

1. Create a EBS Volume

The screenshot shows the AWS Management Console with the EC2 service selected. The left sidebar includes options for Dedicated Hosts, Capacity Reservations, Images (AMIs, AMI Catalog), Elastic Block Store (Volumes, Snapshots, Lifecycle Manager), Network & Security (Security Groups, Elastic IPs, Placement Groups, Key Pairs, Network Interfaces), and Load Balancing (Load Balancers). The main pane displays 'Instances (1/2) info' for two instances: 'Ami_from_instance_created' (running, t2.micro, status Initializing) and 'feb24' (stopped, t2.micro). Below the instances, the details for 'Ami_from_instance_created' are shown, including the root device name (/dev/xvda), root device type (EBS), and EBS optimization (disabled). A table lists the attached block devices, showing one volume (vol-030df390eebd9f08f) attached to /dev/xvda with a size of 8 GiB, status Attached, and attachment time of 2024/03/28 21:04 GMT+5:30.

2. Creating Volume

The screenshot shows the 'Create volume' wizard. Step 1: Volume settings. It asks to create an Amazon EBS volume to attach to any EC2 instance in the same Availability Zone. The volume type is set to 'General Purpose SSD (gp3)'. The size is set to 5 GiB, and the IOPS are set to 3000. A note indicates that gp3 is the default selection and provides up to 20% lower cost per GB than gp2. The wizard also includes sections for Encryption, Tags, and Snapshot summary, which are partially visible on the right.

The screenshot shows the continuation of the 'Create volume' wizard. Step 2: Encryption. It asks if the user wants to use Amazon EBS encryption as an encryption solution for their EBS resources associated with their EC2 instances. Step 3: Tags - optional. It asks if the user wants to add tags to the volume. Both steps include notes and checkboxes for 'Encrypt this volume' and 'Add tag'.

3. Attach Volume

The screenshot shows the AWS EC2 Dashboard with the 'Volumes' section selected. A context menu is open over a specific volume entry, with 'Attach volume' highlighted. The main table lists three volumes: vol-09670165a90f188e8 (gp2, 8 GiB, 100 IOPS), vol-030df390eebd908f (gp3, 8 GiB, 3000 IOPS, 125 throughput), and vol-05a187b304b30a3e9 (gp3, 5 GiB, 3000 IOPS, 125 throughput). The volume vol-05a187b304b30a3e9 is selected.

The screenshot shows the 'Attach volume' wizard. The first step, 'Basic details', is displayed. It asks for a custom device name, which is set to '/dev/vdf'. Other fields include 'Volume ID' (vol-05a187b304b30a3e9), 'Availability Zone' (us-east-1f), and 'Instance' (i-025ac80df5fb7938). A note at the bottom states: 'Never Linux kernels may rename your devices to /dev/vd* through /dev/vdp internally, even when the device name entered here (and shown in the details) is /dev/vd* through /dev/sd*.'

The screenshot shows two side-by-side AWS EC2 pages. On the left, the 'Volumes' page displays a success message: 'Successfully attached volume vol-05a187b304b30a3e9 to instance i-025ac80df5fb7938.' The main table shows the attached volume. On the right, the 'Instances' page shows the instance i-025ac80df5fb7938 (Ami_from_instance_created) running. The 'Block devices' table shows the attached volume vol-05a187b304b30a3e9 with device /dev/vda and status Attached.

4. Connect to local host

The screenshot shows the AWS EC2 Instances Connect interface. At the top, it says "EC2 > Instances > i-025ac80df5f1b7938 > Connect to instance". Below this, there's a section titled "Connect to instance" with a "Info" link. It says "Connect to your instance i-025ac80df5f1b7938 (Ami_from_instance_created) using any of these options". There are three tabs: "EC2 Instance Connect", "Session Manager", and "SSH client" (which is selected). Below the tabs, it says "Instance ID: i-025ac80df5f1b7938 (Ami_from_instance_created)". A numbered list of steps follows:

1. Open an SSH client.
2. Locate your private key file. The key used to launch this instance is Ami.pem
3. Run this command, if necessary, to ensure your key is not publicly viewable.
chmod 400 "Ami.pem"
4. Connect to your instance using its Public IP:
3.236.235.183

Below this, there's an "Example:" section with a command: ssh -i "Ami.pem" root@3.236.235.183. A note at the bottom says: "Note: In most cases, the guessed username is correct. However, read your AMI usage instructions to check if the AMI owner has changed the default AMI username."

At the bottom of the interface, there are links for "CloudShell", "Feedback", "Privacy", "Terms", and "Cookie preferences".

