

# EBS

| **Amazon EBS = cloud hard disk for your EC2 instance.**

- You can think of it as the **C: drive or D: drive** of a computer — but in the cloud.

## Real-World Analogy:

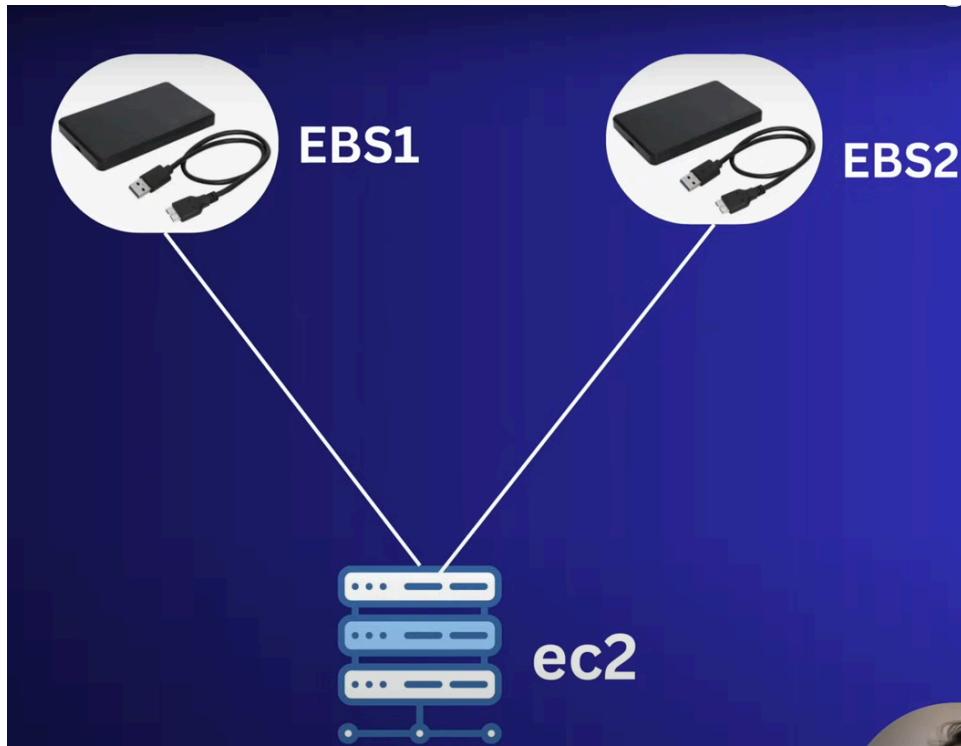
Imagine EC2 is your **cloud laptop**.

- EBS is the **hard drive** where you store files, data, code, logs, model weights, etc.
- You can **stop and start EC2** freely, and your EBS **remembers your data** just like your laptop's SSD.

Without EBS, EC2 would be **stateless** (every reboot = clean slate).

## What is EBS?

- **Network-attached storage** for EC2 instances (like an external SSD, but in the cloud).
- **Persistent**: Data stays even if you stop/restart your EC2 instance.
- **Scalable**: Resize or change volume types without downtime.



- We can attach multiple EBS to a single EC2 instance.

## ✓ Why EBS Is Used?

Use Case	Why EBS Helps
🧠 Machine Learning	Store large datasets or models that persist even if EC2 stops
📝 File Storage	Upload code, logs, CSVs, notebooks
📦 Install software	Everything on the EC2 (Ubuntu, Python, pip) sits on EBS
🔄 Stop and restart EC2	Your data and configuration persist
📁 Multiple volumes	You can attach extra EBS drives for separating data



EBS is Region & AZ specific.

## 🔑 Key Features

Feature	Why It Matters
<b>Volume Types</b>	Choose between SSD (fast) or HDD (cheap) based on your needs.
<b>Snapshots</b>	Backup your data (like a "save point" for disasters).
<b>Encryption</b>	Secure data at rest (AES-256) by default.

## 💰 EBS Pricing (Simplified)

Type	Use Case	Cost (US East, per GB/month)
<b>gp3 (SSD)</b>	Default for most workloads	\$0.08 (~₹6.60)
<b>io1 (High IOPS)</b>	Databases (e.g., MySQL)	\$0.125 (~₹10.30)
<b>st1 (HDD)</b>	Big data, logs	\$0.045 (~₹3.70)

**Note:** You pay for **allocated** space, not actual usage (e.g., a 100GB volume costs \$8/month even if only 10GB is used).

## 🔍 How EBS Works

- EBS volumes are **network-attached** block devices.
- You can:
  -  **Create** a volume (like a 50 GB disk)
  -  **Attach** it to an EC2 instance
  -  **Mount** it like a Linux partition
  -  Use it like any local folder (`/mnt/volume1`)
- You can also:
  - Take **snapshots** (backups)
  - **Detach** or delete volumes without deleting EC2
  - **Resize** disks without rebooting

# EBS Volume Types (Choose Based on Use Case)

Volume Type	Code	Use Case	Speed	Cost
General Purpose SSD	gp3	<input checked="" type="checkbox"/> Default for most cases	Fast	₹
Provisioned IOPS SSD	io1 , io2	High-performance DBs	Super fast	₹₹₹
Throughput Optimized HDD	st1	Big data & logs	Good	₹
Cold HDD	sc1	Archiving, infrequent access	Slow	₹
Magnetic (deprecated)	standard	Older type	 Avoid	Cheap

 For most beginner EC2 setups, use gp3 (default SSD).

