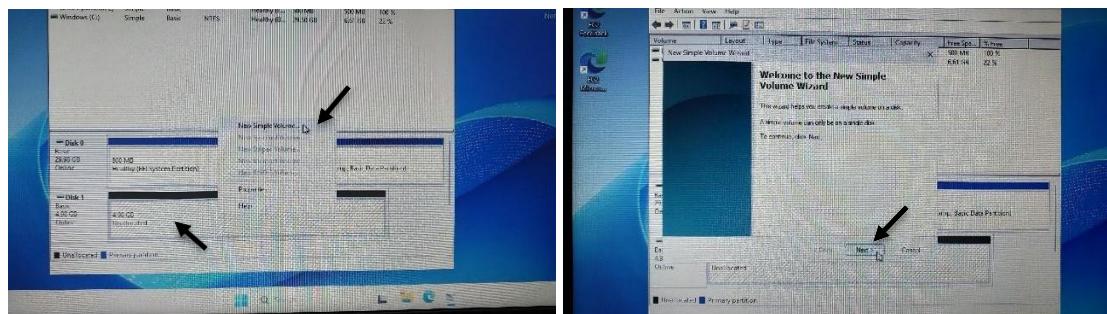
- Search “disk management” and open it.



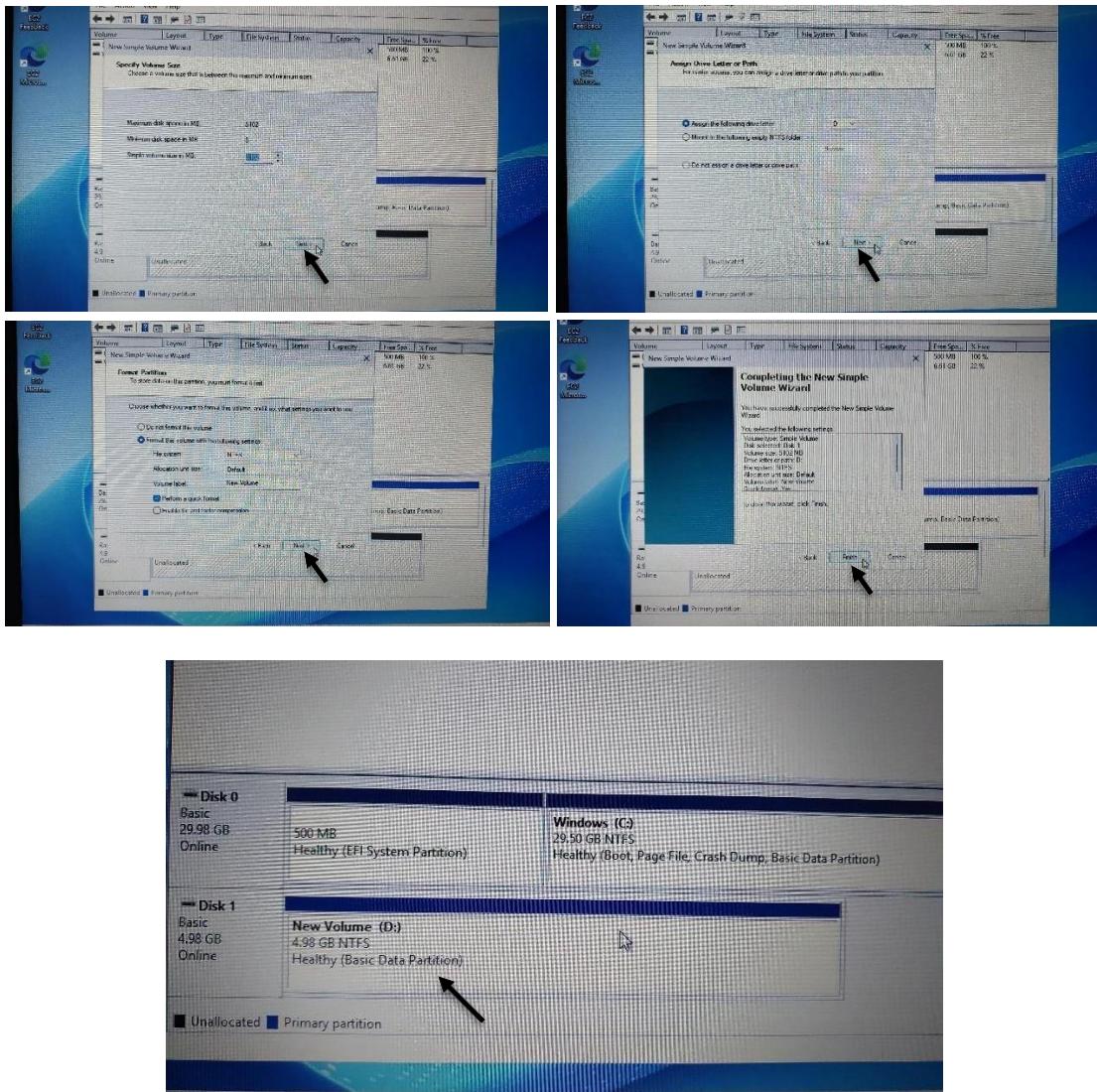
- Disk 1 is not initialized and unallocated.
- Click on “OK” and initialize Disk 1.



- Right click on “Unallocated” (right side block).
- Click on “New Simple Volume...”, then click on “Next”.

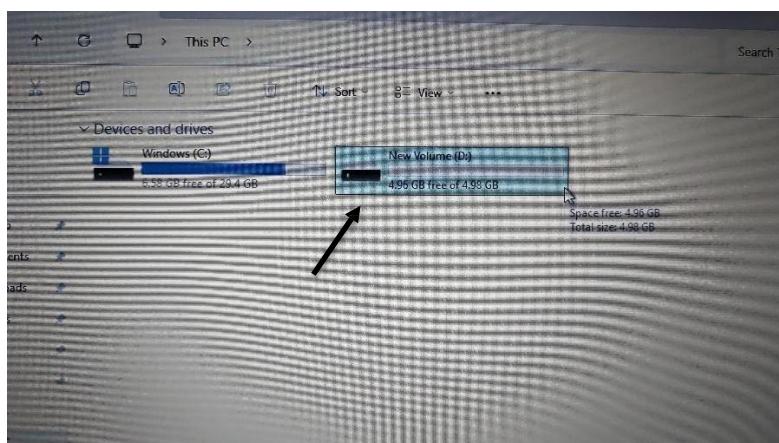


- Now click on “Next” till the last option.
- At last, click on “Finish”.
- Now, Disk 1 is Online, Healthy and ready for use.



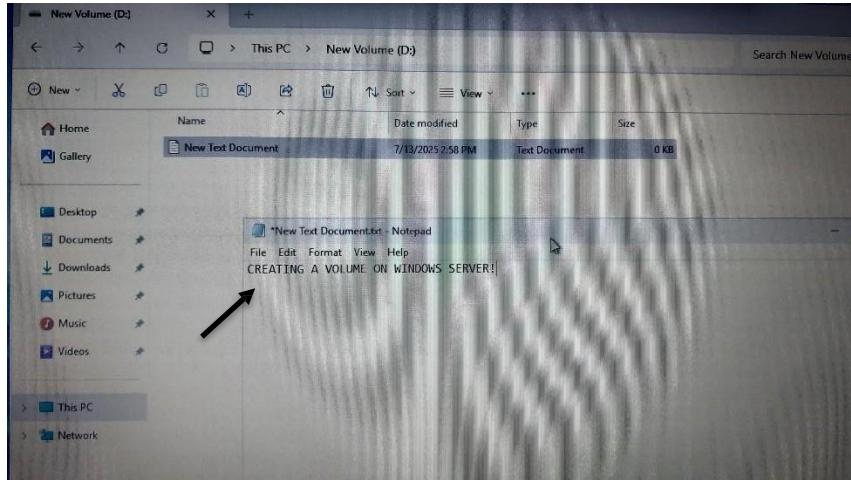
Step 6:

- Go to “File Explorer” and then go to “This PC”.
- There you will find the volume that you have attached.



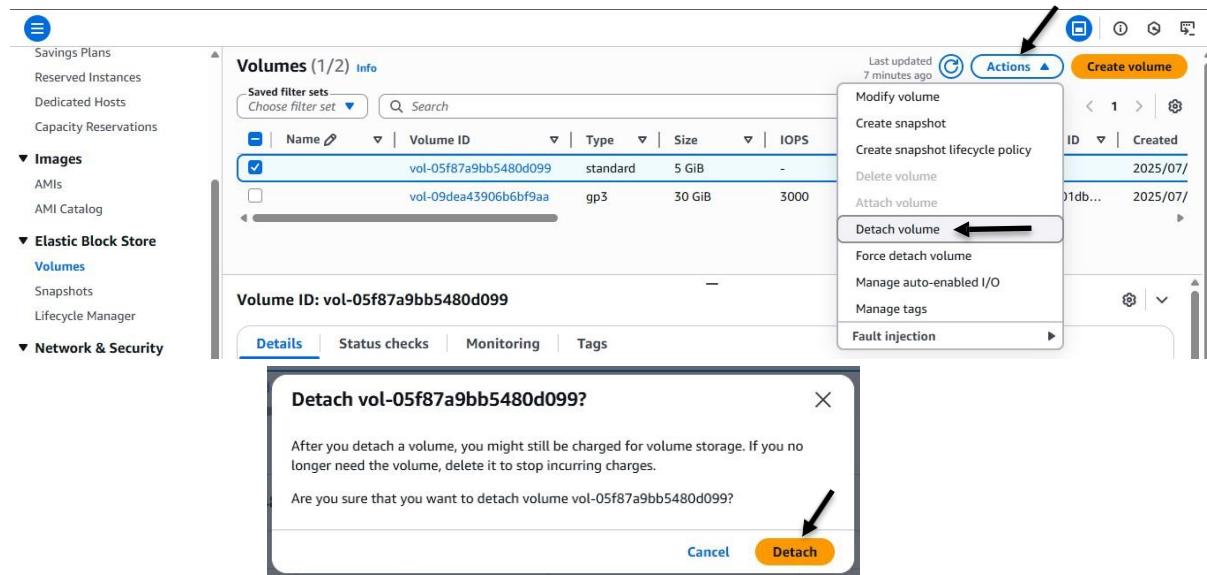
- Click on “D drive”.

- Create any text file and write something in it or copy-paste any file from the local desktop to virtual desktop's "D drive".
- Save the file and minimize the virtual server.



Step 7:

- Now go back to "Volumes".
- Select the volume that you have created.
- Go to "Actions" and click on "Detach volume".
- Click on "Detach".



- Volume is detached from the virtual server and the status becomes "Available".
- Now, terminate the previous instance and run a new instance.
- The data that we have entered in the volume is saved and can be attached to another server in the same zone.

Volumes (2) Info

Last updated less than a minute ago

Actions **Create volume**

Throughput	Snapshot ID	Created	Availability Zone	Volume state	Alarm status	Att.
-	-	2025/07/13 20:21 GMT+5:...	ap-south-1b	Available	No alarms	+
125	snap-0ca01db...	2025/07/13 20:09 GMT+5:...	ap-south-1b	In-use	No alarms	i-0

Instances (1/2) Info

Last updated less than a minute ago

Actions **Launch instances**

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability
<input checked="" type="checkbox"/> newserver	i-057e272b99a5bbb79	Running	t3.small	Initializing	View alarms +	ap-south-1t
<input type="checkbox"/> myserver	i-052a96258fb738c30	Terminated	t3.small	-	View alarms +	ap-south-1t

Step 8:

- In “Volumes”, select the volume that you have created.
- Go to “Actions”.
- Click on “Attach volume” and attach it to the new instance (“newserver”) created.