Connected ec2 instances

The terminal window title is "ec2-user@ip-10-180-0-203~". The user is connected to an Amazon Linux 2023 instance. The terminal shows the following output:

```
DELL LAPTOP0DESKTOP-3O3S130 MINGW64 ~/Desktop/New folder (new_branch)
$ ssh -i "Ami.pem" ec2-user@3.236.235.183
The authenticity of host '3.236.235.183 (3.236.235.183)' can't be established.
ED25519 key fingerprint is SHA256:VUKV1n8RMj09z1g2vYTBmi+u9xTWM/GPm58FdgoK.
This host key is known by the following other names/addresses:
- .ssh/known_hosts:6 (230.143.187)
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
warning: Permanently added '3.236.235.183' (ED25519) to the list of known hosts.

Amazon Linux 2023
https://aws.amazon.com/linux/amazon-linux-2023

Last Login: Thu Mar 28 15:36:54 2024 from 157.50.31.84
[ec2-user@ip-10-180-0-203 ~]$ ls
[ec2-user@ip-10-180-0-203 ~]$ mkdir file1
[ec2-user@ip-10-180-0-203 ~]$ |
```

check list of blocks(lblk), df -TH

```
[ec2-user@ip-10-180-0-203 ~]$ ls
[ec2-user@ip-10-180-0-203 ~]$ mkdir file1
[ec2-user@ip-10-180-0-203 ~]$ lsblk
[bash: $'\302\231lsblk': command not found
[ec2-user@ip-10-180-0-203 ~]$ lsblk
NAME      MAJ:MIN RM  SIZE RO TYPE MOUNTPOINTS
xvda     202:0    0   8G  0 disk
└─xvda1   202:1    0   8G  0 part /
xvda127  259:0    0   1M  0 part
└─xvda128 259:1    0  10M  0 part /boot/efi
xvdf     202:80   0   5G  0 disk
[ec2-user@ip-10-180-0-203 ~]$ df -TH
Filesystem  Type      Size  Used Avail Use% Mounted on
/dev/xvdf   devtmpfs  4.2M   0M  4.2M  0% /dev
tmpfs       tmpfs     498M   0  498M  0% /dev/shm
tmpfs       tmpfs    200M  3.0M 197M  2% /run
/dev/xvda1  xfs      8.6G  2.3G 6.3G  27% /
tmpfs       tmpfs    498M   0  498M  0% /tmp
/dev/xvda128 vfat     11M  1.4M  9.2M  13% /boot/efi
tmpfs       tmpfs   100M   0  100M  0% /run/user/1000
[ec2-user@ip-10-180-0-203 ~]$ |
```

Cleanup HDD(Hard disk drive)

```
[ec2-user@ip-10-180-0-203 ~]$ mkfs -t ext4 /dev/xvdf
mke2fs 1.46.5 (30-Dec-2021)
mkfs.ext4: Permission denied while trying to determine filesystem size
[ec2-user@ip-10-180-0-203 ~]$ sudo mkfs -t ext4 /dev/xvdf
mke2fs 1.46.5 (30-Dec-2021)
Creating filesystem with 1310720 4k blocks and 327680 inodes
Filesystem UUID: 306e672f-a3b3-437d-9cff-1d1680dcbe32
Superblock backups stored on blocks:
      32768, 98304, 163840, 229376, 294912, 819200, 884736

Allocating group tables: done
Writing inode tables: done
Creating journal (16384 blocks): done
Writing superblocks and filesystem accounting information: done
[ec2-user@ip-10-180-0-203 ~]$ |
```

Create a folder in root

The terminal window title is "root@ip-10-180-0-203:/". The user is root and is creating a folder named "mydisk" in the root directory. The terminal shows the following output:

```
[ec2-user@ip-10-180-0-203 ~]$ cd /
[ec2-user@ip-10-180-0-203 ~]$ lsblk
[bash: dev: command not found
[ec2-user@ip-10-180-0-203 ~]$ lsblk
[ec2-user@ip-10-180-0-203 ~]$ sudo mkdir /root/mydisk
[ec2-user@ip-10-180-0-203 ~]$ ls
[ec2-user@ip-10-180-0-203 ~]$ cd root
[ec2-user@ip-10-180-0-203 ~]$ ls
mydisk
[ec2-user@ip-10-180-0-203 ~]$ mount /dev/xvdf /mnt/mydisk
[ec2-user@ip-10-180-0-203 ~]$ mount point does not exist.
[ec2-user@ip-10-180-0-203 ~]$ cd .
[ec2-user@ip-10-180-0-203 ~]$ mount /dev/xvdf /root/mydisk
[ec2-user@ip-10-180-0-203 ~]$ ls
[ec2-user@ip-10-180-0-203 ~]$ lsblk
NAME      MAJ:MIN RM  SIZE RO TYPE MOUNTPOINTS
xvda     202:0    0   8G  0 disk
└─xvda1   202:1    0   8G  0 part /
xvda127  259:0    0   1M  0 part
└─xvda128 259:1    0  10M  0 part /boot/efi
xvdf     202:80   0   5G  0 disk /root/mydisk
[ec2-user@ip-10-180-0-203 ~]$ df -Th
[ec2-user@ip-10-180-0-203 ~]$ df -Th
Filesystem  Type      Size  Used Avail Use% Mounted on
/dev/xvdf   devtmpfs  4.2M   0  4.2M  0% /dev
tmpfs       tmpfs     498M   0  498M  0% /dev/shm
tmpfs       tmpfs    200M  3.0M 197M  2% /run
/dev/xvda1  xfs      8.6G  2.3G 6.3G  27% /
tmpfs       tmpfs    498M   0  498M  0% /tmp
/dev/xvda128 vfat     11M  1.4M  9.2M  13% /boot/efi
tmpfs       tmpfs   100M   0  100M  0% /run/user/1000
/dev/xvdf   ext4    5.2G  25k  5.0G  1% /root/mydisk
[ec2-user@ip-10-180-0-203 ~]$ |
```