## Where You See EBS in the AWS Console?

### When you launch an EC2 instance:

- Under the “**Storage**” section → AWS creates a default **root volume** (usually 8 or 30 GB EBS volume)
- This is where Ubuntu/Apache/Python goes

You can also:

- Add more EBS volumes during launch
- Attach more later from EC2 → **Volumes** → **Create Volume** → **Attach to instance**

### File Path of EBS in EC2

- Root volume: `/`
- Additional EBS: must be manually mounted (e.g. `/dev/xvdf` → `/mnt/data`)

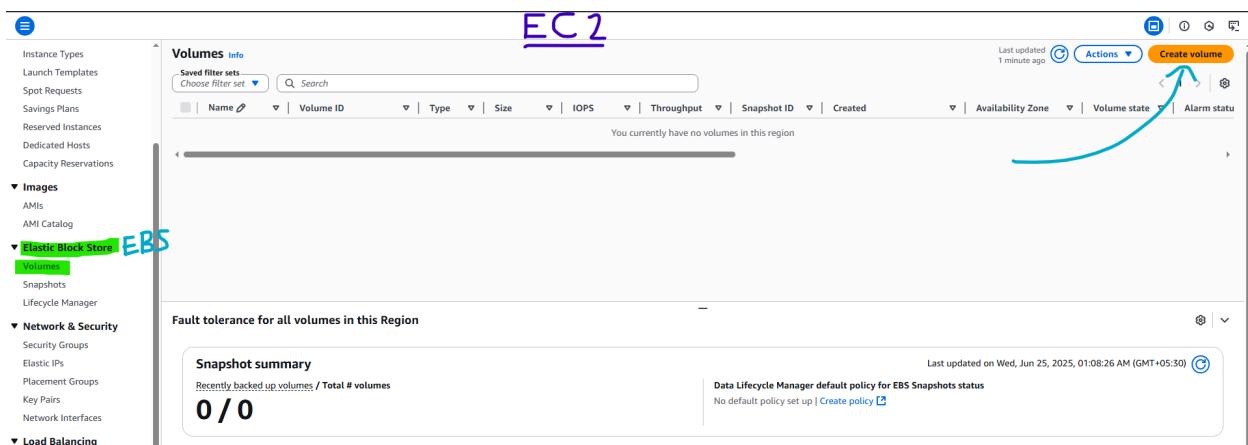
## ✗ Common Beginner Mistakes with EBS

Mistake	Fix
✗ Leaving volumes unattached	You're charged even if they're not in use — delete them manually
✗ Not deleting volumes when terminating EC2	Tick "Delete on termination" or delete manually
✗ Storing permanent data only on the root volume	Use separate EBS volume for data for easier backup & portability
✗ Not taking snapshots	Take regular backups using EBS Snapshots
✗ Confusing S3 with EBS	EBS = Disk; S3 = Object storage (bucket, not a filesystem)

## 🚀 How to Use EBS?

### 1. Create an EBS Volume

1. Go to EC2 Console → Volumes → Create Volume.



2. Select:

- **Size:** Start with 20GB (free tier eligible).
- **Type:** `gp3` (general purpose).
- **Availability Zone:** Must match your EC2 instance's zone!

**Volume settings**

Volume type | [Info](#)  
 ▾

Size (GiB) | [Info](#)  
  
 Min: 1 GiB, Max: 16384 GiB.

IOPS | [Info](#)  
  
 Min: 3000 IOPS, Max: 16000 IOPS.

Throughput (MiB/s) | [Info](#)  
  
 Min: 125 MiB, Max: 1000 MiB. Baseline: 125 MiB/s.

Availability Zone | [Info](#)  
 ▾

Snapshot ID - optional | [Info](#)  
 ▾ 

Encryption | [Info](#)  
 Use Amazon EBS encryption as an encryption solution for your EBS resources associated with your EC2 instances.  
 Encrypt this volume

## 2. Attach to an EC2 Instance

1. Right-click the volume → **Attach Volume**.
2. Select your EC2 instance and assign a device name (e.g., `/dev/sdf`).

Instances (1) <a href="#">Info</a>		Last updated 1 minute ago		Connect	Instance state ▾	Actions ▾	Launch instances	▼
		All states ▾						◀ 1 ▶
Instance state = running 								
	Name 	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zon	
<input type="checkbox"/>	mywebserver	i-09f6918f1fd970024	 Running  	t3.micro	 Initializing	 View alarms	eu-north-1b	

## 3. Format & Mount (Linux Example)

Connect to your EC2 instance via SSH and run:

```
# Check if the volume is detected  
lsblk  
  
# Format the volume (only needed once)  
sudo mkfs -t xfs /dev/nvme1n1 # Replace with your device name  
  
# Mount the volume  
sudo mkdir /data  
sudo mount /dev/nvme1n1 /data
```

Now your volume is accessible at `/mnt/data`

You can even set it to mount automatically on reboot by editing `/etc/fstab` (I)

## EBS vs EC3

Feature	EBS (Elastic Block Store)	S3 (Simple Storage Service)
Think of it as...	A <b>hard drive</b> attached to your cloud PC	A <b>locker</b> in the cloud for storing files
Tied to EC2?	<input checked="" type="checkbox"/> Yes — it's like your EC2 instance's disk	<input checked="" type="checkbox"/> No — it's independent, global access
File type	Stores files like a computer's disk (block storage)	Stores <b>objects</b> like images, CSVs, JSONs (object storage)
Access	Only from the EC2 it's attached to	From anywhere — even websites, mobile apps, Python scripts
Mountable?	<input checked="" type="checkbox"/> Yes (like <code>D:</code> or <code>/mnt/data</code> )	<input checked="" type="checkbox"/> No — you don't "mount" S3, you access via API or URL
Use for	OS, databases, software, training data for ML	Backup files, model outputs, datasets, static websites
Data persists?	<input checked="" type="checkbox"/> Yes — even after EC2 is stopped (if configured)	<input checked="" type="checkbox"/> Yes — files stay until deleted manually
Cost per GB	Higher	Lower

Feature	EBS (Elastic Block Store)	S3 (Simple Storage Service)
Example file	Jupyter notebook, ML dataset on EC2	<code>data.csv</code> , <code>model.pt</code> , <code>report.pdf</code> , <code>photo.jpg</code>

## EBS = Your Laptop's SSD or Hard Disk

- It contains your operating system, software, and local files.
- When you shut down your laptop, your disk stays with it.
- You can't pull it out and plug it into another machine (unless you know what you're doing).

## S3 = A Google Drive or Dropbox

- Upload any file.
- Access it from **any device**.
- Share it with others.
- Doesn't depend on any one machine (like EC2).