EC2 > Volumes > vol-05f87a9bb5480d099 > Attach volume

Attach volume Info

Attach a volume to an instance to use it as you would a regular physical hard disk drive.

Basic details

Volume ID: [vol-05f87a9bb5480d099](#)

Availability Zone: ap-south-1b

Instance: [i-057e272b99a5bbb79 \(newserver\) \(running\)](#)

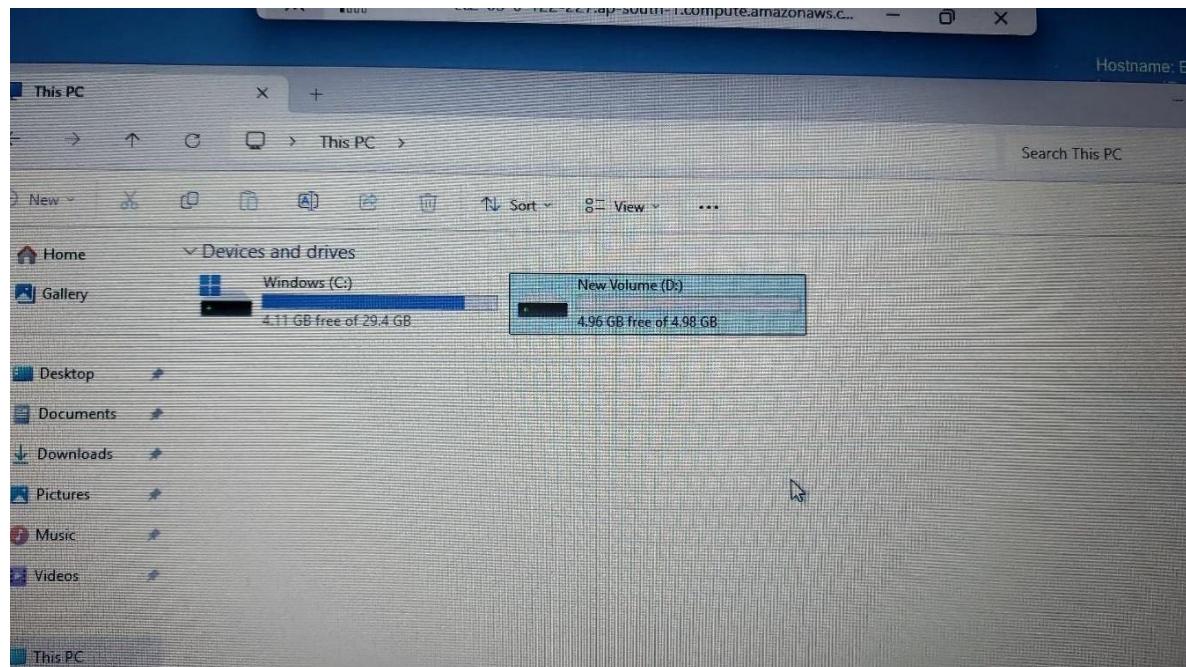
Device name: [xvdc](#)

Instance: [i-057e272b99a5bbb79 \(newserver\) \(running\)](#)

Step 9:

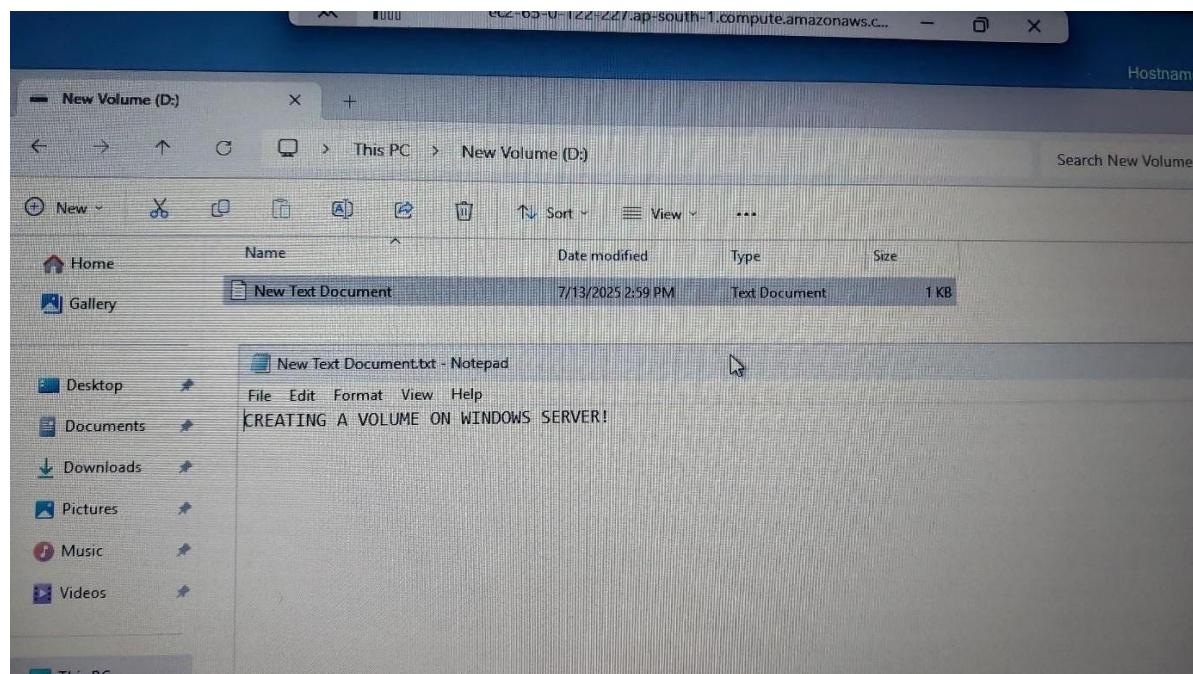
- Connect the newly created instance and open “File Explorer”.
- Then go to “This PC”.

- There you will find two volumes – one is root volume and the other is the one we have attached just now.
- This time, there is no need to mount the disk.



Step 10:

- Open the D drive.
- The data that we entered before is preserved.



Snapshot Creation and Recovery in AWS EC2

Introduction:

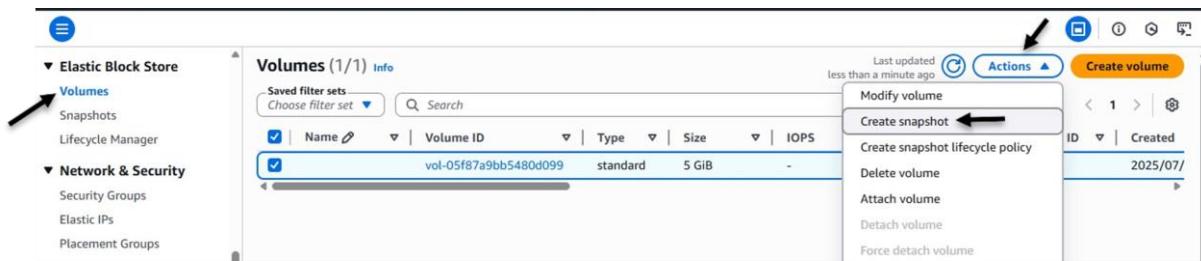
In AWS EC2, snapshots are point-in-time backups of EBS volumes stored in Amazon S3. They're incremental and storage-efficient, capturing only the changes since the last snapshot. These snapshots can be used to restore data, create new volumes, or replicate across regions—supporting fast, secure recovery with minimal downtime.

Snapshots play a vital role in disaster recovery, data migration, and version control of critical systems. You can automate snapshot schedules using AWS Backup or lifecycle policies, making data protection both consistent and manageable across environments.

Step by Step Instructions:

Step 1:

- After detaching the volume from previous instance and terminating the server, go to “Volumes” and select the volume.
- Now we will create a snapshot of the volume.
- Go to “Actions”.
- Click on “Create snapshot”.



Step 2:

- The “Volume ID” and “Availability Zone” are already mentioned.
- Give a “Description” to the snapshot (e.g. “snap1”).
- Click on “Create snapshot”.

EC2 > Volumes > vol-05f87a9bb5480d099 > Create snapshot

Create snapshot Info

Create a point-in-time snapshot to back up the data on an Amazon EBS volume to Amazon S3.

Source volume

Volume ID
vol-05f87a9bb5480d099

Availability Zone
ap-south-1b

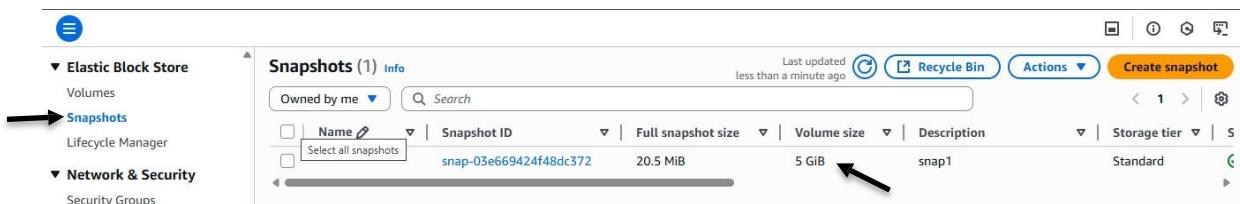
Snapshot details

Description
Add a description for your snapshot
snap1

Encryption Info
Not encrypted

Cancel **Create snapshot**

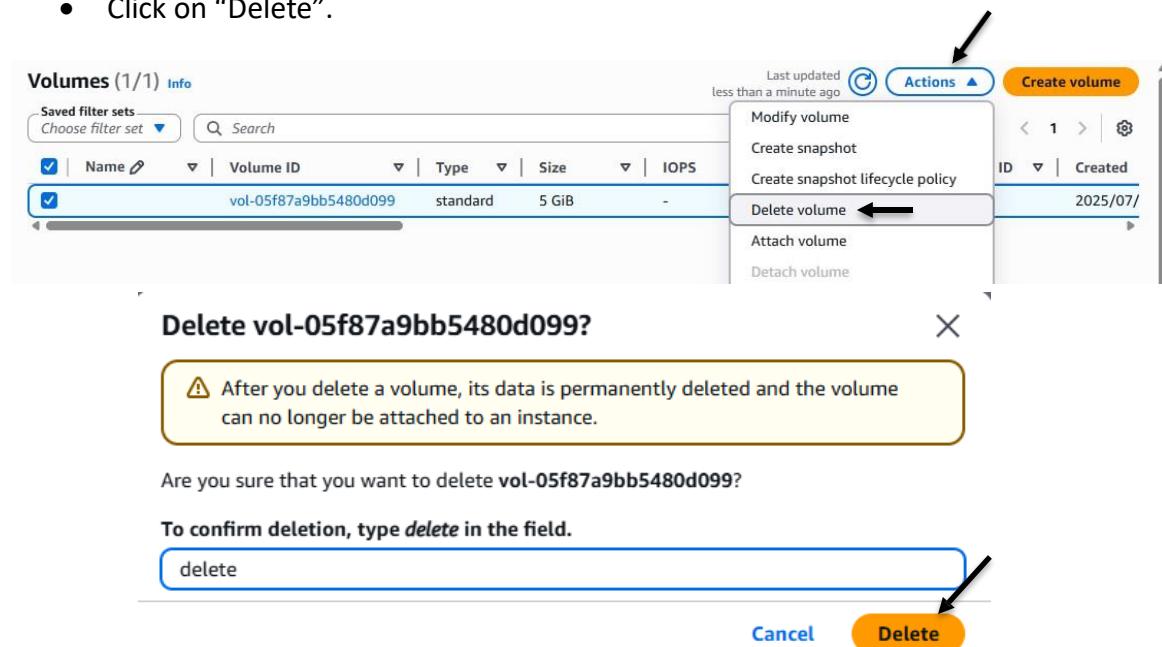
- The snapshot is created.
- Go to “Snapshots” under EBS and there you can see all the snapshots.



