Name: Prashanth Raghavendra Rao
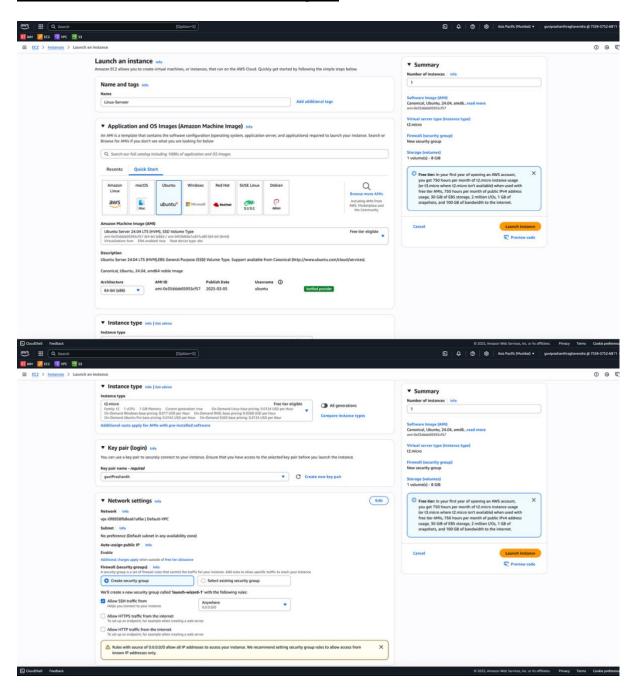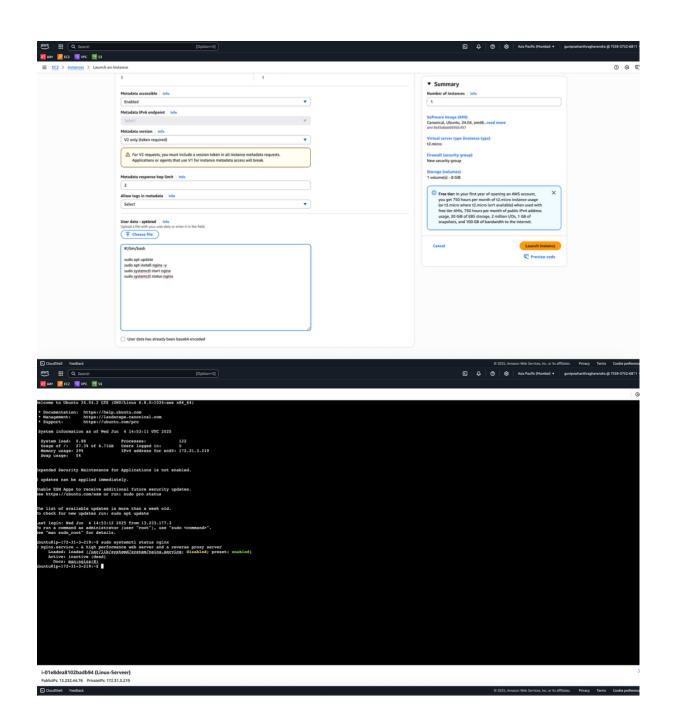
Task: AWS 4

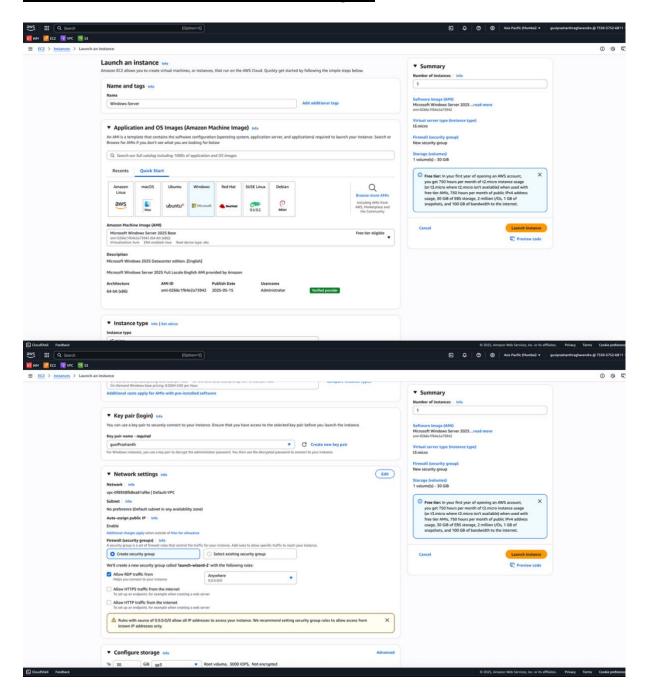**Date: 04/06/2025**

Task Description:

Launch an EC2 instance (Linux and Windows) along with a web server. Then, create an EBS volume of 5 GB, attach it to an EC2 machine (Linux and Windows), and take a snapshot. Finally, create an EBS volume using the taken snapshot.
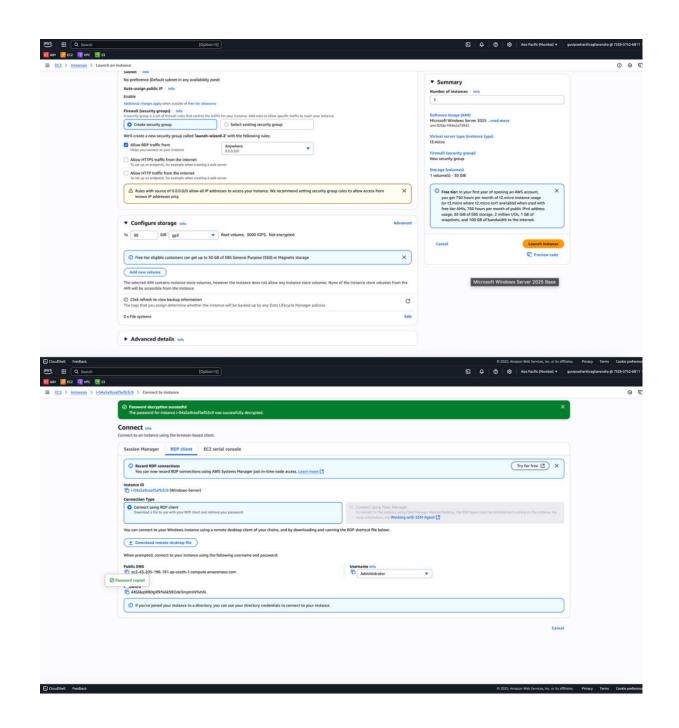
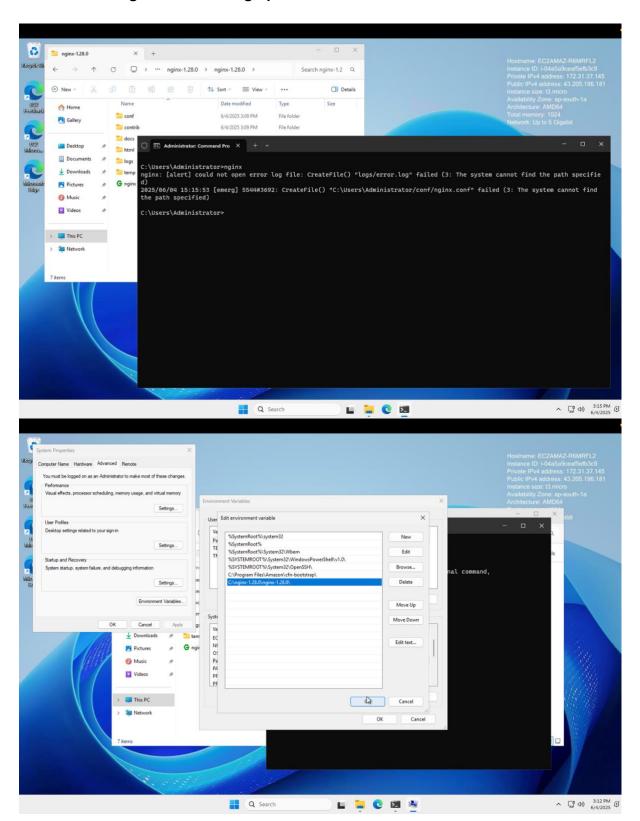***Create Instance Linux and install nginx***

1 1

Metadata accessible | Info
Enabled

Metadata IPv6 endpoint | Info
Select

Metadata version | Info
V2 only (token required)

⚠ For V2 requests, you must include a session token in all instance metadata requests.
Applications or agents that use V1 for instance metadata access will break.