Check folder

```
[root@ip-10-180-0-203 ~]# mount /dev/xvdf /mnt/mydisk
mount: /mnt/mydisk: mount point does not exist.
[root@ip-10-180-0-203 ~]# cd /
[root@ip-10-180-0-203 ~]# mount /dev/xvdf /root/mydisk
[root@ip-10-180-0-203 ~]# lsblk
NAME      MAJ:MIN RM  SIZE RO TYPE MOUNTPOINTS
xvda     202:0    0   8G  0 disk
└─xvda1   202:1    0   8G  0 part /
xvda127  259:0    0   1M  0 part
└─xvda128 259:1    0  10M  0 part /boot/efi
xvdf     202:80   0   5G  0 disk /root/mydisk
[ec2-user@ip-10-180-0-203 ~]$ df -Th
[ec2-user@ip-10-180-0-203 ~]$ df -Th
Filesystem  Type      Size  Used Avail Use% Mounted on
/dev/xvdf   devtmpfs  4.2M   0  4.2M  0% /dev
tmpfs       tmpfs     498M   0  498M  0% /dev/shm
tmpfs       tmpfs    200M  3.0M 197M  2% /run
/dev/xvda1  xfs      8.6G  2.3G 6.3G  27% /
tmpfs       tmpfs    498M   0  498M  0% /tmp
/dev/xvda128 vfat     11M  1.4M  9.2M  13% /boot/efi
tmpfs       tmpfs   100M   0  100M  0% /run/user/1000
/dev/xvdf   ext4    5.2G  25k  5.0G  1% /root/mydisk
[root@ip-10-180-0-203 ~]# |
```

```

root@ip-10-180-0-203:~# Allocating group tables: done
root@ip-10-180-0-203:~# Writing inode tables: done
root@ip-10-180-0-203:~# Creating journal (16384 blocks): done
root@ip-10-180-0-203:~# Writing superblocks and filesystem accounting information: done
[ec2-user@ip-10-180-0-203 ~]$ cd /
[ec2-user@ip-10-180-0-203 ~]$ bin dev home lib media opt root sbin sys usr
[ec2-user@ip-10-180-0-203 ~]$ boot etc lib local mnt proc run srv tmp var
[ec2-user@ip-10-180-0-203 ~]$ sudo su
[ec2-user@ip-10-180-0-203 ~]$ bin dev home lib media opt root sbin sys usr
[ec2-user@ip-10-180-0-203 ~]$ boot etc lib local mnt proc run srv tmp var
[ec2-user@ip-10-180-0-203 ~]$ sudo su
[ec2-user@ip-10-180-0-203 ~]$ bin dev home lib media opt root sbin sys usr
[ec2-user@ip-10-180-0-203 ~]$ boot etc lib local mnt proc run srv tmp var
[ec2-user@ip-10-180-0-203 ~]$ cd root
[ec2-user@ip-10-180-0-203 ~]$ ls
mydisk
[ec2-user@ip-10-180-0-203 ~]$ mount /dev/xvdf /mnt/mydisk
mount: /mnt/mydisk: mount point does not exist.
[ec2-user@ip-10-180-0-203 ~]$ cd ..
[ec2-user@ip-10-180-0-203 ~]$ mount /dev/xvdf /root/mydisk
[ec2-user@ip-10-180-0-203 ~]$ lsblk
NAME MAJ:MIN RM SIZE RO TYPE MOUNTPOINTS
xvda 202:0 0 8G 0 disk
└─xvda1 202:1 0 8G 0 part /
xvda127 259:0 0 1M 0 part
xvda128 259:1 0 10G 0 part /boot/efi
xvdf 202:80 0 10G 0 disk /root/mydisk
[ec2-user@ip-10-180-0-203 ~]$ df -h
Filesystem      Size  Used Avail Use% Mounted on
/dev/xvdf        10G   5G  5.0G  51% /root/mydisk
[ec2-user@ip-10-180-0-203 ~]$ df -TH
Filesystem      Type  Size  Used Avail Use% Mounted on
devtmpfs        devtmpfs 4.2M   0  4.2M  0% /dev
tmpfs          tmpfs   498M   0  498M  0% /dev/shm
tmpfs          tmpfs   200M 3.0M 197M  2% /run
/dev/xvda1      xfs    8.6G  2.3G  6.3G  27% /
tmpfs          tmpfs   498M   0  498M  0% /tmp
/dev/xvda128   vfat    11M 1.4M  9.2M 13% /boot/efi
tmpfs          tmpfs   100M   0 100M  0% /run/user/1000
/dev/xvdf      ext4    5.2G  25k  5.0G  1% /root/mydisk
[ec2-user@ip-10-180-0-203 ~]$ ls
bin dev home lib64 media opt root sbin sys usr
boot etc lib local mnt proc run srv tmp var
[ec2-user@ip-10-180-0-203 ~]$ cd root
[ec2-user@ip-10-180-0-203 ~]$ ls
mydisk
[ec2-user@ip-10-180-0-203 ~]$ cd mydisk
[ec2-user@ip-10-180-0-203 mydisk]$ ls
lost+found
[ec2-user@ip-10-180-0-203 mydisk]$ git clone https://github.com/programming-courses-e/Java-Object-Oriented-Programming-Courses-Example.git
Cloning into 'Java-Object-Oriented-Programming-Courses-Example'...
remote: Enumerating objects: 1631, done.
remote: Total 1631 (delta 0), reused 0 (delta 0), pack-reused 1631
Receiving objects: 100% (1631/1631), 10.03 MiB | 36.54 MiB/s, done.
Resolving deltas: 100% (873/873), done.
[ec2-user@ip-10-180-0-203 mydisk]#