The screenshot shows the AWS EBS Snapshots page. On the left, there is a navigation sidebar with 'Elastic Block Store' expanded, showing 'Volumes' and 'Snapshots' (which is highlighted with a black arrow). The main area displays a table of snapshots. The first snapshot in the list is selected. The table columns include 'Name' (snap1), 'Snapshot ID' (snap-03e669424f48dc372), 'Full snapshot size' (20.5 MiB), 'Volume size' (5 GiB), 'Description' (snap1), and 'Storage tier' (Standard). The 'Actions' button is visible at the top right of the table.

Step 3:

- Once the snapshot is created, there is no need of the volume.
- Go to “Actions” and click on “Delete volume”.
- Click on “Delete”.



The screenshot shows the AWS Volumes page. On the left, there is a table of volumes. The first volume in the list is selected. The table columns include 'Name' (vol-05f87a9bb5480d099), 'Volume ID' (vol-05f87a9bb5480d099), 'Type' (standard), 'Size' (5 GiB), and 'IOPS' (1). On the right, a context menu is open over the selected volume. The menu items are: 'Actions' (highlighted with a black arrow), 'Modify volume', 'Create snapshot', 'Create snapshot lifecycle policy', 'Delete volume' (highlighted with a black arrow), 'Attach volume', and 'Detach volume'. A confirmation dialog box titled 'Delete vol-05f87a9bb5480d099?' is displayed. It contains a warning message: '⚠ After you delete a volume, its data is permanently deleted and the volume can no longer be attached to an instance.' Below the message, it asks 'Are you sure that you want to delete vol-05f87a9bb5480d099?'. A text input field says 'To confirm deletion, type **delete** in the field.' with 'delete' typed in. At the bottom of the dialog are 'Cancel' and 'Delete' buttons (highlighted with a black arrow).

Step 4:

- Go to “Snapshots” and select the snapshot.
- Go to “Actions” and click on “Copy snapshot”.

Snapshots (1/1) [Info](#)

Last updated less than a minute ago

Owned by me [Search](#)

Snapshot ID Full snapshot size Volume size

<input checked="" type="checkbox"/>	snap-03e669424f48dc372	20.5 MiB	5 GiB
-------------------------------------	------------------------	----------	-------

Actions ▾

- Create volume from snapshot
- Create image from snapshot
- Copy snapshot** ←
- Launch copy duration calculator
- Delete snapshot
- Manage tags
- Snapshot settings ▾
- Archiving ▾

- Choose the “Destination Region” as “us-east-2” i.e., Ohio.
- Click on “Copy snapshot”.
- Snapshot is copied to Ohio region.

EC2 > Snapshots > snap-03e669424f48dc372 > Copy snapshot

Copy snapshot [Info](#)

Copy a snapshot from one AWS Region to another, or within the same Region.

Source snapshot

The original snapshot that is to be copied.

Snapshot ID [snap-03e669424f48dc372](#) **Region** ap-south-1

Snapshot copy details

Description
A description for the snapshot copy.
[Copied snap-03e669424f48dc372 from ap-south-1] snap1
255 characters maximum.

Destination Region
The Region in which to create the snapshot copy.
ap-south-1

Destination Region
The Region in which to create the snapshot copy.

us-east-2

ap-southeast-2

eu-central-1

us-east-1

us-east-2 ←

us-west-1

us-west-2

Cancel **Copy snapshot**

Successfully created snapshot copy snap-09ff2539ef954421c in us-east-2 [i]

Snapshots (1) [Info](#)

Last updated less than a minute ago

Owned by me [Search](#)

Snapshot ID Full snapshot size Volume size Description Storage tier

<input checked="" type="checkbox"/>	snap-03e669424f48dc372	20.5 MiB	5 GiB	snap1	Standard
-------------------------------------	------------------------	----------	-------	-------	----------

Actions ▾

Create snapshot

Step 5:

- Change the region to Ohio where we have copied the snapshot.
- Go to “Snapshots” and there you will find the copied snapshot.

Snapshots (1) Info

Last updated 1 minute ago

Name	Snapshot ID	Full snapshot size	Volume size	Description
	snap-03d9b5b2aaa3c209a	-	5 GiB	-

Select a snapshot above.

Regions:

- United States
 - N. Virginia us-east-1
 - Ohio us-east-2**
 - N. California us-west-1
 - Oregon us-west-2
- Asia Pacific
 - Mumbai ap-south-1
 - Osaka ap-northeast-3
 - Seoul ap-northeast-2
 - Singapore ap-southeast-1
 - Sydney ap-southeast-2
 - Tokyo ap-northeast-1
- Canada
 - Central ca-central-1
- Europe

Create snapshot

Last updated 1 minute ago

Name	Snapshot ID	Full snapshot size	Volume size	Description	Storage tier	Snapshot status
<input checked="" type="checkbox"/>	snap-077208610f38e3141	0 B	5 GiB	[Copied snap-03d9b5b2aa...	Standard	Completed

- Now launch a new instance in Ohio region.
- Check its “Availability Zone” for further use.

Instances (1/1) Info

Last updated less than a minute ago

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability
<input checked="" type="checkbox"/>	ohioserver i-02f870d31d9f6c5f5	Running	t3.small	3/3 checks passed	View alarms +	us-east-2c

Alarm status | Availability Zone

View alarms + us-east-2c

- Now go to “Snapshots” and select the snapshot.
- Click on “Actions”.
- Select “Create volume from snapshot”.

Snapshots (1/1) Info

Last updated 2 minutes ago

Name	Snapshot ID	Full snapshot size	Volume size	Description
<input checked="" type="checkbox"/>	snap-077208610f38e3141	0 B	5 GiB	[Copied snap...

Snapshot ID: snap-077208610f38e3141

Actions

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

Step 6:

- Select any “Volume type” (e.g. “Magnetic (standard)”).
- Then select the “Availability Zone” same as the instance created earlier.
- Click on “Create volume”.

EC2 > Snapshots > snap-09ff2539ef954421c > Create volume

Create volume Info

Create an Amazon EBS volume to attach to any EC2 instance in the same Availability Zone.

Volume settings

Snapshot ID
snap-09ff2539ef954421c

Volume type Info
General Purpose SSD (gp3)

Size (GiB) Info
5
Min: 1 GiB, Max: 16384 GiB.

IOPS Info
3000
Min: 3000 IOPS, Max: 16000 IOPS.

Throughput (MiB/s) Info
125

Volume type Info
Magnetic (standard)

Size (GiB) Info
5
Min: 1 GiB, Max: 1024 GiB.

IOPS Info
Not applicable

Throughput (MiB/s) Info
Not applicable

Availability Zone Info
us-east-2c

Create volume

- The volume is successfully created from the snapshot.

Volumes (1/2) Info

Last updated less than a minute ago

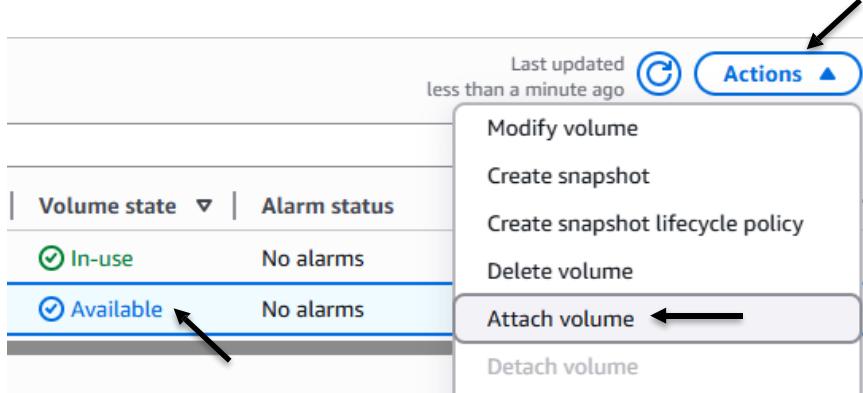
Actions Create volume

Name	Volume ID	Type	Size	IOPS	Throughput	Snapshot ID	Created
vol-0c6821f41fdf78877	gp3	30 GiB	3000	125		snap-06d3870...	2025/07/
vol-0dfb3052b3115015a	standard	5 GiB	-	-		snap-09ff253...	2025/07/

Step 7:

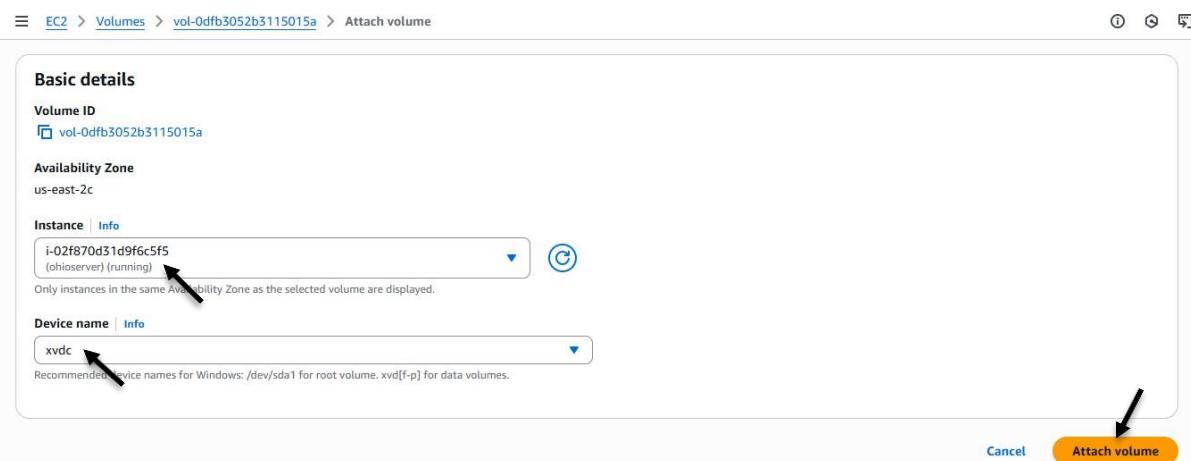
- Now check the state of the volume.
- If it is “Available”, then select the volume and go to “Actions”.

- Click on “Attach volume”.

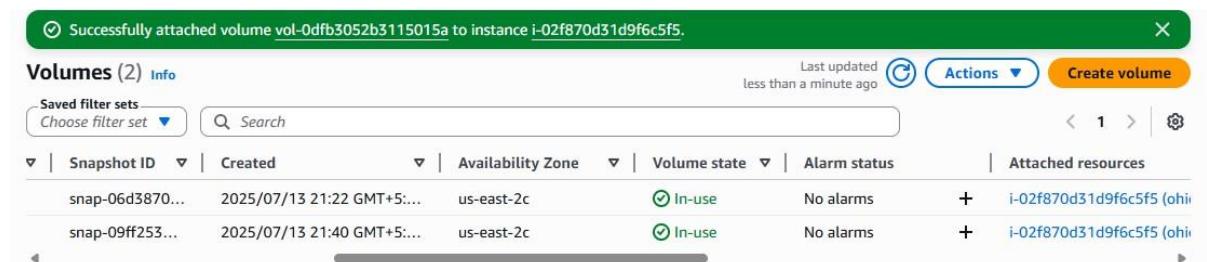


Step 8:

- Similarly, attach the volume just like before.
- Select the “Instance” and “Device name”.
- Click on “Attach volume”.