### Key traits:

- **Accessible from anywhere** (web, apps, EC2).
- **Dirt cheap** (\$0.023/GB/month).
- **Immutable**: Files can't be edited (only replaced).

## Use Cases — EBS vs S3

Task	Use EBS?	Use S3?
Install Ubuntu + Apache + Python	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Host a static website (HTML files)	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes
Store training datasets for ML	<input checked="" type="checkbox"/> Yes (if running on EC2)	<input checked="" type="checkbox"/> Yes (if accessing via Python or SageMaker)

Task	Use EBS?	Use S3?
Store logs and backups	✗ Not ideal	✓ Perfect use case
Share a PDF or image via public link	✗ Not possible	✓ Use <code>s3.Object().get()</code> or public URL
Store large media files	✗ Costly	✓ Cheaper and optimized for it
Attach a drive to EC2	✓ Yes	✗ Not possible (it's not block storage)

## Example: Store a CSV File

### Using EBS:

- You SSH into EC2
- Save it like: `/home/ec2-user/data.csv`
- Only EC2 can access it

### Using S3:

- You upload to a bucket: `my-bucket/data.csv`
- You can access it:
  - From EC2
  - From a Streamlit app
  - From a local Python script using `boto3`
  - Even from a mobile app



## Cost Difference (Very Important)

Feature	EBS	S3
Charged while idle?	✓ Yes — per GB even when EC2 is stopped	✓ Yes — but <b>cheaper per GB</b>
Minimum cost	Higher (e.g. ₹8–₹10 per GB/month)	Lower (e.g. ₹2–₹4 per GB/month)
Charges for access?	✗ No	✓ Only when you download large amounts (GET/PUT/transfer fees)



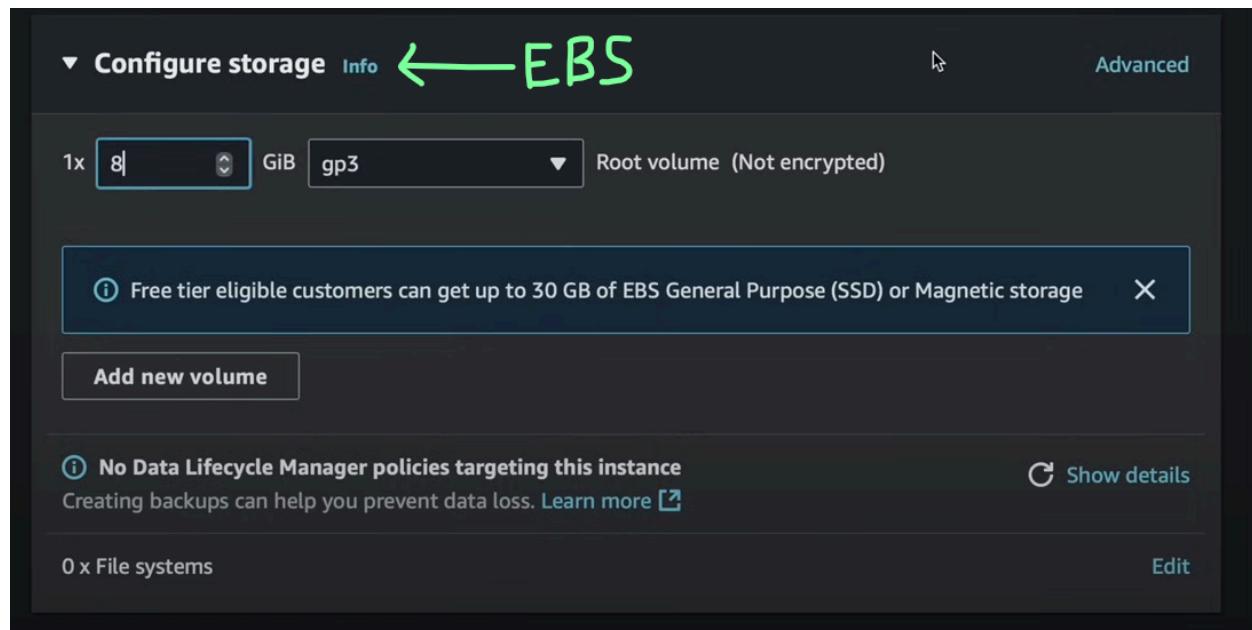
## Summary — When to Use What?

If you want to...	Use...
Store files temporarily or work with OS or installed packages	<b>EBS</b>
Save model weights, datasets, or user uploads in a central place	<b>S3</b>
Run ML training inside EC2 and save intermediate files	<b>EBS or attached volume</b>
Share files between apps, EC2s, or people	<b>S3</b>
Backup your EC2 volume	<b>EBS Snapshot or S3</b>
Use Python to upload and fetch files	<b>S3 (with <code>boto3</code>)</b>

## ✨ Practical Implementation



**EBS can be configured while creating an EC2 instance.**



Click Advance ↗

### EBS Volumes

▼ Volume 1 (AMI Root) (Custom)

Storage type   <a href="#">Info</a>	Device name - <i>required</i>   <a href="#">Info</a>	Snapshot   <a href="#">Info</a>
EBS	/dev/xvda	snap-05464a83fc500a420
Size (GiB)   <a href="#">Info</a>	Volume type   <a href="#">Info</a>	IOPS   <a href="#">Info</a>
8	gp3	3000
Delete on termination   <a href="#">Info</a>	Encrypted   <a href="#">Info</a>	KMS key   <a href="#">Info</a>
Yes	Not encrypted	Select
	Encrypted	KMS keys are only applicable when encryption is set on this volume.
	Not encrypted	
Throughput   <a href="#">Info</a>		
125		

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

[Add new volume](#)

Storage type   <a href="#">Info</a>	Device name - required   <a href="#">Info</a>	Snapshots
EBS	/dev/xvda	snap-05
Size (GiB)   <a href="#">Info</a>	Volume type   <a href="#">Info</a>	IOPS   <a href="#">Info</a>
8	gp3	3000
Delete on termination   <a href="#">Info</a>	Encrypted   <a href="#">Info</a>	KMS key
<input checked="" type="checkbox"/> Yes ✓	<input type="checkbox"/> Not encrypted	Select
KMS keys encryption		



Keep delete on termination → **Yes**

- 👉 This will delete the Volume if you delete the EC2 instance.