```

Adding github file

```

[root@ip-10-180-0-203 ~]$ df -TH
Filesystem      Type  Size  Used Avail Use% Mounted on
devtmpfs        devtmpfs 4.2M   0  4.2M  0% /dev
tmpfs          tmpfs   498M   0  498M  0% /dev/shm
tmpfs          tmpfs   200M 3.0M 197M  2% /run
/dev/xvda1      xfs    8.6G  2.3G  6.3G  27% /
tmpfs          tmpfs   498M   0  498M  0% /tmp
/dev/xvda128   vfat    11M 1.4M  9.2M 13% /boot/efi
tmpfs          tmpfs   100M   0 100M  0% /run/user/1000
/dev/xvdf      ext4    5.2G  25k  5.0G  1% /root/mydisk
[root@ip-10-180-0-203 ~]$ ls
bin dev home lib64 media opt root sbin sys usr
boot etc lib local mnt proc run srv tmp var
[root@ip-10-180-0-203 ~]$ cd root
[root@ip-10-180-0-203 ~]$ ls
mydisk
[root@ip-10-180-0-203 ~]$ cd mydisk
[root@ip-10-180-0-203 mydisk]$ ls
lost+found
[root@ip-10-180-0-203 mydisk]$ git clone https://github.com/programming-courses-e/Java-Object-Oriented-Programming-Courses-Example.git
Cloning into 'Java-Object-Oriented-Programming-Courses-Example'...
remote: Enumerating objects: 1631, done.
remote: Total 1631 (delta 0), reused 0 (delta 0), pack-reused 1631
Receiving objects: 100% (1631/1631), 10.03 MiB | 36.54 MiB/s, done.
Resolving deltas: 100% (873/873), done.
[root@ip-10-180-0-203 mydisk]#

```

5. Creating Snapshot(backup)

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

- Services:** Services menu is open.
- Search:** Search bar at the top.
- Region:** N. Virginia.
- Profile:** bhaskar opq.
- Volume ID:** vol-05a187b304b30a3e9
- Description:** backup-volume
- Encryption Info:** Not encrypted
- Tags info:** No tags associated with the resource.
- Create snapshot:** Button at the bottom right.

The screenshot shows the AWS EC2 Dashboard. A success message at the top states: "Successfully created snapshot snap-0b1d1b379e5b65f01 from volume vol-05a187b304b30a3e9. If you need your snapshot to be immediately available consider using Fast Snapshot Restore." Below this, the "Volumes (1/3) Info" section displays a table with one row. The row for "vol-05a187b304b30a3e9" is selected, showing details: Name: vol-05a187b304b30a3e9, Volume ID: vol-05a187b304b30a3e9, Type: gp3, Size: 5 GiB, IOPS: 3000, Throughput: 125, Snapshot: snap-0d47189..., Created: 2024/03. At the bottom, a detailed view for "Volume ID: vol-05a187b304b30a3e9" is shown with tabs for Details, Status checks, Monitoring, and Tags. The Details tab shows Volume ID: vol-05a187b304b30a3e9, Size: 5 GiB, Type: gp3, Volume status: Okay, AWS Compute Optimizer finding: Opt-in to AWS Compute Optimizer for recommendations, Volume state: In-use, IOPS: 3000, Throughput: 125, KMS key alias: Not encrypted, KMS key ARN: Not encrypted.

The screenshot shows the AWS EC2 Dashboard. A success message at the top states: "Successfully created snapshot snap-0b1d1b379e5b65f01 from volume vol-05a187b304b30a3e9. If you need your snapshot to be immediately available consider using Fast Snapshot Restore." Below this, the "Schemas (1/2) Info" section displays a table with two rows. The second row, "snap-0b1d1b379e5b65f01", is selected, showing details: Name: snap-0b1d1b379e5b65f01, Snapshot ID: snap-0b1d1b379e5b65f01, Volume size: 5 GiB, Description: backup-volume, Storage tier: Standard, Snapshot status: Completed. At the bottom, a detailed view for "Snapshot ID: snap-0b1d1b379e5b65f01" is shown with tabs for Details, Snapshot settings, Storage tier, and Tags. The Details tab shows Snapshot ID: snap-0b1d1b379e5b65f01, Volume size: 5 GiB, Progress: Available (100%), Snapshot status: Completed, Owner: 198727865038, Volume ID: vol-05a187b304b30a3e9, Started: Fri Mar 29 2024 13:28:06 GMT+0530 (India Standard Time), KMS key ID: Not encrypted, KMS key alias: Not encrypted, Description: backup-volume, Product codes: -, KMS key ARN: Not encrypted.