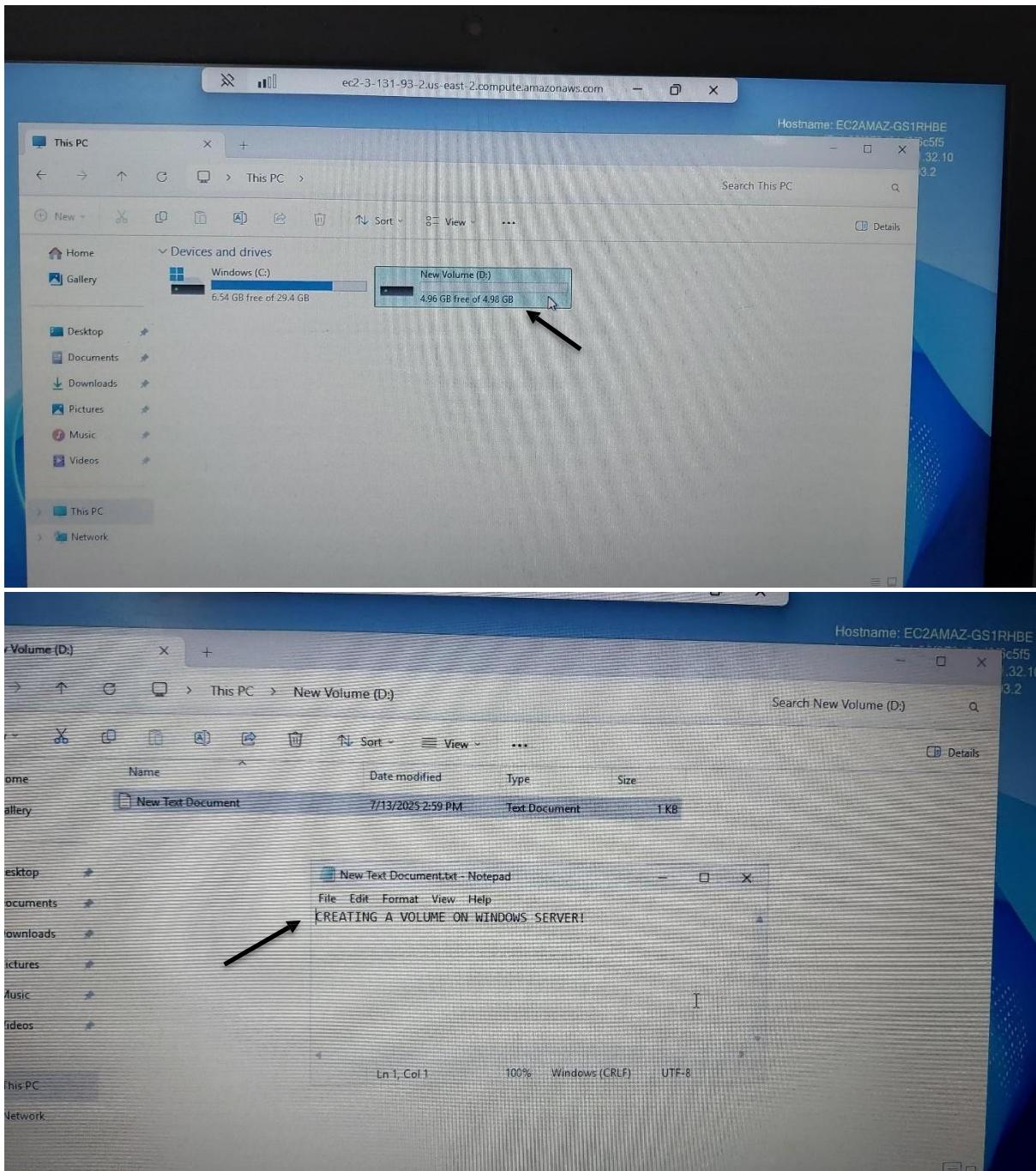
- The volume is successfully attached to the server and is in “In-use” state.



Step 9:

- Now, connect the instance of Ohio region and open the desktop.
- Go to “File Explorer” and click on “This PC”.
- There you will find the volume that we have attached just now.
- Click on “D drive”.

- The data that you entered in this volume is preserved and healthy.



Step 10:

- Now, minimize the virtual server and go to “Snapshots”.
- Select the snapshot.
- Go to “Actions” and click on “Delete snapshot”.
- Type “delete” and then click on “Delete”.

Snapshots (1/1) [Info](#)

Last updated less than a minute ago

Owned by me [Search](#)

Name [Edit](#) Snapshot ID [Edit](#) Full snapshot size [Edit](#) Volume size [Edit](#)

<input checked="" type="checkbox"/>	snap-09ff2539ef954421c	20.5 MiB	5 GiB
-------------------------------------	------------------------	----------	-------

[Actions](#)

- Create volume from snapshot
- Create image from snapshot
- Copy snapshot
- Launch copy duration calculator
- Delete snapshot**
- Manage tags

Delete snap-09ff2539ef954421c?



Are you sure that you want to delete snap-09ff2539ef954421c?

To confirm deletion, type **delete** in the field.

[Cancel](#)

Delete

Step 11:

- We can see that even if the snapshot is deleted, the volume is still present.
- Now, detach the volume from the server.
- Go to “Actions” and click on “Detach volume”.
- Click on “Detach”.

Volumes (1/2) [Info](#)

Last updated 3 minutes ago

Saved filter sets [Choose filter set](#) [Search](#)

Created [Edit](#) Availability Zone [Edit](#) Volume state [Edit](#) Alarm status [Edit](#)

2025/07/13 21:22 GMT+5:...	us-east-2c	<input checked="" type="checkbox"/> In-use	No alarms
2025/07/13 21:40 GMT+5:...	us-east-2c	<input checked="" type="checkbox"/> In-use	No alarms

[Actions](#)

- Modify volume
- Create snapshot
- Create snapshot lifecycle policy
- Delete volume
- Attach volume
- Detach volume**
- Force detach volume

Detach vol-0dfb3052b3115015a?



After you detach a volume, you might still be charged for volume storage. If you no longer need the volume, delete it to stop incurring charges.

Are you sure that you want to detach volume vol-0dfb3052b3115015a?

[Cancel](#)

Detach

Step 12:

- Terminate the Ohio server.

Instances [Info](#)

Last updated less than a minute ago

Owned by me [Search](#)

Name [Edit](#) Instance ID [Edit](#) Instance state [Edit](#)

<input checked="" type="checkbox"/>	ohioserver	i-02f870d31d9f6c5f5	<input checked="" type="checkbox"/> Terminated Edit Details Logs
-------------------------------------	------------	---------------------	--

[Actions](#)

- Terminate

Step 13:

- Now, to delete the volume, go to “Volumes”.
- Select the volume and go to “Actions”.
- Click on “Delete volume”.
- Type “delete” and click on “Delete”.

The screenshot shows the AWS Volumes page with one volume listed. The volume is selected, and a context menu is open under the 'Actions' button. The 'Delete volume' option is highlighted with a red arrow. A second red arrow points to the 'Delete' button in a confirmation dialog box.

Volumes (1/1) [Info](#)

Last updated [less than a minute ago](#) [C](#) **Actions** [▲](#)

Saved filter sets [Choose filter set ▾](#) [Search](#)

<input checked="" type="checkbox"/>	Name D	Volume ID	Type	Size	IOPS
<input checked="" type="checkbox"/>	vol-0dfb3052b3115015a	standard	5 GiB	-	-

Modify volume
Create snapshot
Create snapshot lifecycle policy
Delete volume [←](#)
Attach volume
Detach volume

Delete vol-0dfb3052b3115015a? [X](#)

⚠ After you delete a volume, its data is permanently deleted and the volume can no longer be attached to an instance.

Are you sure that you want to delete vol-0dfb3052b3115015a?

To confirm deletion, type *delete* in the field.

[Cancel](#) **Delete** [←](#)

- The volume is successfully deleted and hence, the data is also deleted.

Auto Scaling Groups (ASGs)

Introduction:

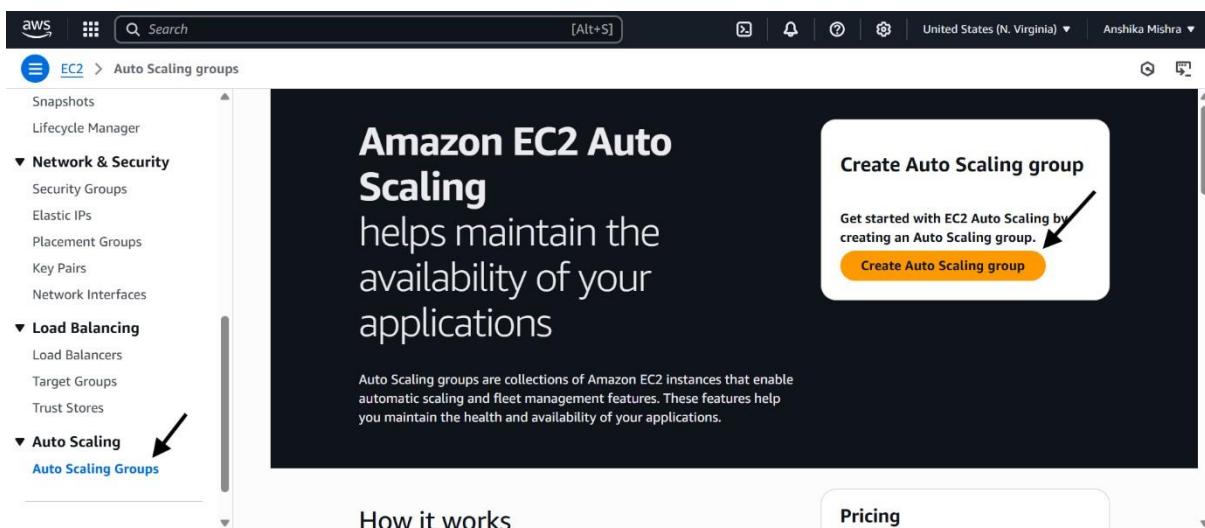
An Auto Scaling Group (ASG) in AWS acts as an intelligent controller for your EC2 instances. It dynamically adjusts the number of instances based on the demand your application experiences. When traffic spikes, the ASG launches additional instances to manage the increased load. Conversely, during low activity periods, it scales down by terminating unnecessary instances to reduce costs.

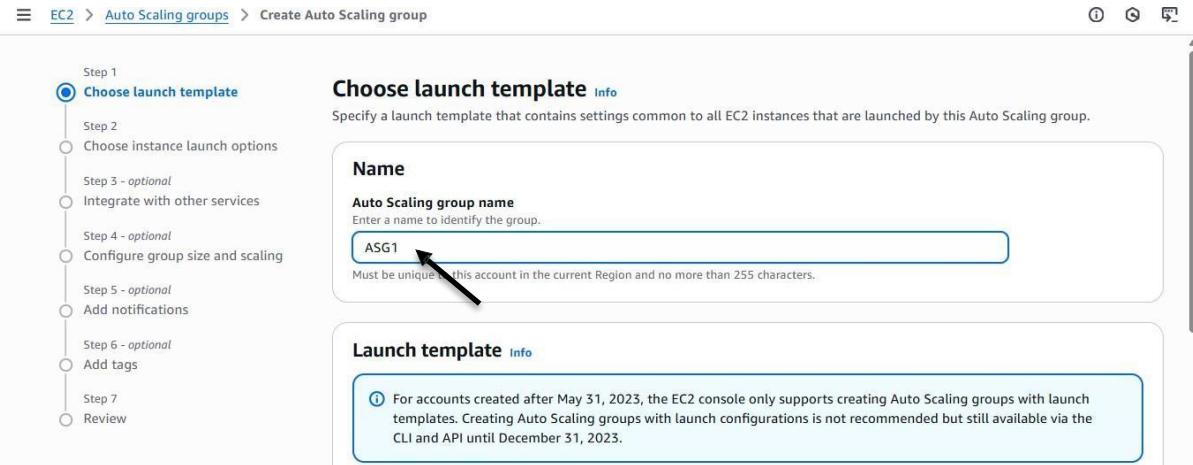
You simply define the minimum and maximum limits for the number of instances, and AWS handles the rest automatically. If an instance fails or becomes unhealthy, the ASG will detect the issue and launch a replacement to maintain application availability.