## Attach volume to an EC2 instance

1. Select the Volume
2. Click Actions dropdown → Attach Volume

Volumes (1/2) <a href="#">Info</a>							<a href="#">C</a>	Actions ▲	Create volume
								Modify volume	
								Create snapshot	
								Create snapshot lifecycle policy	
								Delete volume	
<input type="checkbox"/>	-	vol-09a317f5c6360b4bd	gp3	8 GiB	3000	125			
<input checked="" type="checkbox"/>	-	vol-018983a27d4f3bcdb	gp3	5 GiB	3000	125			

Volume ID: vol-018983a27d4f3bcdb

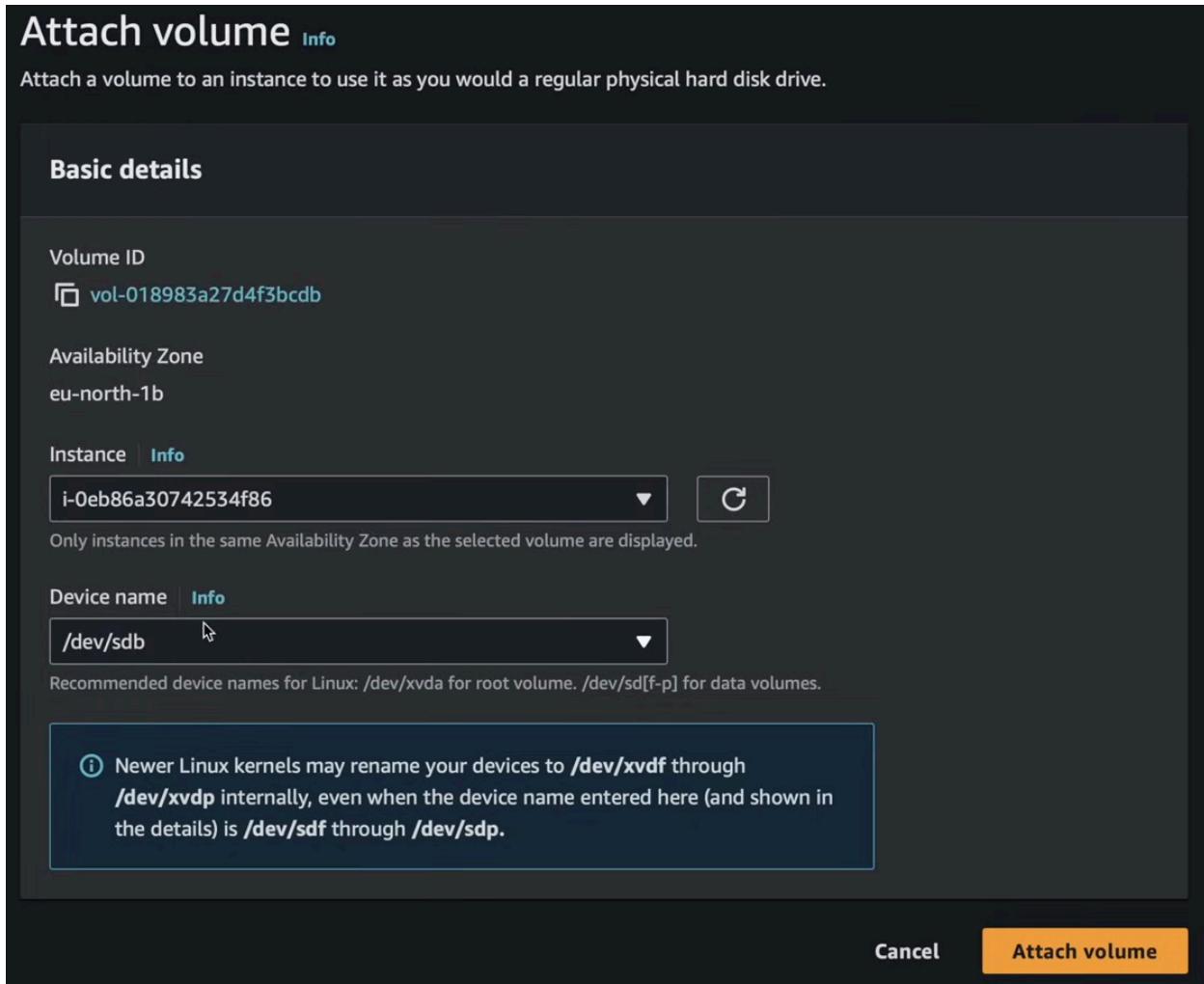
Actions ▲

- Modify volume
- Create snapshot
- Create snapshot lifecycle policy
- Delete volume
- Attach volume** (highlighted with a green arrow)
- Detach volume
- Force detach volume
- Manage auto-enabled I/O
- Manage tags
- Fault injection

Details    Status checks    Monitoring    Tags

Volume ID <a href="#">vol-018983a27d4f3bcdb</a>	Size <a href="#">5 GiB</a>	Type <a href="#">gp3</a>
--	-------------------------------	-----------------------------

### 3. Select the Instance & give Device Name



**Avoid naming conflicts: don't assign `/dev/sda1`, `/dev/xvda` (reserved for root volume)**

### What is `/dev/` in Linux?

In Linux, everything — even hardware — is treated like a **file**.

All the hardware devices are listed under the `/dev` directory.

Example	Meaning
<code>/dev/xvda</code>	Virtual hard disk A

Example	Meaning
/dev/xvdf	Virtual hard disk F
/dev/null	A black hole (data sink)
/dev/sda	SCSI disk A (common in physical systems)

## ❓ What Is /dev/xvdX ?

Name	Meaning
/dev/	Device folder in Linux
xv	Short for <b>Xen Virtual</b> device (older virtualization tech)
d	Stands for <b>disk</b>
f, g, h, etc.	Just <b>letters for naming multiple disks</b>

These are **virtual disk device names** used by AWS EC2 and Xen hypervisor.