6. Detach Volume(Deleting)

The screenshot shows the AWS EC2 Dashboard. The left sidebar is identical to the previous screenshots. The main area displays the "Volumes (1/3) Info" section with a table showing three volumes. The third volume, "vol-05a187b304b30a3e9", is selected. The table columns are Name, Volume ID, Type, Size, IOPS, Throughput, Snapshot, and Created. The rows show: Name: vol-05a187b304b30a3e9, Volume ID: vol-05a187b304b30a3e9, Type: gp3, Size: 5 GiB, IOPS: 3000, Throughput: 125, Snapshot: snap-0d47189..., Created: 2024/03. At the bottom, a detailed view for "Volume ID: vol-05a187b304b30a3e9" is shown with tabs for Details, Status checks, Monitoring, and Tags. The Details tab shows Volume ID: vol-05a187b304b30a3e9, Size: 5 GiB, Type: gp3, Volume status: Okay, AWS Compute Optimizer finding: Opt-in to AWS Compute Optimizer for recommendations, Volume state: In-use, IOPS: 3000, Throughput: 125, KMS key alias: Not encrypted, KMS key ARN: Not encrypted.

Screenshot of the AWS Management Console showing the EBS Volumes page. A modal dialog titled "Detach vol-05a187b304b30a3e9?" is open, asking if the user is sure they want to detach the volume. The modal includes fields for Volume ID (vol-05a187b304b30a3e9), Size (5 GiB), Type (gp3), and IOPS (3000). Buttons for "Cancel" and "Detach" are present.

Screenshot of the AWS Management Console showing the EBS Volumes page after the volume has been successfully detached. A green success message "Successfully detached volume." is displayed above the volume list. The volume list shows three volumes: one attached to an instance and two available.

7. Delete volume

Screenshot of the AWS Management Console showing the EBS Volumes page. A context menu is open over a selected volume (vol-05a187b304b30a3e9). The "Actions" menu is expanded, and the "Delete volume" option is highlighted.

The screenshot shows the AWS EBS Volumes console. A modal dialog box is open, asking for confirmation to delete a volume. The dialog text reads: "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-05a187b304b30a3e9?" Below the dialog are the volume details: Volume ID: vol-05a187b304b30a3e9, Type: gp2, Size: 8 GiB, IOPS: 100, Throughput: -, Snapshot: snap-091ad9e..., Created: 2024/02/29. At the bottom right of the dialog are "Cancel" and "Delete" buttons.

The screenshot shows the AWS EBS Volumes console after a successful deletion. A green success message at the top says "Successfully deleted volume vol-05a187b304b30a3e9." The main table now shows two volumes: vol-09670165a90f188e8 (gp2, 8 GiB, 100 IOPS) and vol-030df390eebdf908f (gp3, 8 GiB, 3000 IOPS). The summary section shows "Recently backed up volumes / Total # volumes" as 0 / 3. The status bar at the bottom indicates "© 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences".

8. Again creating new volume , for instance, from Snapshot

The screenshot shows the AWS EBS Snapshots console. A context menu is open over a selected snapshot named "snap-0b1d1b379e5b65f01". The menu options include "Create volume from snapshot", "Create image from snapshot", "Copy snapshot", "Delete snapshot", "Manage tags", "Snapshot settings", and "Archiving". The main table lists two snapshots: "snap-0d47189b8128e3dc1" (8 GiB, Created by CreateImage(i...)) and "snap-0b1d1b379e5b65f01" (5 GiB, backup-volume). The details panel for the selected snapshot shows: Snapshot ID: snap-0b1d1b379e5b65f01, Volume size: 5 GiB, Progress: Available (100%), Snapshot status: Completed, Owner: 198727865038, Volume ID: vol-05a187b304b30a3e9, Started: Fri Mar 29 2024 13:28:06 GMT+0530 (India Standard Time), KMS key ARN: -. The status bar at the bottom indicates "© 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences".

Snapshots > snap-0b1d1b379e5b65f01 > 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-0b1d1b379e5b65f01

Volume type: Info General Purpose SSD (gp3)

General Purpose SSD gp3 is now the default selection. gp3 provides up to 20% lower cost per GB than gp2. [Learn More](#)

Size (GiB): Info Min: 1 GiB, Max: 16384 GiB. The value must be an integer.

IOPS: Info

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

Encryption: Use Amazon EBS encryption as an encryption solution for your EBS resources associated with your EC2 instances. Encrypt this volume

Tags - optional 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.

Snapshot summary

Click refresh to view backup information
The volume type that you select and the tags that you assign determine whether the volume will be backed up by any Data Lifecycle Manager policies.

Cancel [Create volume](#)

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

Successfully created volume vol-0310fef90a2ab4594.