Step by Step Instructions:

Step 1:

- Go to the "Auto Scaling" section in EC2.
- Click on "Auto Scaling Groups" from the left-hand menu.
- Then, click on the "Create Auto Scaling Group" button.
- You will now go through 7 setup steps to create the group.
- In Step 1: "Choose Launch Template", give a name to your Auto Scaling Group (e.g. "ASG1").





EC2 > Auto Scaling groups > Create Auto Scaling group

Step 1

Choose launch template

Step 2

Choose instance launch options

Step 3 - optional

Integrate with other services

Step 4 - optional

Configure group size and scaling

Step 5 - optional

Add notifications

Step 6 - optional

Add tags

Step 7

Review

Choose launch template Info

Specify a launch template that contains settings common to all EC2 instances that are launched by this Auto Scaling group.

Name

Auto Scaling group name

Enter a name to identify the group.

ASG1

Must be unique to this account in the current Region and no more than 255 characters.

Launch template Info

For accounts created after May 31, 2023, the EC2 console only supports creating Auto Scaling groups with launch templates. Creating Auto Scaling groups with launch configurations is not recommended but still available via the CLI and API until December 31, 2023.

Step 2:

- In the “Launch template” section, click on “Create a launch template” if you don’t have one already.
- If a template already exists, choose that one.
- If you are creating a new one, type a name in the “Launch template name (required)” field (e.g. “MyTemplate1”).

Launch template Info

For accounts created after May 31, 2023, the EC2 console only supports creating Auto Scaling groups with launch templates. Creating Auto Scaling groups with launch configurations is not recommended but still available via the CLI and API until December 31, 2023.

Launch template

Choose a launch template that contains the instance-level settings, such as the Amazon Machine Image (AMI), instance type, key pair, and security groups.

Select a launch template



Create a launch template 

EC2 > Launch templates > Create launch template

Create launch template

Creating a launch template allows you to create a saved instance configuration that can be reused, shared and launched at a later time. Templates can have multiple versions.

Launch template name and description

Launch template name - **required**

MyTemplate1

Must be unique to this account. Max 128 chars. No spaces or special characters like '&', '*', '@'.

Template version description

A prod webserver for MyApp

Max 255 chars

Auto Scaling guidance Info

Select this if you intend to use this template with EC2 Auto Scaling

Provide guidance to help me set up a template that I can use with EC2 Auto Scaling

Summary

Software Image (AMI)

Virtual server type (instance type)

Firewall (security group)

Storage (volumes)

Free tier: In your first year of opening an AWS account, you

Cancel

Create launch template

- Choose the "Application and OS images (required)" based on what you want to run.

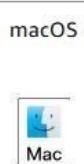
▼ Application and OS Images (Amazon Machine Image) - required [Info](#)

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below

Search our full catalog including 1000s of application and OS images

Recents

Quick Start



[Browse more AMIs](#)

Including AMIs from AWS, Marketplace and the Community

- Pick the "Instance type" that suits your performance needs.

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

[Advanced](#)

Instance type

t2.micro

Free tier eligible

Family: t2 1 vCPU 1 GiB Memory Current generation: true
On-Demand Windows base pricing: 0.017 USD per Hour
On-Demand RHEL base pricing: 0.0268 USD per Hour
On-Demand Linux base pricing: 0.0124 USD per Hour
On-Demand Ubuntu Pro base pricing: 0.0142 USD per Hour
On-Demand SUSE base pricing: 0.0124 USD per Hour

All generations

[Compare instance types](#)

[Additional costs apply for AMIs with pre-installed software](#)

- Choose an existing "Key pair" or create a new one for secure access.

▼ Key pair (login) [Info](#)

You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.

Key pair name

key mumbai



[Create new key pair](#)

- Select 2 to 3 "Security groups" to control traffic to your instance.

Firewall (security groups) | Info
A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow traffic to your instance.

Select existing security group Create security group

Security groups | Info

Select security groups

Specify a custom value...

default	sg-0b9b92f40dafa226e
launch-wizard-2	sg-087031e17841fb954
launch-wizard-1	sg-0250d156ae24cc27d

- Click on "Create launch template".
- Your template is now created.

EC2 > Launch templates > Create launch template

Storage (volumes) | Info

EBS Volumes Hide details

Volume 1 (AMI Root) : 8 GiB, EBS, General purpose SSD (gp3), 3000 IOPS
AMI Volumes are not included in the template unless modified

Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage X

Resource tags | Info

No resource tags are currently included in this template. Add a resource tag to include it in the launch template.

Summary

Software Image (AMI)
Amazon Linux 2023 AMI 2023.8.2... [read more](#)
ami-0a1235697f4afa8a4

Virtual server type (instance type)
t2.micro

Firewall (security group)
3 security groups

Storage (volumes)
1 volume(s) - 8 GiB

Create launch template

Launch Templates (1/1) | Info

Actions ▾ **Create launch template**

Search

Launch Template ID	Launch Template Name	Default Version	Latest Version	Create Ti
lt-097c67099e93184fa	MyTemplate1	1	1	2025-07-11

Step 3:

- Return to the "Auto Scaling Group" setup where you left off.
- Select the "Launch Template" you just created.

- Click on "Next".

Launch template [Info](#)

For accounts created after May 31, 2025, the EC2 console only supports creating Auto Scaling groups with launch templates. Creating Auto Scaling groups with launch configurations is not recommended but still available via the CLI and API until December 31, 2025.

Launch template

Choose a launch template that contains the instance-level settings, such as the Amazon Machine Image (AMI), instance type, key pair, and security groups.

MyTemplate1

Create a launch template [?](#) [C](#)

Version

Default (1) [?](#) [C](#)

Create a launch template version [?](#)

Description

AMI ID

ami-0a1235697f4afab8a4

Key pair name

key mumbai

Launch template

MyTemplate1 [?](#)
lt-097c67099e93184fa

Security groups

Security group IDs

sg-0b9b92f40dfa1226e [?](#)
sg-087031e17841fb954 [?](#)
sg-0250d156ae24cc27d [?](#)

Instance type

t2.micro

Request Spot Instances

No [?](#)

Additional details

Storage (volumes)

Date created

Tue Jul 15 2025 19:41:39 GMT+0530 (India Standard Time)

[Cancel](#) [Next](#)

- You will now be on Step 2, "Choose Instance Launch Option".
- Select all the "Availability Zones and Subnets" where you want your instances to run.

Learn more'."/>

EC2 > Auto Scaling groups > Create Auto Scaling group

Step 1 Choose launch template

Step 2 **Choose instance launch options**

Step 3 - optional

Step 4 - optional

Step 5 - optional

Step 6 - optional

Step 7

Choose instance launch options [Info](#)

Choose the VPC network environment that your instances are launched into, and customize the instance types and purchase options.

Instance type requirements [Info](#)

You can keep the same instance attributes or instance type from your launch template, or you can choose to override the launch template by specifying different instance attributes or manually adding instance types.

Launch template: MyTemplate1 [?](#)
lt-097c67099e93184fa

Version: Default

Description: t2.micro

Network [Info](#)

Choose the VPC that defines the virtual network for your Auto Scaling group.

VPC: vpc-0e88cab9b21c01e4b
172.31.0.0/16 Default

Availability Zones and subnets

Define which Availability Zones and subnets your Auto Scaling group can use in the chosen VPC.

Select Availability Zones and subnets [?](#) [C](#)

aps1-a1 (ap-south-1a) | subnet-0caa2c449b9f93910
172.31.32.0/20 Default

aps1-a2 (ap-south-1c) | subnet-0f35191c87830d0d1
172.31.16.0/20 Default

aps1-a3 (ap-south-1b) | subnet-00e3110f08fc2d3dd
172.31.0.0/20 Default

Create a subnet [?](#)

Availability Zone distribution - new

Auto Scaling automatically balances instances across Availability Zones. If launch failures occur in a zone, select a strategy.

Balanced best effort
If launches fail in one Availability Zone, Auto Scaling will attempt to launch in another healthy Availability Zone.

Balanced only
If launches fail in one Availability Zone, Auto Scaling will continue to attempt to launch in the unhealthy Availability Zone to preserve balanced distribution.

⚠ Your requested instance type (t2.micro) is not available in 1 Availability Zone. You may need to change the instance type or choose other Availability Zones for better resiliency. [Learn more](#)

[Cancel](#) [Skip to review](#) [Previous](#) [Next](#)

- In the "Availability Zone Distribution" section, choose the option according to your needs.
- Click on "Next" to continue.

Step 4:

- Step 3: Go to "Integrate with other services (optional)".
- If there is an existing load balancer, attach it if needed.
- You can also choose the option "Attach to a new load balancer" if you want to create a new one.
- If a load balancer is not required, select "No load balancer".

EC2 > Auto Scaling groups > Create Auto Scaling group

Integrate with other services - *optional* Info

Use a load balancer to distribute network traffic across multiple servers. Enable service-to-service communications with VPC Lattice. Shift resources away from impaired Availability Zones with zonal shift. You can also customize health check replacements and monitoring.

Load balancing Info

Use the options below to attach your Auto Scaling group to an existing load balancer, or to a new load balancer that you define.

No load balancer Traffic to your Auto Scaling group will not be fronted by a load balancer.

Attach to an existing load balancer Choose from your existing load balancers.

Attach to a new load balancer Quickly create a basic load balancer to attach to your Auto Scaling group.

VPC Lattice integration options Info

To improve networking capabilities and scalability, integrate your Auto Scaling group with VPC Lattice. VPC Lattice facilitates communications between AWS services and helps you connect and manage your applications across compute services in AWS.

Select VPC Lattice service to attach

No VPC Lattice service VPC Lattice will not manage your Auto Scaling group's network access and connectivity with other services.

Attach to VPC Lattice service Incoming requests associated with specified VPC Lattice target groups will be routed to your Auto Scaling group.

Create new VPC Lattice service Info

- Check the option "Enable zonal shift" based on your need or preference.
- In the "Health check grace period", the default value is "300 sec". This gives an instance time to start and become stable before health checks begin. Reduce the time to "30 sec".
- Click on "Next".

Application Recovery Controller (ARC) zonal shift - new [Info](#)
During an Availability Zone impairment, target instance launches towards other healthy Availability Zones.

Enable zonal shift
New instance launches will be retargeted towards healthy Availability Zones until the zonal shift is canceled.

Health checks
Health checks increase availability by replacing unhealthy instances. When you use multiple health checks, all are evaluated, and if at least one fails, instance replacement occurs.