Name	Meaning
xvda	Root volume (OS disk)
xvdf, xvdg, etc.	Additional volumes (your attached EBS)

- xv stands for **Xen Virtual Disk**
- The **last letter** ( a, b, f, g, etc.) represents **disk number**

So:

- /dev/xvda → first disk (usually the root volume)
- /dev/xvdf → second disk
- /dev/xvdg → third disk
- and so on...

✓ These are **not partitions**, but **entire volumes/disks**.

## 🧩 Why Does EC2 Say /dev/sdf But You See /dev/xvdf ?

| In EC2, if you attach a volume and type /dev/sdf in the console,

the Linux VM will see it as:



That's because:

- **EC2 automatically renames** `/dev/sdX` → `/dev/xvdX`
- It's totally normal — and safe

## ✓ Which Device Names Can I Use?

You can choose **any of these device names** when attaching EBS volumes:

`/dev/sdf` → Linux sees as `/dev/xvdf`

`/dev/sdg` → `/dev/xvdg`

`/dev/sdh` → `/dev/xvdh`

...

### Avoid:

- `/dev/xvda` → reserved for root OS
- Duplicates (you cannot attach two volumes to `/dev/xvdf`)



**Always increment the last letter to attach multiple volumes safely:**

xvdf, xvdg, xvdh, xvdi...

## Modify Volume

- Select → Actions → Modify Volume

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

Search

Name	Volume ID	Type	Size	IOPS	Throughput
-	vol-09a317f5c6360b4bd	gp3	8 GiB	3000	125
<input checked="" type="checkbox"/>	vol-018983a27d4f3bcd	gp3	5 GiB	3000	125

Volume ID: vol-018983a27d4f3bcd

Actions ▾ [Create volume](#)

- [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](#)

Details Status checks Monitoring Tags

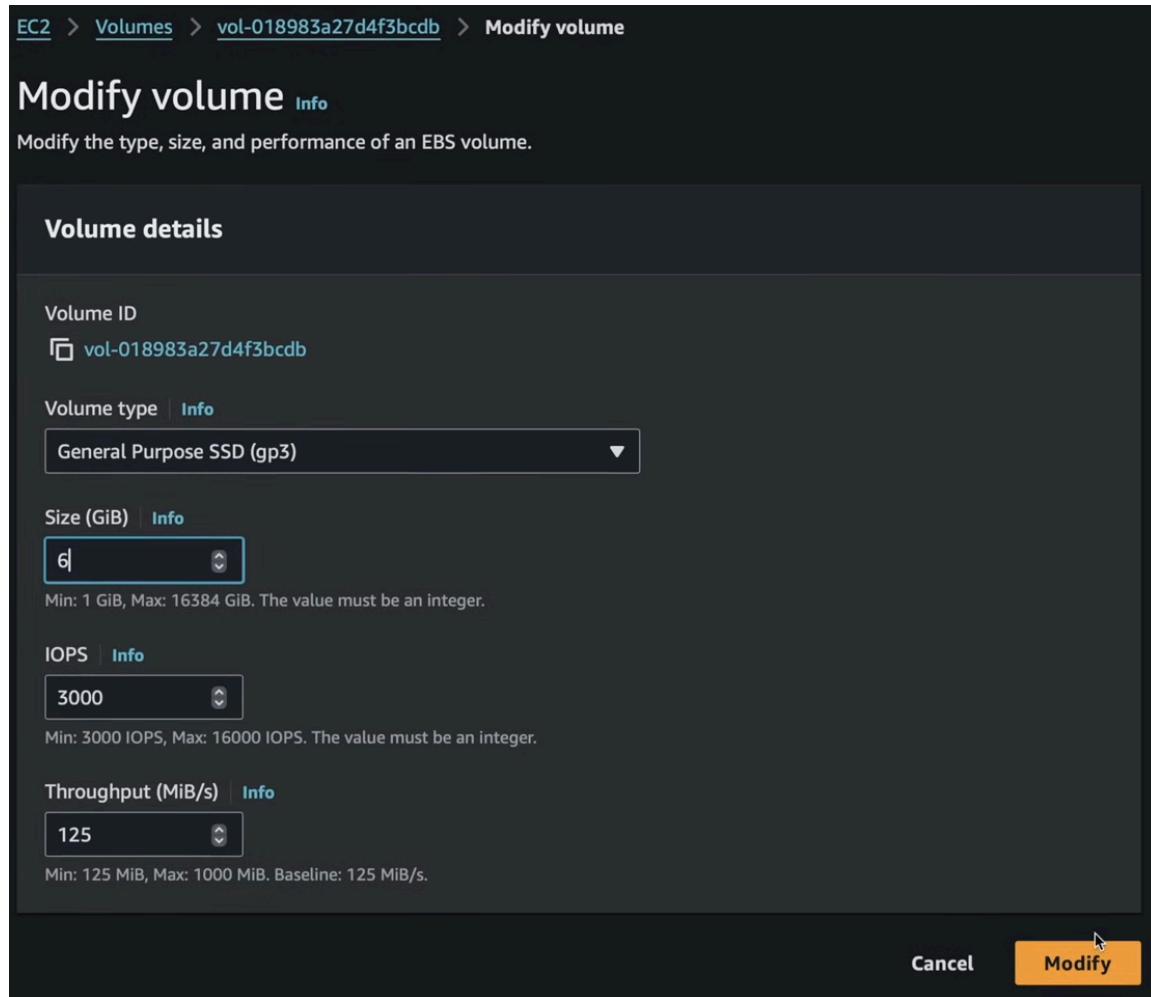


Size can only be increased.

Size (GiB) [Info](#)

4

The size of a volume can only be increased, not decreased.  
Min: 1 GiB, Max: 16384 GiB. The value must be an integer.