Metadata response hop limit | Info
2

Allow tags in metadata | Info
Select

User data - optional | Info
Upload a file with your user data or enter it in the field.
⤒ Choose file

```
#!/bin/bash

sudo apt update
sudo apt install nginx -y
sudo systemctl start nginx
sudo systemctl status nginx
```

☐ User data has already been base64 encoded

▼ Summary

Number of instances | Info
1

Software Image (AMI)
Canonical, Ubuntu, 24.04, amd6...read more
ami-0e35ddab05955cf57

Virtual server type (instance type)
t2.micro

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

```
Welcome to Ubuntu 24.04.2 LTS (GNU/Linux 6.8.0-1024-aws x86_64)

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

 System information as of Wed Jun  4 14:53:11 UTC 2025

  System load:  0.88              Processes:             122
  Usage of /:   27.3% of 6.71GB   Users logged in:       0
  Memory usage: 29%               IPv4 address for enX0: 172.31.3.219
  Swap usage:   0%

Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

The list of available updates is more than a week old.
To check for new updates run: sudo apt update

Last login: Wed Jun  4 14:53:12 2025 from 13.233.177.3
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ubuntu@ip-172-31-3-219:~$ sudo systemctl status nginx
○ nginx.service - A high performance web server and a reverse proxy server
     Loaded: loaded (/usr/lib/systemd/system/nginx.service; disabled; preset: enabled)
     Active: inactive (dead)
       Docs: man:nginx(8)
ubuntu@ip-172-31-3-219:~$
```

i-01e8dea8102badb94 (Linux-Serveer)
PublicIPs: 13.232.44.76   PrivateIPs: 172.31.3.219

Create Instance Windows and install nginx

aws | Q Search | [Option+S] | Asia Pacific (Mumbai) ▼ | guviprashanthraghavendra @ 7559-5752-6811
IAM | EC2 | VPC | S3
☰ EC2 > Instances > Launch an instance

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-2' with the following rules:

☑ Allow RDP traffic from   Anywhere ▼
Helps you connect to your instance   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.   ✕

▼ Configure storage Info   Advanced

1x | 30 | GiB | gp3 ▼ | Root volume, 3000 IOPS, Not encrypted

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

Add new volume

The selected AMI contains instance store volumes, however the instance does not allow any instance store volumes. None of the instance store volumes from the AMI will be accessible from the instance

ⓘ Click refresh to view backup information   ↻
The tags that you assign determine whether the instance will be backed up by any Data Lifecycle Manager policies.

0 x File systems   Edit

▶ Advanced details Info

▼ Summary

Number of instances | Info
1

Software Image (AMI)
Microsoft Windows Server 2025 ...read more
ami-0266c1f64e2a73942

Virtual server type (instance type)
t3.micro

Firewall (security group)
New security group

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

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

Microsoft Windows Server 2025 Base

---

aws | Q Search | [Option+S] | Asia Pacific (Mumbai) ▼ | guviprashanthraghavendra @ 7559-5752-6811
IAM | EC2 | VPC | S3
☰ EC2 > Instances > i-04a5a9ceaf5efb3c9 > Connect to instance

⊘ **Password decryption successful**   ✕
The password for instance i-04a5a9ceaf5efb3c9 was successfully decrypted.

Connect Info
Connect to an instance using the browser-based client.

Session Manager | **RDP client** | EC2 serial console

ⓘ **Record RDP connections**   [Try for free ⧉]   ✕
You can now record RDP connections using AWS Systems Manager just-in-time node access. Learn more ⧉

Instance ID
⧉ i-04a5a9ceaf5efb3c9 (Windows-Server)

Connection Type

(●) **Connect using RDP client**   (○) Connect using Fleet Manager
Download a file to use with your RDP client and retrieve your password.   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:

⬇ **Download remote desktop file**

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

Public DNS   **Username** Info
⧉ ec2-43-205-196-181.ap-south-1.compute.amazonaws.com   ⧉ Administrator ▼