Snapshots (1/2) Info

Owned by me Actions [Create snapshot](#)

Name	Snapshot ID	Volume size	Description	Storage tier	Snapshot status
-	snap-0d47189b8128e3dc1	8 GiB	Created by CreateImage(...)	Standard	Completed
-	<input checked="" type="checkbox"/> snap-0b1d1b379e5b65f01	5 GiB	backup-volume	Standard	Completed

Snapshot ID: snap-0b1d1b379e5b65f01

Details Snapshot settings Storage tier Tags

Snapshot ID: snap-0b1d1b379e5b65f01	Volume size: 5 GiB	Progress: Available (100%)	Snapshot status: Completed
Owner: 198727865038	Volume ID: vol-05a187b304b30a3e9	Started: Fri Mar 29 2024 13:28:06 GMT+0530 (India Standard Time)	Product codes: -
Encryption: Not encrypted	KMS key ID: -	KMS key alias: -	KMS key ARN: -
Fast snapshot restore: Enabled	Description: -		

CloudShell Feedback © 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

Created Volume details

The screenshot shows the AWS EC2 Volumes details page for volume **vol-0310fef90a2ab4594**. The volume is a gp3 type, 5 GiB in size, with an IOPS of 3000 and a throughput of 125. It is in an **Available** state and has an **Okay** status. The volume was created on **Fri Mar 29 2024 13:42:19 GMT+0530 (India Standard Time)**. The volume is not encrypted and does not have a KMS key alias or ARN. It is attached to no resources and has no Outposts ARN.

Volume ID	Size	Type	Volume status
vol-0310fef90a2ab4594	5 GiB	gp3	Okay

AWS Compute Optimizer finding	Volume state	IOPS	Throughput
Opt-in to AWS Compute Optimizer for recommendations. Learn more	Available	3000	125

Encryption	KMS key ID	KMS key alias	KMS key ARN
Not encrypted	-	-	-

Fast snapshot restored	Snapshot	Availability Zone	Created
No	snap-0b1d1b379e5b6f01	us-east-1f	Fri Mar 29 2024 13:42:19 GMT+0530 (India Standard Time)

Multi-Attach enabled	Attached resources	Outposts ARN
No	-	-

Status checks | **Monitoring** | **Tags**

The screenshot shows the AWS EC2 Volume status checks page for volume **vol-0310fef90a2ab4594**. The volume has an **Okay** status and is not attached to any resources. The volume is located in the **us-east-1f** availability zone. The I/O status is **Enabled**, and the I/O status was updated on **Fri Mar 29 2024 13:42:19 GMT+0530 (India Standard Time)**. The volume is not auto-enabled for I/O. The status checks section provides information on working with volume status checks and events, and links to developer forums and support center.

Multi-Attach enabled	Attached resources	Outposts ARN
No	-	-

Status checks | **Monitoring** | **Tags**

Volume status	Availability Zone
Okay	us-east-1f

I/O status	I/O performance
Enabled	Not applicable

I/O status updated on	I/O performance updated on
Fri Mar 29 2024 13:42:19 GMT+0530 (India Standard Time)	-

Description	
-	This feature only applies to attached io1, io2, and gp3 volumes.

Auto-enabled I/O
Disabled

For more information about working with volume status checks and events, see [Monitor the status of your volumes](#) in the [amazon EC2 user guide](#). If you need technical assistance with your volume, post your issue to the [Developer Forums](#) or visit our [Support Center](#).

9. Again attach volume to instance

The screenshot shows the AWS EC2 Volumes list page. The volume **vol-0310fef90a2ab4594** is selected. The Actions menu is open, showing options like **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**, and **Fault injection**. The **Attach volume** option is highlighted.

Volumes (1/3) Info						
Name	Volume ID	Type	Size	IOPS	Throughput	
-	vol-09670165a90f188e8	gp2	8 GiB	100	-	
-	vol-030df390eebdf908f	gp3	8 GiB	3000	125	
<input checked="" type="checkbox"/>	vol-0310fef90a2ab4594	gp3	5 GiB	3000	125	

Volume ID: vol-0310fef90a2ab4594

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**

Volume ID	Size	Type	Volume status
vol-0310fef90a2ab4594	5 GiB	gp3	Okay

AWS Compute Optimizer finding	Volume state	IOPS	Throughput
Opt-in to AWS Compute Optimizer for recommendations. Learn more	Available	3000	125

Encryption	KMS key ID	KMS key alias	KMS key ARN
Not encrypted	-	-	-

© 2024, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

S | Services | Search | [Alt+S] | N. Virginia | bhaskar opq

EC2 > Volumes > vol-0310fef90a2ab4594 > Attach volume

A | Specify a custom device name... |
Att Reserved for root volume | /dev/xvda | Linux | The device name is already in use.

Recommended for data volumes

Device Name	OS Type
/dev/sdb	Linux
/dev/sdc	Linux
/dev/sdd	Linux
/dev/sde	Linux
/dev/sdf	Linux
/dev/sdg	Linux
/dev/sdh	Linux
/dev/sdi	Linux
/dev/sdj	Linux

Select a device name |

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

CloudShell | Feedback | © 2024, Amazon Web Services, Inc. or its affiliates. | Privacy | Terms | Cookie preferences

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 | us-east-1f | ▾

Fast snapshot restore | Info | Not enabled for selected snapshot

Encryption
Use Amazon EBS encryption as an encryption solution for your EBS resources associated with your EC2 instances.
 Encrypt this volume

Tags - optional | 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.