## Detach & Delete

- Select → Actions → Detach volume

Volumes (1/2) Info

Name	Volume ID	Type	Size	IOPS	Throughput
-	vol-09a317f5c6360b4bd	gp3	8 GiB	3000	125
<input checked="" type="checkbox"/>	vol-018983a27d4f3bcd	gp3	6 GiB	3000	125

Volume ID: vol-018983a27d4f3bcd

Details Status checks Monitoring Tags

C Actions ▾ Create volume

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

- Now the delete volume button will be available

- Select → Actions → Delete volume

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

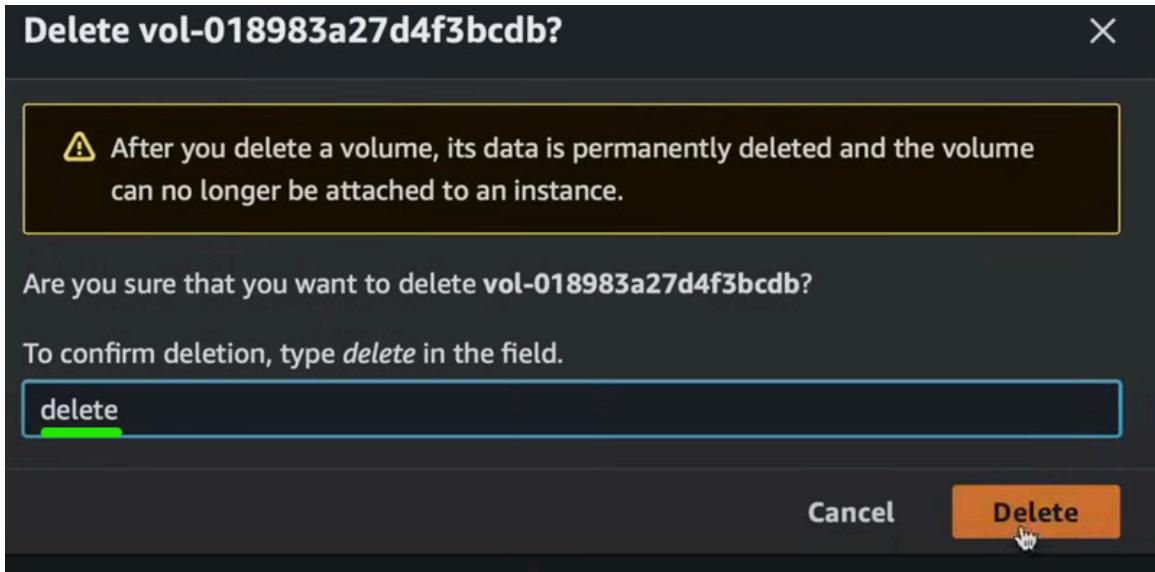
Name	Volume ID	Type	Size	IOPS	Throughput
-	vol-09a317f5c6360b4bd	gp3	8 GiB	3000	125
<input checked="" type="checkbox"/>	vol-018983a27d4f3bcd	gp3	6 GiB	3000	125

Volume ID: vol-018983a27d4f3bcd

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

**Actions ▾** [Create volume](#)

- [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](#)



## EBS Snapshot

- Select → Actions → Create snapshot

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

Name	Volume ID	Type	Size	IOPS	Throughput
<input checked="" type="checkbox"/> -	vol-09a317f5c6360b4bd	gp3	8 GiB	3000	125

Volume ID: vol-09a317f5c6360b4bd

Actions ▾ [Create volume](#)

- [Modify volume](#)
- [Create snapshot](#)
- [Create snapshot lifecycle policy](#)
- [Delete volume](#)
- [Attach volume](#)
- [Detach volume](#)
- [Force detach volume](#)
- [Manage auto-enabled I/O](#)
- [Manage tags](#)

**Source volume**

Volume ID <input type="text" value="vol-09a317f5c6360b4bd"/>	Availability Zone eu-north-1b
---	----------------------------------

**Snapshot details**

Description  
Add a description for your snapshot  
  
255 characters maximum.

Encryption [Info](#)  
Not encrypted

**Tags [Info](#)**  
A tag is a label that you assign to an AWS resource. Each tag consists of a key and an optional value. You can use tags to search and filter your resources or track your AWS costs.

No tags associated with the resource.  
[Add tag](#)  
You can add 50 more tags.

[Cancel](#) [Create snapshot](#)

## Create Volume from snapshot:

- Go to snapshot
- Select snapshot → Actions → Create volume from snapshot

Snapshots (1/1) info

Owned by me ▾ Search

Name	Snapshot ID	Volume size	Description	Status
-	snap-08186ae988b363ff0	8 GiB	Test snapshot	Completed

Actions ▾ Create snapshot

- Create volume from snapshot
- Create image from snapshot
- Copy snapshot
- Delete snapshot
- Manage tags
- Snapshot settings ▾
- Archiving ▾

EC2 Dashboard X

EC2 Global View

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Lifecycle Manager

## Volume settings

Snapshot ID

.snap-08186ae988b363ff0

Volume type | [Info](#)

General Purpose SSD (gp3)

Size (GiB) | [Info](#)

8

Min: 1 GiB, Max: 16384 GiB. The value must be an integer.

IOPS | [Info](#)

3000

Min: 3000 IOPS, Max: 16000 IOPS. The value must be an integer.

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

125

Min: 125 MiB, Max: 1000 MiB. Baseline: 125 MiB/s.