EC2 health checks
 [Always enabled](#)

Additional health check types - optional [Info](#)

- Turn on Elastic Load Balancing health checks
Elastic Load Balancing monitors whether instances are available to handle requests. When it reports an unhealthy instance, EC2 Auto Scaling can replace it on its next periodic check.
- Turn on VPC Lattice health checks
VPC Lattice can monitor whether instances are available to handle requests. If it considers a target as failed a health check, EC2 Auto Scaling replaces it after its next periodic check.
- Turn on Amazon EBS health checks
EBS monitors whether an instance's root volume or attached volume stalls. When it reports an unhealthy volume, EC2 Auto Scaling can replace the instance on its next periodic health check.

Health check grace period [Info](#)
This time period delays the first health check until your instances finish initializing. It doesn't prevent an instance from terminating when placed into a non-running state.

30 seconds

[Cancel](#) [Skip to review](#) [Previous](#) **Next**

Step 5:

- Step 4: Go to "Configure group size and scaling (optional)".
- Enter the "Desired Capacity". This is the number of EC2 instances the group will try to keep running at all times (e.g. "2").
- The "Minimum and Maximum Desired Capacity" set the range of how many EC2 instances the group can scale up or down (e.g. min "1" and max "2").

Step 1 Choose launch template
Step 2 Choose instance launch options
Step 3 - optional Integrate with other services
Step 4 - optional **Configure group size and scaling**
Step 5 - optional Add notifications
Step 6 - optional Add tags
Step 7 Review

Configure group size and scaling - optional [Info](#)
Define your group's desired capacity and scaling limits. You can optionally add automatic scaling to adjust the size of your group.

Group size [Info](#)
Set the initial size of the Auto Scaling group. After creating the group, you can change its size to meet demand, either manually or by using automatic scaling.

Desired capacity type
Choose the unit of measurement for the desired capacity value. vCPUs and Memory(GiB) are only supported for mixed instances groups configured with a set of instance attributes.

Units (number of instances)

Desired capacity
Specify your group size.
2

Scaling [Info](#)
You can resize your Auto Scaling group manually or automatically to meet changes in demand.

Scaling limits
Set limits on how much your desired capacity can be increased or decreased.

Min desired capacity 1 Equal or less than desired capacity	Max desired capacity 2 Equal or greater than desired capacity
---	--

- In the "Automatic scaling" section, choose the option "Target tracking scaling policy".
- In the "Metric type" dropdown, select "Average CPU utilization".

- Set the "Target value" as "70". This means when CPU usage goes above 70%, Auto Scaling will add more instances.
- In the "Instance warmup" field, enter "30" seconds.

Automatic scaling - *optional*

Choose whether to use a target tracking policy | [Info](#)

You can set up other metric-based scaling policies and scheduled scaling after creating your Auto Scaling group.

No scaling policies

Your Auto Scaling group will remain at its initial size and will not dynamically resize to meet demand.

Target tracking scaling policy

Choose a CloudWatch metric and target value and let the scaling policy adjust the desired capacity in proportion to the metric's value.

Scaling policy name

Target Tracking Policy

Metric type | [Info](#)

Monitored metric that determines if resource utilization is too low or high. If using EC2 metrics, consider enabling detailed monitoring for better scaling performance.

Average CPU utilization

Target value

70

Instance warmup | [Info](#)

30 seconds

Disable scale in to create only a scale-out policy

- In the "Maintenance Policy" section, choose "No Policy".
- Leave the other steps as it is.
- Click on "Next".

Instance maintenance policy [Info](#)

Control your Auto Scaling group's availability during instance replacement events. This includes health checks, instance refreshes, maximum instance lifetime features and events that happen automatically to keep your group balanced, called rebalancing events.

Choose a replacement behavior depending on your availability requirements

Mixed behavior

No policy

For rebalancing events, new instances will launch before terminating others. For all other events, instances terminate and launch at the same time.

Prioritize availability

Launch before terminating

Launch new instances and wait for them to be ready before terminating others. This allows you to go above your desired capacity by a given percentage and may temporarily increase costs.

Control costs

Terminate and launch

Terminate and launch instances at the same time. This allows you to go below your desired capacity by a given percentage and may temporarily reduce availability.

Flexible

Custom behavior

Set custom values for the minimum and maximum amount of available capacity. This gives you greater flexibility in setting how far below and over your desired capacity EC2 Auto Scaling goes when replacing instances.

[Cancel](#)

[Skip to review](#)

[Previous](#)

[Next](#)

Step 6:

- Step 5: In "Add notifications", click on "Next" if you don't want to set any notifications.

Step 1
Choose launch template
Step 2
Choose instance launch options
Step 3 - optional
Integrate with other services
Step 4 - optional
Configure group size and scaling
Step 5 - optional
Add notifications
Step 6 - optional
Add tags
Step 7
Review

Add notifications - optional Info
Send notifications to SNS topics whenever Amazon EC2 Auto Scaling launches or terminates the EC2 instances in your Auto Scaling group.

Add notification

Cancel Skip to review Previous **Next**

- Step 6: In "Add tags", click on "Next" to continue.

Step 1
Choose launch template
Step 2
Choose instance launch options
Step 3 - optional
Integrate with other services
Step 4 - optional
Configure group size and scaling
Step 5 - optional
Add notifications
Add tags
Step 6 - optional
Step 7
Review

Add tags - optional Info
Add tags to help you search, filter, and track your Auto Scaling group across AWS. You can also choose to automatically add these tags to instances when they are launched.

ⓘ You can optionally choose to add tags to instances (and their attached EBS volumes) by specifying tags in your launch template. We recommend caution, however, because the tag values for instances from your launch template will be overridden if there are any duplicate keys specified for the Auto Scaling group.

Tags (0)
Add tag
50 remaining

Cancel Previous **Next**

- Step 7: In "Review", go through all the settings you have configured.

Step 1
Choose launch template
Step 2
Choose instance launch options
Step 3 - optional
Integrate with other services
Step 4 - optional
Configure group size and scaling
Step 5 - optional
Add notifications
Step 6 - optional
Add tags
Step 7
Review

Review Info

Step 1: Choose launch template

Group details		
Auto Scaling group name	ASG1	

Launch template

Launch template	Version	Description
MyTemplate1 <small>lt-097c67099e93184fa</small>	Default	

Step 2: Choose instance launch options

Network		
VPC	vpc-0e88cab9b21c01e4b <small>Subnets</small>	

Availability Zones and subnets

Availability Zone	Subnet	Subnet CIDR range
-------------------	--------	-------------------

Cancel Previous **Create Auto Scaling group**

- Finally, click on "Create Auto Scaling Group" to complete the setup.

Step 7:

- The "Auto Scaling Group" is now created.
- I entered "2" in the "Desired Capacity" therefore, 2 instances will be launched automatically.

- If any instance becomes unhealthy or gets terminated, a new instance will be created automatically to replace it.

Auto Scaling groups (1/1) [Info](#) Last updated less than a minute ago [Launch configurations](#) [Launch templates](#) [Actions](#) [Create Auto Scaling group](#)

Search your Auto Scaling groups

Name	Launch template/configuration	Instances	Status	Desired capacity	Min	Max
ASG1	MyTemplate1 Version Default	2	-	2	1	2

Instances (2/2) [Info](#) Last updated less than a minute ago [Connect](#) [Instance state](#) [Actions](#) [Launch instances](#)

Find Instance by attribute or tag (case-sensitive)

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IP
ASG1	i-0c41fbafc1fde3e3	Running	t2.micro	2/2 checks passed	View alarms +	ap-south-1b	ec2-3-11
ASG1	i-06ae957a33e6f6996	Running	t2.micro	2/2 checks passed	View alarms +	ap-south-1a	ec2-13-2

Step 8:

- If you want to make any changes to the "Auto Scaling Group", there is an "Edit" option available under "Actions". There you can edit the desired capacity and every other setting that you want to change.
- To delete the "Auto Scaling Group", first select the ASG you want to remove.
- Go to "Actions", click on "Delete".

Auto Scaling groups (1/1) [Info](#) Last updated less than a minute ago [Launch configurations](#) [Launch templates](#) [Actions](#) [Create Auto Scaling group](#)

Search your Auto Scaling groups

Name	Launch template/configuration	Instances	Status	Desired capacity	Min	Max
ASG1	MyTemplate1 Version Default	1	-	1	1	2

- Type "delete" to confirm and then click on "Delete" again.

Delete Auto Scaling group

Delete the following Auto Scaling groups:

- ASG1

⚠ Auto Scaling group contains running instances
Deleting these Auto Scaling groups will terminate all instances in each group. This action cannot be undone.

To confirm deletion, type **delete** in the field.

delete

[Cancel](#) [Delete](#)

- The ASG is now deleted.

- All the instances that were created by the ASG will also be automatically terminated.

Instances (2) [Info](#)

Last updated less than a minute ago [Connect](#) [Instance state](#) [Actions](#) [Launch instances](#)

[Find Instance by attribute or tag \(case-sensitive\)](#) [All states](#)

<input type="checkbox"/> Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IP
<input type="checkbox"/>	i-0c41fbaefc1fde3e3	Terminated View details	t2.micro	-	View alarms +	ap-south-1b	-
<input type="checkbox"/>	i-06ae957a33e6f6996	Terminated View details	t2.micro	-	View alarms +	ap-south-1a	-

Step 9:

- Now there is no use of template and hence, you can delete it also.
- Under “Launch Templates”, select the template and go to “Actions”.
- Click on “Delete template”.

EC2 Global View [Events](#)

[Instances](#) [Instance Types](#) [Launch Templates](#) [Launch Requests](#) [Savings Plans](#) [Reserved Instances](#) [Dedicated Hosts](#) [Capacity Reservations](#)

Launch Templates (1/1) [Info](#)

[Search](#) [Actions](#) [Create launch template](#)

<input checked="" type="checkbox"/> Launch Template ID	Launch Template Name	Default Version
<input checked="" type="checkbox"/> lt-097c67099e93184fa	MyTemplate1	1

MyTemplate1 (lt-097c67099e93184fa)

- Type “Delete” and click on “Delete” button.

Delete Launch Template



You can't undo this action. Any Auto Scaling groups or Spot Fleet requests currently using this launch template might be affected.

Are you sure you want to delete MyTemplate1 (lt-097c67099e93184fa) and all its versions?

To confirm deletion, type **Delete** in the field

▶ CLI commands

[Cancel](#)

[Delete](#)

- The template is deleted.

Elastic Load Balancer (ELB)

Introduction:

An AWS Load Balancer acts like an intelligent traffic controller for your application. When users make requests, the Load Balancer distributes those requests evenly among multiple EC2 instances (which are virtual machines). This helps prevent any single server from becoming overloaded, ensuring consistent performance and minimizing the risk of slowdowns or outages.