⊘ Password copied

⧉ 4XGJ&qWBOgXfk%6kS9Ode3mptnH4%hXL

ⓘ If you've joined your instance to a directory, you can use your directory credentials to connect to your instance.
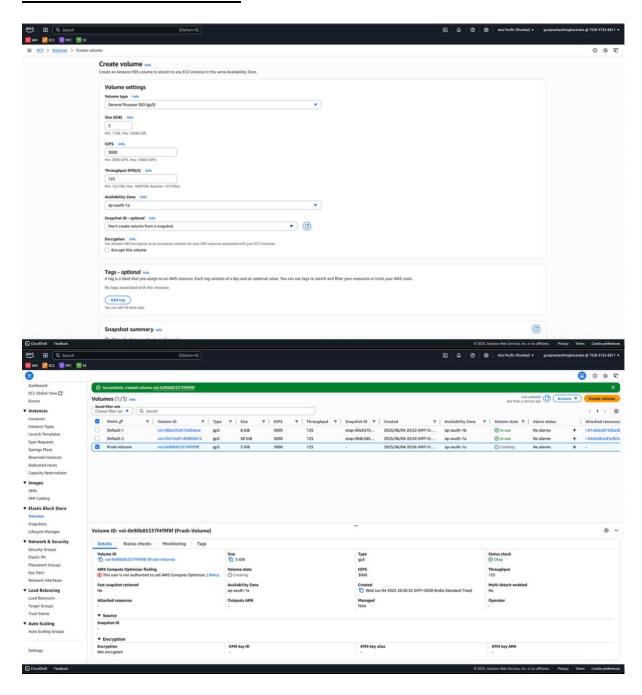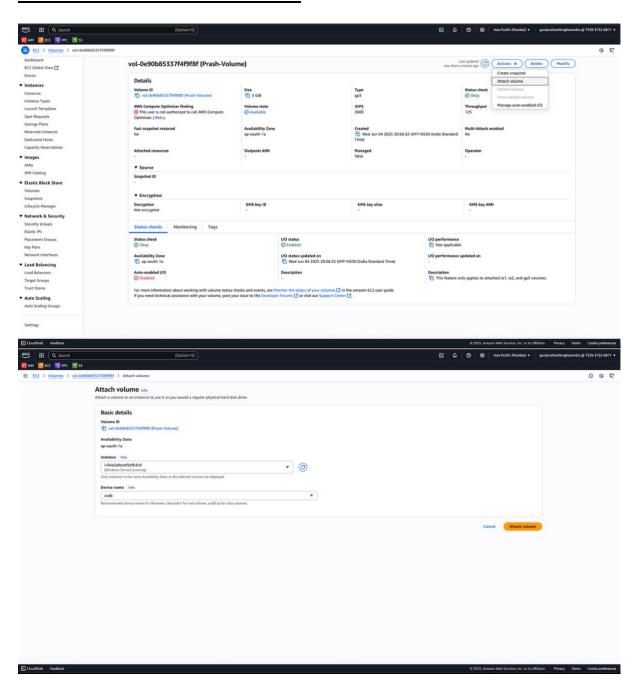
Cancel

Downloaded nginx and setting up PATH
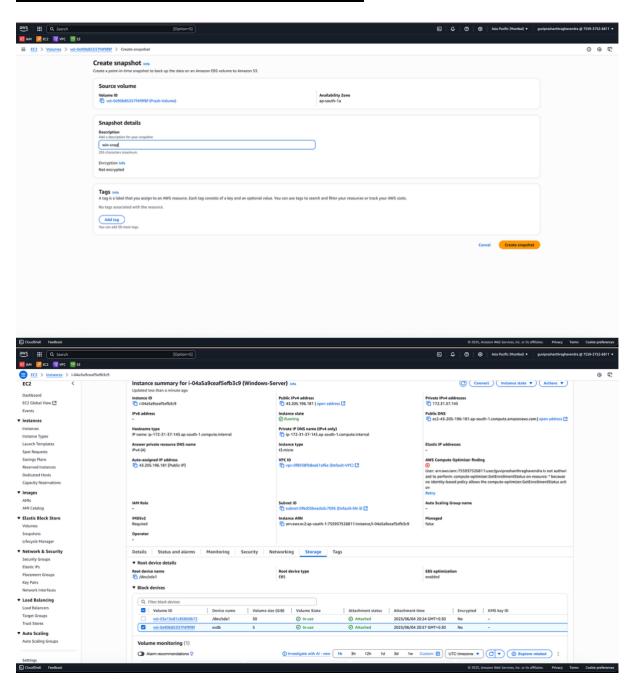
Windows Volume Creation