Availability Zone | [Info](#)

eu-north-1a

You can change this

Fast snapshot restore | [Info](#)

Throughput	Snapshot ID	Created	Availability Zone	Volume state	Alarm status
125	snap-08186ae...	2024/10/15 22:03 GMT+3	eu-north-1c	Available	No alarms
125	snap-05464a8...	2024/10/15 21:20 GMT+3	eu-north-1b	In-use	No alarms

Now attach the newly created Volume in **1c** to an EC2 instance in **1c**

- **Launch Instance**

**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  
ec2-backup 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

Recents
Quick Start

Amazon Linux  

macOS  

Ubuntu  

Windows  

Red Hat  

SUSE Linux  

Debian  


**Amazon Machine Image (AMI)**

Amazon Linux 2023 kernel-6.1 AMI  
ami-0b09627181cd5778 (64-bit (x86), uefi-preferred) / ami-0f4448044b7b1e09b (64-bit (Arm), uefi)  
Virtualization: hvm ENA enabled: true Root device type: ebs

Free tier eligible ▼

Description

**Edit Network settings** to change the zone

▼ Network settings [Info](#)

**Network** | [Info](#)  
vpc-00b37b263ec88a26c

**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 SSH 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

- Select **1c** from dropdown in **subnets**

▼ Network settings [Info](#)

**VPC - required** | [Info](#)  
vpc-00b37b263ec88a26c (default) ▾

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

No preference

Create new subnet [\[+\]](#)

<input type="checkbox"/> No preference	✓
subnet-03f234aba3008d988	Availability Zone: ap-south-1b
VPC: vpc-00b37b263ec88a26c	Owner: 537976613696
IP addresses available: 4091	CIDR: 172.31.0.0/20
subnet-0fc062d96c69553ad	Availability Zone: ap-south-1a
VPC: vpc-00b37b263ec88a26c	Owner: 537976613696
IP addresses available: 4091	CIDR: 172.31.32.0/20
subnet-0ffc6a003f91ebcce	Availability Zone: ap-south-1c ✓
VPC: vpc-00b37b263ec88a26c	Owner: 537976613696
IP addresses available: 4091	CIDR: 172.31.16.0/20

This security group will be added to all network interfaces. The name can't be edited after the security group is created. Max length is 255 characters. Valid characters: a-z, A-Z, 0-9, spaces, and \_-:/()#@[]+=;&{}!\$\*

## Attach backup to newly created instance

- Select → Actions → Attach volume

Volumes (1/3) [Info](#)

Search

	Name	Volume ID	Type	Size	IOPS	Throughput	Actions	Create volume
<input checked="" type="checkbox"/>	-	vol-0a40105e65a564165	gp3	8 GiB	3000	125		<a href="#">Modify volume</a>
<input type="checkbox"/>	-	vol-09a317f5c6360b4bd	gp3	8 GiB	3000	125		<a href="#">Create snapshot</a>
<input type="checkbox"/>	-	vol-0ea6440d6b009df13	gp3	8 GiB	3000	125		<a href="#">Create snapshot lifecycle policy</a>

[Delete volume](#)

[Attach volume](#)

[Detach volume](#)

[Force detach volume](#)

[Manage auto-enabled I/O](#)

[Manage tags](#)

## 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-0a40105e65a564165

#### Availability Zone

eu-north-1c

#### Instance [Info](#)

Search instance ID or name tag



i-0755d676aadfa9774

(ec2-backup) (running)

[Select a device name](#)



Cancel

Attach volume



Only **1c** instance will be available.

## Copy Snapshot to another region

The screenshot shows the AWS EBS Snapshots page. A context menu is open over a selected snapshot named "snap-08186ae988b363ff0". The menu items include: Create volume from snapshot, Create image from snapshot, Copy snapshot (which is highlighted with a green arrow), Delete snapshot, Manage tags, Snapshot settings, and Archiving.

Name	Snapshot ID	Volume size	Description	Status
Test snapshot	snap-08186ae988b363ff0	8 GiB		

The screenshot shows the "Snapshot copy details" configuration dialog. It includes fields for Description (containing "[Copied snap-08186ae988b363ff0 from eu-north-1] Test snapshot"), Destination Region (set to "ap-south-1"), Encryption (with an "Encrypt this snapshot" checkbox), and Tags - optional (with an "Add tag" button). At the bottom are "Cancel" and "Copy snapshot" buttons.

## Amazon Data Lifecycle Manager

- Useful to take auto-backup

**Amazon Data Lifecycle Manager**

Automate the creation, retention, copy and deletion of snapshots and AMIs

Amazon Data Lifecycle Manager provides a simple, automated way to back up data stored on Amazon EBS volumes.

**Create new lifecycle policy**

Create custom or default policy

Custom policy

Default policy

Policy type

EBS snapshot policy

**Next step**

**Benefits and features**

- Automated snapshot and AMI creation**
- Fast snapshot restore integration**
- Built-in cross-Region copy**
- Automated cross-account snapshot copy**

**Pricing**

There is no charge for using Amazon Data Lifecycle Manager. You incur storage costs for snapshots that are created and copied by your policies, and you are charged for optional features, such as fast snapshot restore, that you use.

**Getting started**

What is Data Lifecycle Manager?

- It's free

**Target resource types**

Select the type of resources that are to be targeted.

Volume

Instance

**Target resource tags**

All resources of the selected type that have at least one of these tags will be targeted by the policy.

Enter a key

Enter a value

Add

45 tags remaining of 45.

- You can get key & value by adding volume → tags

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

<input checked="" type="checkbox"/>	Name	Volume ID	Type	Size	IOPS	Throughput
<input checked="" type="checkbox"/>	-	vol-09a317f5c6360b4bd	gp3	8 GiB	3000	125

**Volume ID: vol-09a317f5c6360b4bd**

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

**Tags**

Filter tags

Key	Value
-----	-------

The selected resource currently has no tags.

[Manage tags](#)

**Manage tags [Info](#)**

A tag is a label that you assign to an AWS resource. Each tag consists of a key and an optional value. You can use tags to search and filter your resources or track your AWS costs.

Key	Value - optional
<input type="text"/> ENV	<input type="text"/> TEST

[Add tag](#)

You can add 49 more tags.

[Cancel](#) [Save](#)

Add the key & value in Life cycle manager

**Target resources** Info

Specify the resources that are to be targeted by this policy.