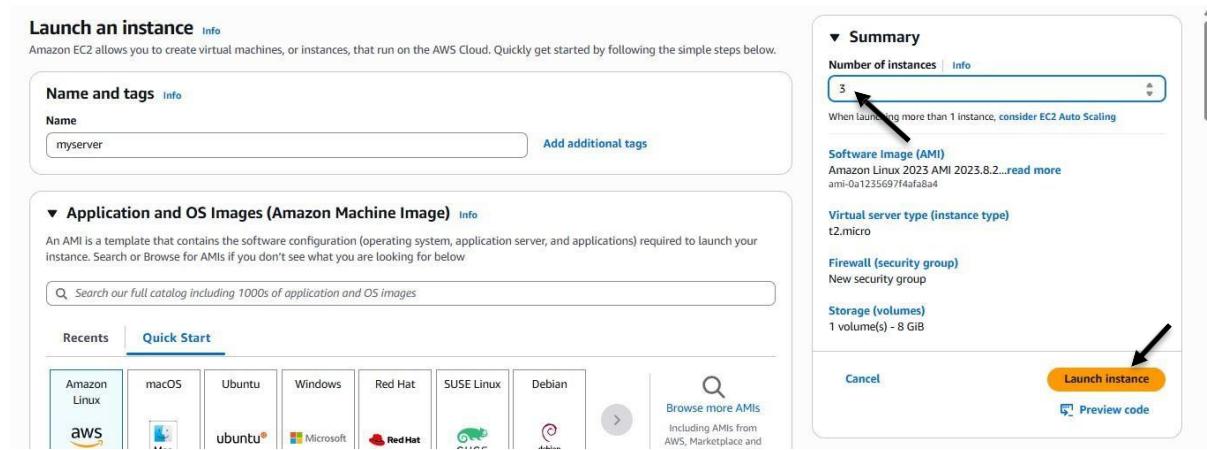
It continuously monitors the health of each server. If it detects that one instance isn't functioning properly, it automatically stops directing traffic to that instance and shifts the load to the ones that are still healthy. This helps maintain your app's availability and responsiveness, even if some servers experience issues.

Additionally, Load Balancers can route requests across several Availability Zones — isolated data centers within AWS. This setup provides increased fault tolerance and helps keep your application running smoothly even if one of the zones experiences a problem.

Step by Step Instructions:

Step 1:

- First, create "3 to 4" or more EC2 instances of any OS and connect to them.
- In the "Launch an Instance" page, go to the "Summary" section on the right side.
- In the "Number of Instances" field, enter the number of instances you want to launch (e.g. "3").
- Click on "Launch Instance".



The screenshot shows the AWS Launch an Instance interface. On the left, there are sections for 'Name and tags' (with 'myserver' entered) and 'Application and OS Images (Amazon Machine Image)'. On the right, the 'Summary' section is expanded, showing the following details:

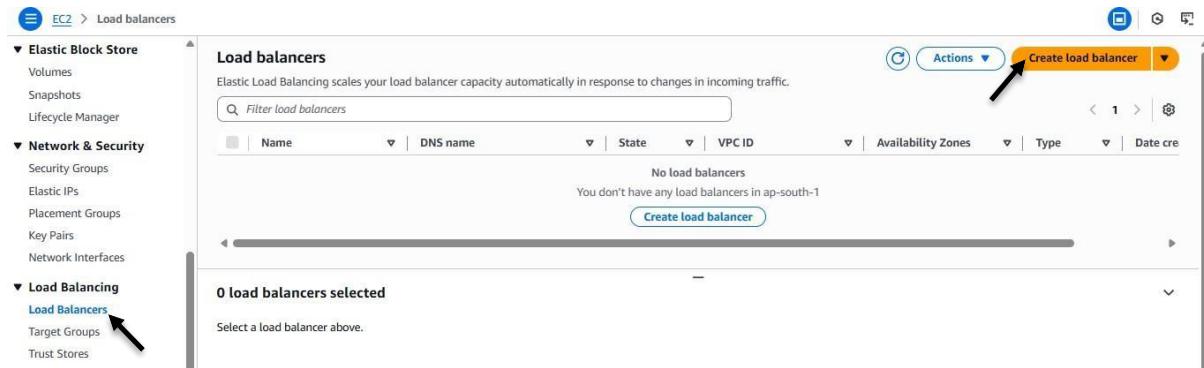
- Number of instances:** 3 (highlighted with a red arrow)
- Software Image (AMI):** Amazon Linux 2023 AMI 2023.8.2... (with a 'read more' link)
- Virtual server type (instance type):** t2.micro
- Firewall (security group):** New security group
- Storage (volumes):** 1 volume(s) - 8 GiB

At the bottom right of the summary section, there is a large orange 'Launch instance' button, which is also highlighted with a red arrow.

Step 2:

- Go to the "Load Balancing" section in the AWS Management Console and click on "Load Balancers".

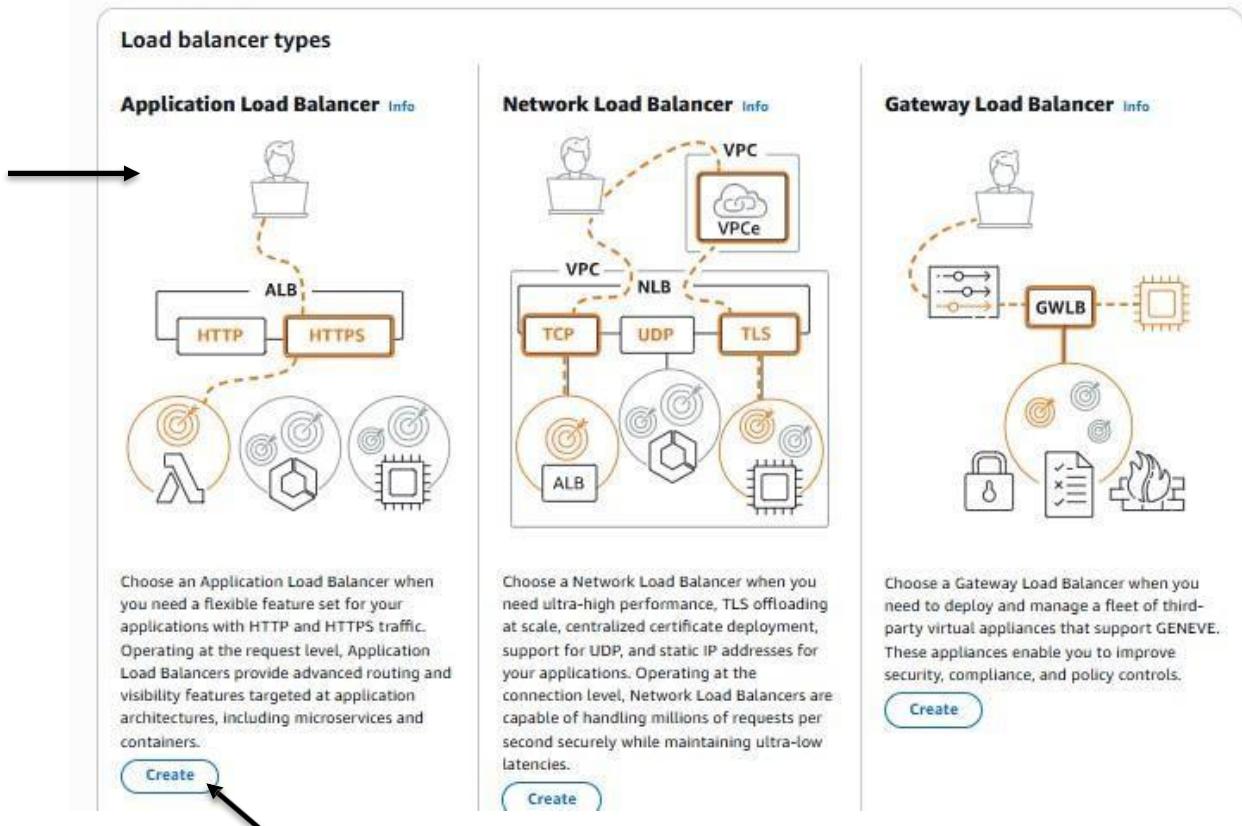
- Click on "Create Load Balancer".



- Choose the option "Application Load Balancer".
- Then click on "Create" to start the setup.

Compare and select load balancer type

A complete feature-by-feature comparison along with detailed highlights is also available. [Learn more](#)



Step 3:

- Enter the "Load Balancer Name" (e.g. "LoadBalancer1").
- Select the "Scheme" based on your requirement (e.g. "Internet-facing" if you want the load balancer to be publicly accessible).
- In the "Network Mapping" section, select all three "Availability Zones and Subnets" to ensure high availability.

Create Application Load Balancer Info

The Application Load Balancer distributes incoming HTTP and HTTPS traffic across multiple targets such as Amazon EC2 instances, microservices, and containers, based on request attributes. When the load balancer receives a connection request, it evaluates the listener rules in priority order to determine which rule to apply, and if applicable, it selects a target from the target group for the rule action.

► How Application Load Balancers work

Basic configuration

Load balancer name

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

LoadBalancer1

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.

Load balancer IP address type Info

Select the front-end IP address type to assign to the load balancer. The VPC and subnets mapped to this load balancer must include the selected IP address types. Public IPv4 addresses have an additional cost.

IPv4

Includes IPv6 and Dualstack

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. [Create a VPC](#)

-

vpc-0e88cab9b21c01e4b
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](#)

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 from the VPC's CIDR block.

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 fail over to another node if one fails.

ap-south-1a (aps1-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.

subnet-0caa2c449b9f93910
IPv4 subnet CIDR: 172.31.32.0/20

ap-south-1b (aps1-az3)

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.

subnet-00e3110f08fc2d3dd
IPv4 subnet CIDR: 172.31.0.0/20

ap-south-1c (aps1-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.

subnet-0f35191c87830d0d1
IPv4 subnet CIDR: 172.31.16.0/20

- In the "Security Groups" section, select the latest 2 to 3 groups.

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

▼

C

launch-wizard-1

sg-00766de9b58899b9b VPC: vpc-0e88cab9b21c01e4b

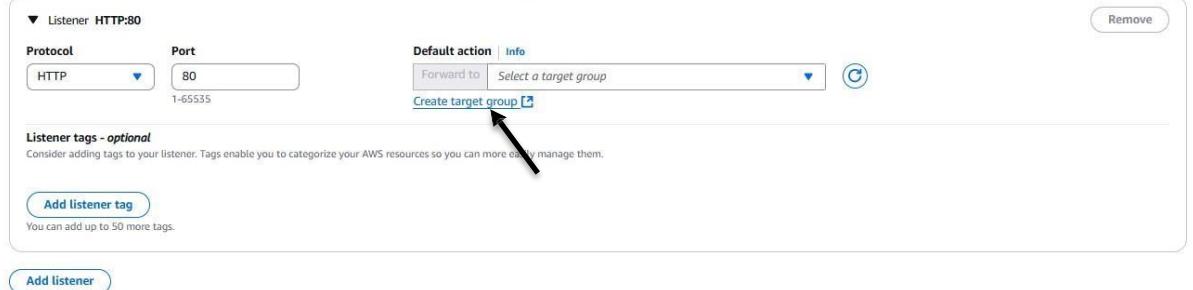
default

sg-0b9b92f40dafa226e VPC: vpc-0e88cab9b21c01e4b

- In the "Listeners and Routing" section, click on "Create Target Group".

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: **HTTP** Port: **80** 1-65535

Default action: **Forward to** **Select a target group** **Create target group**

Listener tags - optional

Consider adding tags to your listener. Tags enable you to categorize your AWS resources so you can more easily manage them.

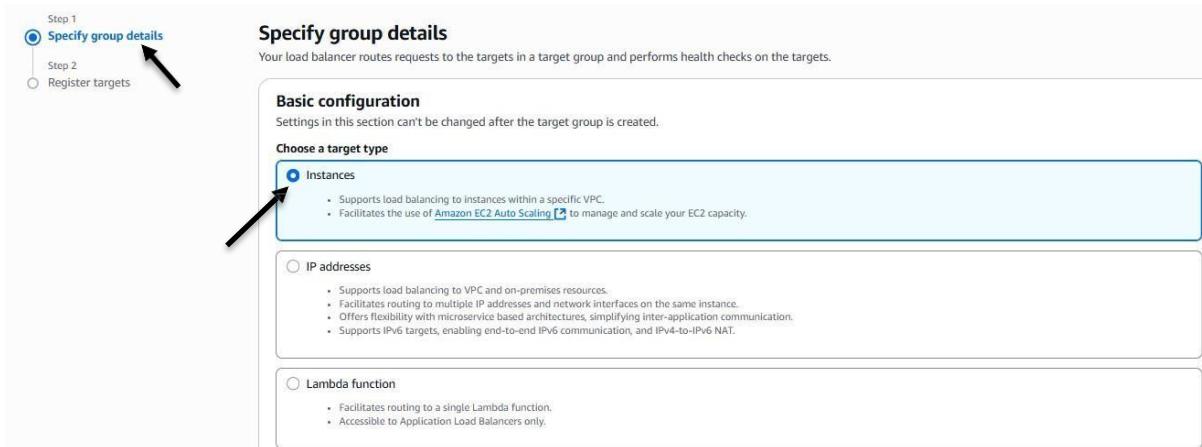
Add listener tag

You can add up to 50 more tags.