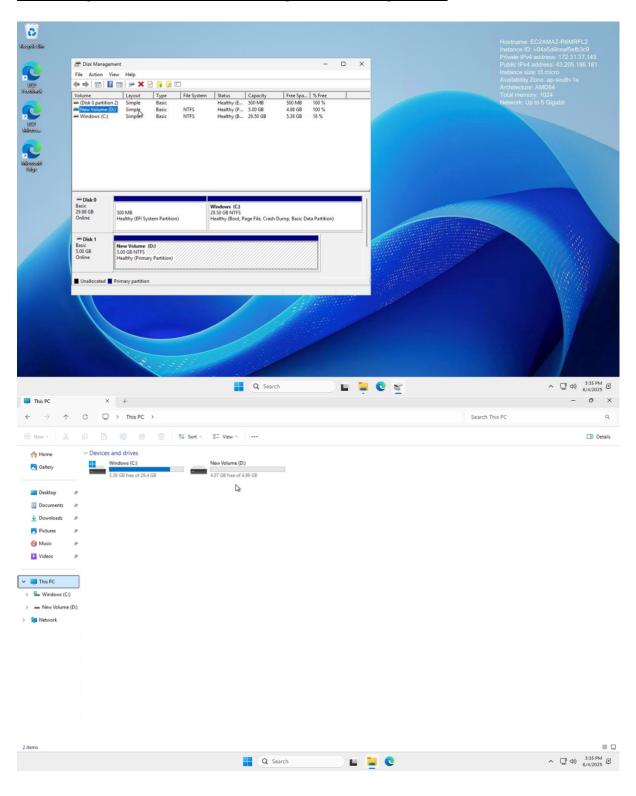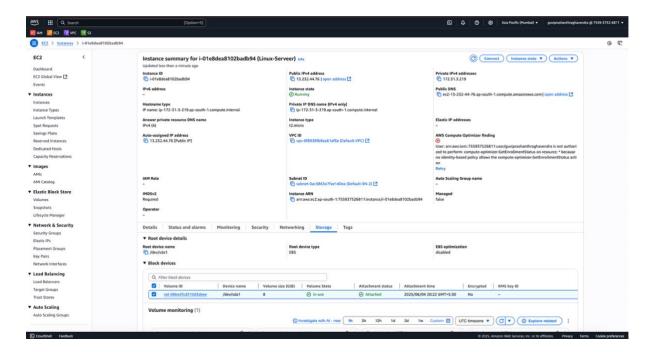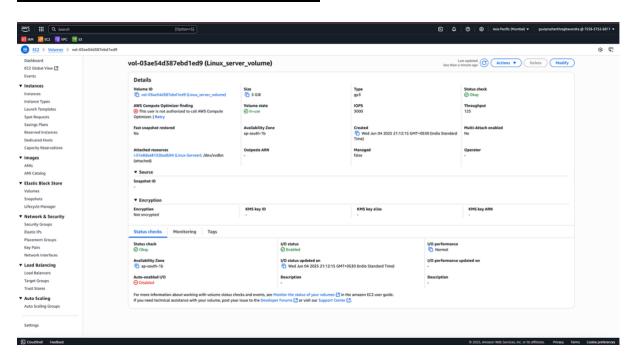# _Attach Volume to Windows Server_