CloudShell | Feedback | © 2024, Amazon Web Services, Inc. or its affiliates. | Privacy | Terms | Cookie preferences

Basic details

Volume ID | vol-0310fef90a2ab4594

Availability Zone | us-east-1f

Instance | Info | i-025ac80df5f1b7938 |

Device name | Info | /dev/xvde | Recommended device names for Linux: /dev/xvda for root volume. /dev/sd[f-p] for data volumes.

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

Cancel | **Attach volume**

CloudShell | Feedback | © 2024, Amazon Web Services, Inc. or its affiliates. | Privacy | Terms | Cookie preferences

Screenshot of the AWS EC2 Dashboard showing the successful attachment of volume `vol-0310fef90a2ab4594` to instance `i-025ac80df5f1b7938`. The Volumes list shows three volumes: `vol-09670165a90f188e8` (gp2, 8 GiB, 100 IOPS), `vol-030df390eebd908f` (gp3, 8 GiB, 3000 IOPS), and `vol-0310fef90a2ab4594` (gp3, 5 GiB, 3000 IOPS). The volume details show it is 5 GiB, gp3 type, 3000 IOPS, In-use state, and throughput of 125.

```
root@ip-10-180-0-203:~/newdir
DELL LAPTOPDESKTOP-2035130 MINGW64 ~/Desktop/New folder (new_branch)
$ ssh -i "Ami.pem" ec2-user@3.236.82.166
ssh: connect to host 3.238.82.166 port 22: Connection timed out
DELL LAPTOPDESKTOP-2035130 MINGW64 ~/Desktop/New folder (new_branch)
$ ssh -i "Ami.pem" ec2-user@3.238.82.166
ssh: connect to host 3.238.82.166 port 22: Connection timed out
DELL LAPTOPDESKTOP-2035130 MINGW64 ~/Desktop/New folder (new_branch)
$ ssh -i "Ami.pem" ec2-user@3.236.235.183
.
.
.
Amazon Linux 2023
.
.
.
https://aws.amazon.com/linux/amazon-linux-2023

Last login: Fri Mar 29 07:23:15 2024 from 203.194.97.170
[ec2-user@ip-10-180-0-203 ~]$ ls
file1
[ec2-user@ip-10-180-0-203 ~]$ llblk
NAME MAJ:MIN RM SIZE RO TYPE MOUNTPOINTS
xvda 202:0 0 8G 0 disk
|xvda1 202:1 0 8G 0 part /
|xvda127 259:0 0 1M 0 part /
|xvda128 259:1 0 10M 0 part /boot/efi
|xvde 202:64 0 5G 0 disk
[ec2-user@ip-10-180-0-203 ~]$ df -Th
Filesystem Type Size Used Avail Use% Mounted on
devtmpfs devtmpfs 4.2M 0 4.2M 0% /dev
tmpfs tmpfs 498M 0 498M 0% /dev/shm
tmpfs tmpfs 200M 3.0M 197M 2% /run
tmpfs tmpfs 8.6G 2.3G 6.3G 27% /
tmpfs tmpfs 498M 0 498M 0% /tmp
tmpfs tmpfs 100M 0 100M 0% /run/user/1000
[ec2-user@ip-10-180-0-203 ~]$ sudo su
[ec2-user@ip-10-180-0-203 ec2-user]# ls
[root@ip-10-180-0-203 ec2-user]# cd root
[ec2-user@ip-10-180-0-203 ec2-user]# ls
```

```
[root@ip-10-180-0-203:~/newdir
[ec2-user@ip-10-180-0-203 ~]$ sudo su
[ec2-user@ip-10-180-0-203 ec2-user]# ls
file1
[ec2-user@ip-10-180-0-203 ~]$ llblk
NAME MAJ:MIN RM SIZE RO TYPE MOUNTPOINTS
xvda 202:0 0 8G 0 disk
|xvda1 202:1 0 8G 0 part /
|xvda127 259:0 0 1M 0 part /
|xvda128 259:1 0 10M 0 part /boot/efi
|xvde 202:64 0 5G 0 disk
[ec2-user@ip-10-180-0-203 ~]$ exit
[ec2-user@ip-10-180-0-203 ~]$ ls
file1
[ec2-user@ip-10-180-0-203 ~]$ cd ..
[ec2-user@ip-10-180-0-203 ~]$ exit
Logout
Connection to 3.236.235.183 closed.

DELL LAPTOPDESKTOP-2035130 MINGW64 ~/Desktop/New folder (new_branch)
$ ssh -i "Ami.pem" ec2-user@3.236.235.183
.
.
.
Amazon Linux 2023
.
.
.
https://aws.amazon.com/linux/amazon-linux-2023

Last login: Fri Mar 29 08:21:12 2024 from 203.194.97.170
[ec2-user@ip-10-180-0-203 ~]$ ls
file1
[ec2-user@ip-10-180-0-203 ~]$ llblk
NAME MAJ:MIN RM SIZE RO TYPE MOUNTPOINTS
xvda 202:0 0 8G 0 disk
|xvda1 202:1 0 8G 0 part /
|xvda127 259:0 0 1M 0 part /
|xvda128 259:1 0 10M 0 part /boot/efi
|xvde 202:64 0 5G 0 disk
[ec2-user@ip-10-180-0-203 ~]$ df -Th
Filesystem Type Size Used Avail Use% Mounted on
devtmpfs devtmpfs 4.2M 0 4.2M 0% /dev
tmpfs tmpfs 498M 0 498M 0% /dev/shm
tmpfs tmpfs 200M 3.0M 197M 2% /run
tmpfs tmpfs 8.6G 2.3G 6.3G 27% /
tmpfs tmpfs 498M 0 498M 0% /tmp
tmpfs tmpfs 100M 0 100M 0% /run/user/1000
[ec2-user@ip-10-180-0-203 ~]$ sudo su
[ec2-user@ip-10-180-0-203 ec2-user]# ls
[root@ip-10-180-0-203 ec2-user]# cd root
[ec2-user@ip-10-180-0-203 ec2-user]# ls
```