Add listener

Step 4:

- Step 1 is "Specify Group Details".
- For the "Target Type", choose "Instances".



Step 1 Specify group details

Step 2 Register targets

Specify group details

Your load balancer routes requests to the targets in a target group and performs health checks on the targets.

Basic configuration

Settings in this section can't be changed after the target group is created.

Choose a target type

Instances

- Supports load balancing to instances within a specific VPC.
- Facilitates the use of [Amazon EC2 Auto Scaling](#) to manage and scale your EC2 capacity.

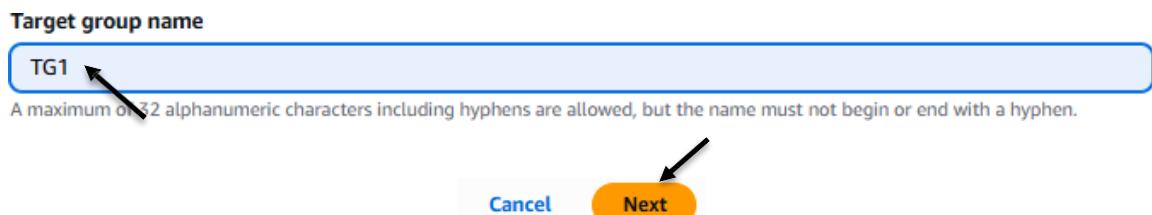
IP addresses

- Supports load balancing to VPC and on-premises resources.
- Facilitates routing to multiple IP addresses and network interfaces on the same instance.
- Offers flexibility with microservice based architectures, simplifying inter-application communication.
- Supports IPv6 targets, enabling end-to-end IPv6 communication, and IPv4-to-IPv6 NAT.

Lambda function

- Facilitates routing to a single Lambda function.
- Accessible to Application Load Balancers only.

- Enter a name in the "Target Group Name" field (e.g. "TG1").
- Leave other setting as it is.
- Click on "Next" to continue.



Target group name

TG1

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

Cancel **Next**

- In Step 2, go to "Register Target".
- Select the "Available Instances" that you want to connect with the Load Balancer.
- Click on "Include as pending below" to add the selected instances.

Step 1
Specify group details
Step 2
Register targets

Register targets

This is an optional step to create a target group. However, to ensure that your load balancer routes traffic to this target group you must register your targets.

Available instances (3/3)

Instance ID	Name	State	Security groups	Zone	Private IPv4
i-0cf6d3fd4ac896804	myserver	Running	launch-wizard-1	ap-south-1b	172.31.10.1
i-0de367252ec671a9d	myserver	Running	launch-wizard-1	ap-south-1b	172.31.9.17
i-081c06f8d7cb86a06	myserver	Running	launch-wizard-1	ap-south-1b	172.31.2.18

3 selected

Ports for the selected instances

Ports for routing traffic to the selected instances.

80
1-65535 (separate multiple ports with commas)

Include as pending below

- Then click on "Create Target Group".

Review targets

Targets (3)

Instance ID	Name	Port	State	Security groups	Zone	Private IPv4 address	Subnet ID	Launch time
i-0cf6d3fd4ac896804	myserver	80	Running	launch-wizard-1	ap-south-1b	172.31.10.10	subnet-00e3110f08fc2d3dd	July 15, 2025, 21:24 (1)
i-0de367252ec671a9d	myserver	80	Running	launch-wizard-1	ap-south-1b	172.31.9.179	subnet-00e3110f08fc2d3dd	July 15, 2025, 21:24 (1)
i-081c06f8d7cb86a06	myserver	80	Running	launch-wizard-1	ap-south-1b	172.31.2.180	subnet-00e3110f08fc2d3dd	July 15, 2025, 21:24 (1)

3 pending

Create target group

- The target group named "TG1" is now successfully created.

Target groups (1/1)

Name	ARN	Port	Protocol	Target type	Load balancer
TG1	arn:aws:elasticloadbalancin...	80	HTTP	Instance	None associa...

Step 5:

- Return to the "Listeners and Routing" section.
- Under "Default action", choose the target group you just created i.e. "TG1".

Listeners and routing

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 registered targets.

Listener HTTP:80

Protocol	Port
HTTP	80

Default action

Forward to **TG1**
Target type: Instance, IPv4

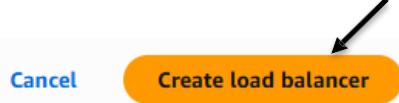
Create target

TG1
Target type: Instance, IPv4

Listener tags - optional

Consider adding tags to your listener. Tags enable you to categorize your AWS resources so

- Click on "Create Load Balancer".



- The Load Balancer is now successfully created.

Successfully created load balancer: LoadBalancer1
It might take a few minutes for your load balancer to fully set up and route traffic. Targets will also take a few minutes to complete the registration process and pass initial health checks.

LoadBalancer1

Details

Load balancer type Application	Status Provisioning	VPC vpc-0e88cab9b21c01e4b	Load balancer IP address type IPv4
Scheme Internet-facing	Hosted zone ZP97RAFLXTNZK	Availability Zones subnet-00e3110f08fc2d3dd ap-south-1b (aps1-az3) subnet-0caa2c449b9f93910 ap-south-1a (aps1-az1) subnet-0f35191c87830d0d1 ap-south-1c (aps1-az2)	Date created July 15, 2025, 22:06 (UTC+05:30)

Step 6:

- Check the state of the Load Balancer.
- If the state is "Provisioning", wait for a few seconds.
- When it changes to "Active", copy the "DNS Name" shown beside the name.

Load balancers (1/1)

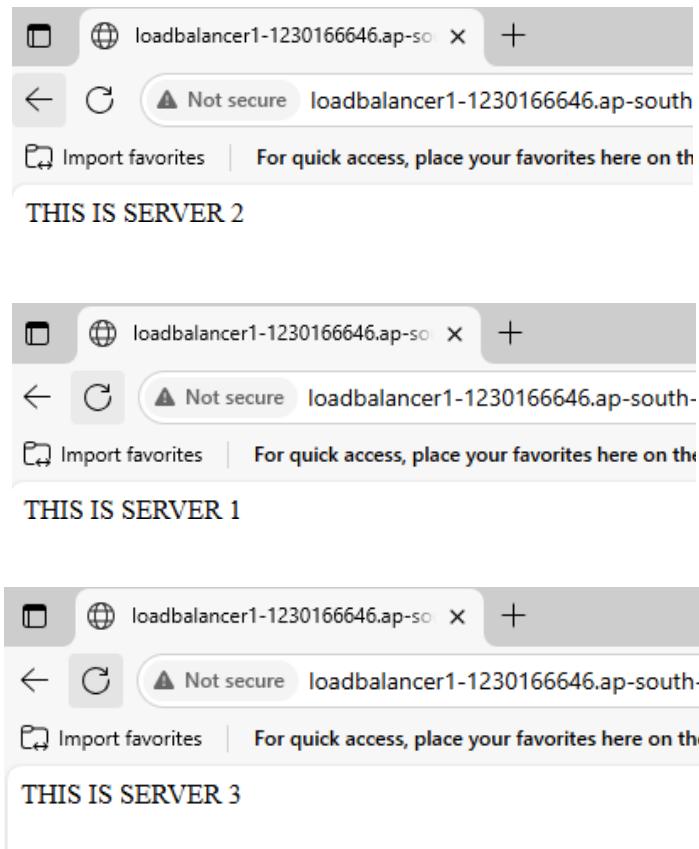
Elastic Load Balancing scales your load balancer capacity automatically in response to changes in incoming traffic.

Name	DNS name	State	VPC ID	Availability Zones	Type
LoadBalancer1	LoadBalancer1-123016664...	Active	vpc-0e88cab9b21c01e4b	3 Availability Zones	application

Load balancers

DNS name copied

- Paste the "DNS Name" into your browser and press enter.
- You will see the Load Balancer in action. It sends requests to different servers, so you might see different results depending on which server responds. This is called "Load Balancing Behavior".



Step 7:

- Now go back to the "Load Balancers" section and click on "Actions".
- Click on "Delete Load Balancer".

Load balancers (1/1)

Elastic Load Balancing scales your load balancer capacity automatically in response to changes in incoming traffic.

Filter load balancers

Name	DNS name	State	VPC ID
LoadBalancer1	LoadBalancer1-123016664...	Active	vpc-0e88cab9b2

Load balancer: LoadBalancer1

Actions

- Edit IP address type
- Edit subnets
- Manage instances
- Edit health check settings
- Manage listeners
- Edit security groups
- Edit load balancer attributes
- Manage tags
- Delete load balancer

- Enter "confirm" when asked.
- At last, click on "Delete".

Delete load balancer

X

Delete load balancer **LoadBalancer1** permanently? This action can't be undone.

⚠ Proceeding with this action deletes the load balancer and its listeners. Target groups associated to this load balancer will become available for association to another load balancer and their registered targets remain unaffected.

To avoid accidental deletion we ask you to provide additional written consent.

Type **confirm** to agree.

confirm

Cancel

Delete



- The Load Balancer is now deleted.

✓ Successfully deleted load balancer: arn:aws:elasticloadbalancing:ap-south-1:110007729643:loadbalancer/app/LoadBalancer1/486a753c19ee6801. X

Load balancers

Elastic Load Balancing scales your load balancer capacity automatically in response to changes in incoming traffic.

Filter load balancers

Actions ▾ Create load balancer ▾

Name	DNS name	State	VPC ID	Availability Zones	Type
No load balancers					

Step 8:

- Go to the "Target Group" section.
- Select the target group you want to delete.
- Go to "Actions" and click on "Delete".

Target groups (1/1) Info

Filter target groups

Name	ARN	Port
TG1	arn:aws:elasticloadbalancin...	80

Actions ▾ Create target group

Delete

Register targets

Edit health check settings

Edit target group attributes

Manage tags

Associate with a new load balancer

Associate with an existing load balancer

Load balancer

None associa

- Click on "Delete" again to confirm.

Delete target group

X

Permanently delete **1 target group**. You can't undo this action.

- TG1

i Deleting a target group deletes the group; the individual resources registered to the target group don't get deleted as a result of this action.

Cancel

Delete

- The target group is successfully deleted.

Successfully deleted target group: TG1.

Target groups		Info	Actions	Create target group
Filter target groups				
Name	ARN	Port	Protocol	Target type
No target groups				

Step 9:

- Now terminate all the instances.

Instances (3/3) Info

Last updated C less than a minute ago

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IP
myserver	i-0cf6d3fd4ac896804	Terminated	t2.micro	-	View alarms +	ap-south-1b	-
myserver	i-0de367252ec671a9d	Terminated	t2.micro	-	View alarms +	ap-south-1b	-
myserver	i-081c06f8d7cb86a06	Terminated	t2.micro	-	View alarms +	ap-south-1b	-