**Target resource types**  
Select the type of resources that are to be targeted.

Volume  
 Instance

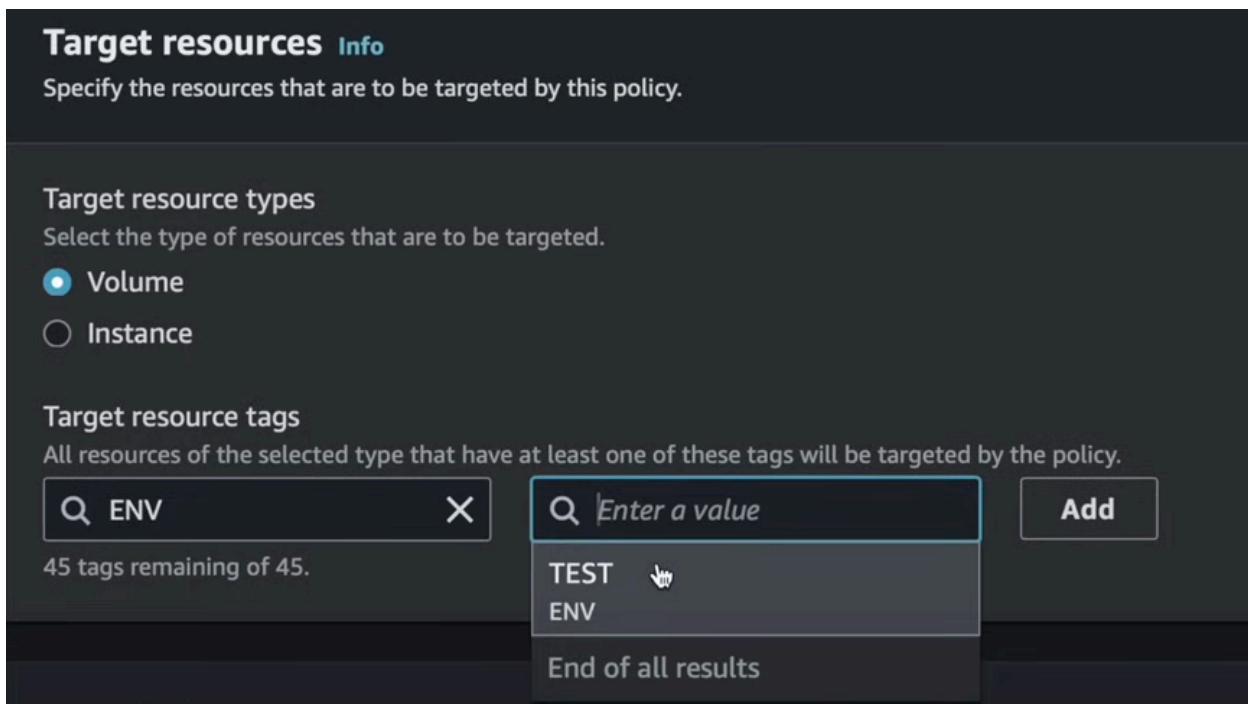
**Target resource tags**  
All resources of the selected type that have at least one of these tags will be targeted by the policy.

Q ENV X      Q Enter a value Add

45 tags remaining of 45.

TEST   
ENV

End of all results

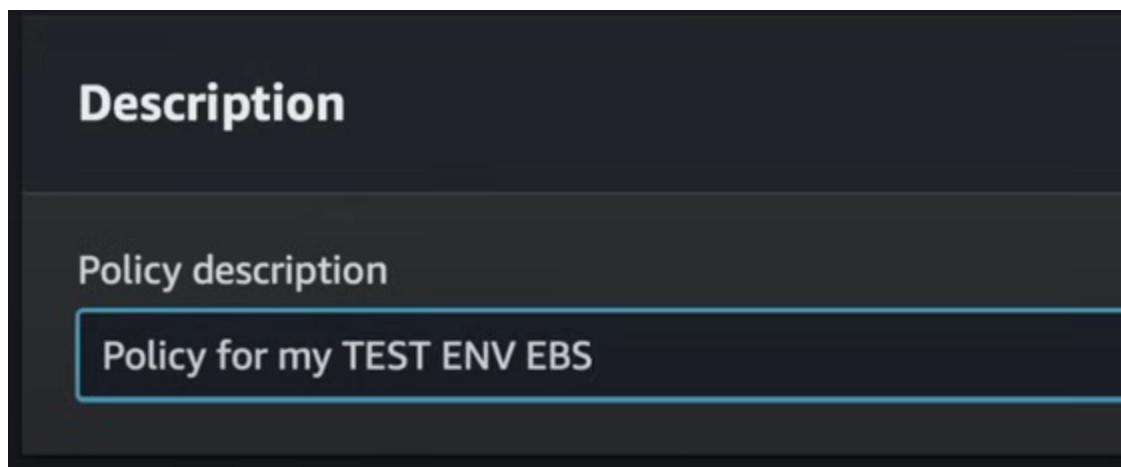


**Add description:**

Description

Policy description

Policy for my TEST ENV EBS



Keep everything default → Next

**Schedule details** [Info](#)

[Remove schedule](#) [Add another schedule](#)

You can add 3 more schedules to this policy.

**Schedule name**

Schedule 1

**Frequency**

Daily ▾

Every

12 hours ▾

Starting at

09:00 UTC

Retention type

Keep

Count ▾

snapshots in standard tier

**Advanced settings - optional**

▶ **Tagging** [Info](#)

Specify the tags that are to be applied to snapshots created by this schedule. These tags are not applied to cross-Region copies created by the schedule.

- **Next**

Step 2: Schedule 1 configuration

**Schedule details**

Schedule name	Frequency
Schedule 1	Every 12 hour(s) starting at 09:00
Retention in standard tier	
10 days after creation	

**Advanced settings**

▼ Cross-Region copy: Region 1

Target Region	Copy retention
eu-north-1	1 DAYS after creation
Encrypted	KMS key
True	arn:aws:kms:eu-north-1:471112616728:alias/aws/ebs
Copy tags from source	
True	

**Buttons:** Cancel, Previous, Create policy

## Recycle Bin

- Recovers the deleted snapshot

The screenshot shows the AWS EBS Snapshots page. At the top left, there is a green circle highlighting the "Snapshots" tab. At the top right, there is a green arrow pointing to the "Recycle Bin" button, which is located in the top right corner of the page. The main content area displays a message: "You currently have no snapshots in this Region."