10. Checking after Attaching volume with the help of snapshot, File is there or not.

```
[root@ip-10-180-0-203:~/newdir
[ec2-user@ip-10-180-0-203 ~]$ ls
file1
[ec2-user@ip-10-180-0-203 ~]$ llblk
NAME MAJ:MIN RM SIZE RO TYPE MOUNTPOINTS
xvda 202:0 0 8G 0 disk
|xvda1 202:1 0 8G 0 part /
|xvda127 259:0 0 1M 0 part /
|xvda128 259:1 0 10M 0 part /boot/efi
|xvde 202:64 0 5G 0 disk
[ec2-user@ip-10-180-0-203 ~]$ df -Th
Filesystem Type Size Used Avail Use% Mounted on
devtmpfs devtmpfs 4.2M 0 4.2M 0% /dev
tmpfs tmpfs 498M 0 498M 0% /dev/shm
tmpfs tmpfs 200M 3.0M 197M 2% /run
tmpfs tmpfs 8.6G 2.3G 6.3G 27% /
tmpfs tmpfs 498M 0 498M 0% /tmp
tmpfs tmpfs 100M 0 100M 0% /run/user/1000
[ec2-user@ip-10-180-0-203 ~]$ sudo su
[ec2-user@ip-10-180-0-203 ec2-user]# cd /
[ec2-user@ip-10-180-0-203 ~]# ls
bin dev home lib64 media opt root sbin sys usr
boot etc lib local mnt proc run srv tmp var
[ec2-user@ip-10-180-0-203 ~]# cd root
[ec2-user@ip-10-180-0-203 ~]# ls
mydisk
[ec2-user@ip-10-180-0-203 ~]# df -Th
Filesystem Type Size Used Avail Use% Mounted on
devtmpfs devtmpfs 4.2M 0 4.2M 0% /dev
tmpfs tmpfs 498M 0 498M 0% /dev/shm
tmpfs tmpfs 200M 3.0M 197M 2% /run
tmpfs tmpfs 8.6G 2.3G 6.3G 27% /
tmpfs tmpfs 498M 0 498M 0% /tmp
tmpfs tmpfs 100M 0 100M 0% /run/user/1000
[ec2-user@ip-10-180-0-203 ~]# mount /root/mydisk
mount: /root/mydisk: target is busy.
[ec2-user@ip-10-180-0-203 ~]# ls
mydisk
[ec2-user@ip-10-180-0-203 ~]# cd ..
[ec2-user@ip-10-180-0-203 ~]# ls
```

```
MINGW64/c/Users/DELL LAPTOP/Desktop/New folder
[root@ip-10-180-0-203 ~]# mkdir /root/newdir
[root@ip-10-180-0-203 ~]# mount /dev/xvde /root/newdir
[ec2-user@ip-10-180-0-203 ~]# ls
bin dev home lib64 media opt root sbin sys usr
boot etc lib local mnt proc run srv tmp var
[ec2-user@ip-10-180-0-203 ~]# df -Th
Filesystem Type Size Used Avail Use% Mounted on
devtmpfs devtmpfs 4.2M 0 4.2M 0% /dev
tmpfs tmpfs 498M 0 498M 0% /dev/shm
tmpfs tmpfs 200M 3.0M 197M 2% /run
/dev/xvda xfs 8.6G 2.3G 6.3G 27% /
tmpfs tmpfs 498M 0 498M 0% /tmp
tmpfs tmpfs 100M 0 100M 0% /run/user/1000
[ec2-user@ip-10-180-0-203 ~]# mount /root/newdir
mount: /root/newdir: target is busy.
[ec2-user@ip-10-180-0-203 ~]# umount /root/newdir
umount: /root/newdir: target is busy.
[ec2-user@ip-10-180-0-203 ~]# umount /root/newdir
umount: /root/newdir: target is busy.
[ec2-user@ip-10-180-0-203 ~]# Broadcast message from root@ip-10-180-0-203.ec2.internal (Fri 2024-03-29 08:40:41 UTC):
The system will power off now!
Broadcast message from root@ip-10-180-0-203.ec2.internal (Fri 2024-03-29 08:40:41 UTC):
The system will power off now!
Connection to 3.236.235.183 closed by remote host.
Connection to 3.236.235.183 closed.
```