Create Snapshot of EBS Windows Volume
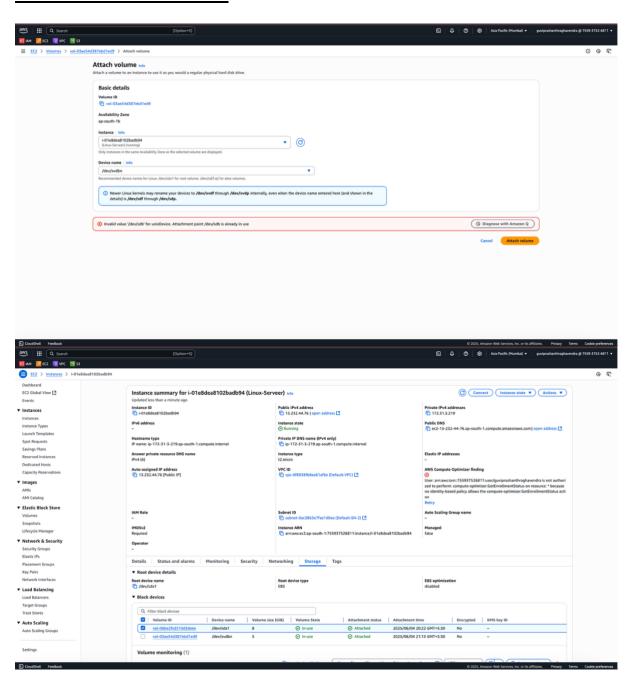
Mounting Windows Volume using Disk Management
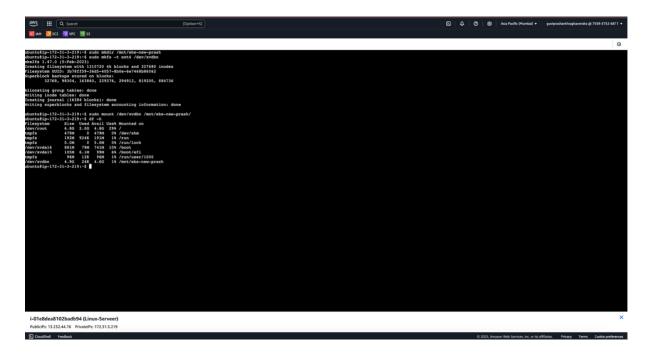
Linux Volume before Attaching 5GB Volume
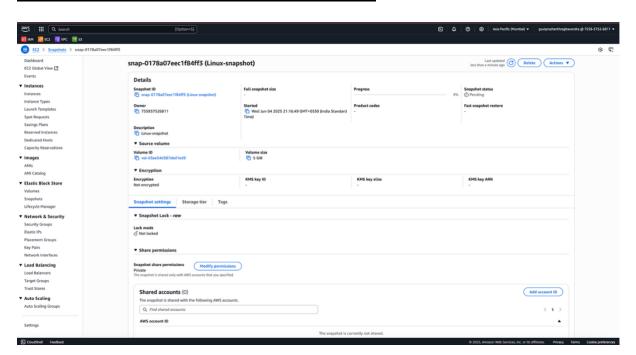

Create Linux Additional Volume 5GB

Attach Linux 5GB 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-03ae54d387ebd1ed9

Availability Zone
ap-south-1b

Instance Info

i-01e8dea8102badb94
(Linux-Server) (running)

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

Device name Info

/dev/xvdbn

Recommended device names for Linux: /dev/sda1 for root volume. /dev/sd[f-p] for data volumes.

ⓘ Newer Linux kernels may rename your devices to **/dev/xvdf** through **/dev/xvdp** internally, even when the device name entered here (and shown in the details) is **/dev/sdf** through **/dev/sdp.**

⊗ Invalid value '/dev/sdb' for unixDevice. Attachment point /dev/sdb is already in use   Ⓠ Diagnose with Amazon Q

Cancel   Attach volume

Instance summary for i-01e8dea8102badb94 (Linux-Server) Info

Updated less than a minute ago

Instance ID	Public IPv4 address	Private IPv4 addresses
i-01e8dea8102badb94	13.232.44.76 | open address	172.31.3.219

Block devices

	Volume ID	Device name	Volume size (GiB)	Volume State	Attachment status	Attachment time	Encrypted	KMS key ID
☑	vol-06be2fcd510d63deee	/dev/sda1	8	⊘ In-use	⊘ Attached	2025/06/04 20:22 GMT+5:30	No	–
☐	vol-03ae54d387ebd1ed9	/dev/xvdbn	5	⊘ In-use	⊘ Attached	2025/06/04 21:13 GMT+5:30	No	–

Volume monitoring (1)

Mounting 5GB Linux Volume

Create Snapshot of Linux 5GB EBS Volume

Attach EBS created from snapshot to Linux server