

Made By

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015 Practical - Create Snapshot of EBS and using snapshot create Volumes in different Zone, Region and AWS Account - 21 Feb 2022

The screenshot shows the AWS EC2 Management Console interface. The top navigation bar includes links for Create volume, Instances, i-088c5bb437be8a730 (Practical-21-feb), EC2 Management Console, Billing Management Console, Volumes, and other services like AppSync, Google Sheets, and YouTube. The main search bar is set to "Search for services, features, blogs, docs, and more".

The left sidebar menu is expanded, showing sections for New EC2 Experience, EC2 Dashboard, EC2 Global View, Events, Tags, Limits, Instances (with sub-options for Instances, Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Capacity Reservations), Images (AMIs), and Elastic Block Store.

The main content area displays the "Instances (1/1)" page. A table lists one instance:

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone
Practical-21-feb	i-088c5bb437be8a730	Running	t2.micro	2/2 checks passed	No alarms	ap-south-1a

Below the table, the details for the selected instance (i-088c5bb437be8a730) are shown. The "Details" tab is active, displaying the following information:

Instance summary	Info
Instance ID	i-088c5bb437be8a730 (Practical-21-feb)
IPv6 address	-
Hostname type	IP name: ip-172-31-33-156.ap-south-1.compute.internal
Public IPv4 address	3.6.38.185 open address
Instance state	Running
Private IP DNS name (IPv4 only)	ip-172-31-33-156.ap-south-1.compute.internal
Private IPv4 addresses	172.31.33.156
Public IPv4 DNS	ec2-3-6-38-185.ap-south-1.compute.amazonaws.com open address
Answer private resource DNS name	IPv4 (A)

The bottom of the screen includes standard browser controls, a footer with copyright information (© 2022, Amazon Internet Services Private Ltd. or its affiliates.), and a system tray showing language (ENG IN), battery level (7:12 PM), and date (2/21/2022).

- I have created one instance

The screenshot shows the AWS EBS Volume Settings page. The left sidebar lists various EC2 and EBS services. The main form is titled "Create an Amazon EBS volume to attach to any EC2 instance in the same Availability Zone." It includes fields for Volume type (set to "General Purpose SSD (gp2)"), Size (5 GiB), IOPS (100 / 3000), Throughput (Not applicable), Availability Zone (ap-south-1a), Snapshot ID (Don't create volume from a snapshot), and Encryption (Encrypt this volume). Below this is a "Tags - optional" section with a note about tags and an "Add tag" button. At the bottom are "Cancel" and "Create volume" buttons.

- Then create one volume of 5GB in same **Availability Zone**

The screenshot shows the AWS EC2 Management Console interface. In the top navigation bar, there are several tabs: 'Volumes | EC2 Management Con...', 'Instances | EC2 Management Cor...', 'EC2 Management Console', 'Billing Management Console', 'Volumes | EC2 Management Con...', and a '+' button. Below the tabs, the URL is 'ap-south-1.console.aws.amazon.com/ec2/v2/home?region=ap-south-1#Volumes:'.

The main content area displays a success message: 'Successfully created volume vol-0dce3e053a8f377e4.' Below this, the 'Volumes (1/2)' section is shown. A table lists two volumes:

Name	Volume ID	Type	Size	IOPS	Snapshot	Availability Zone	Volume state
practice-linux	vol-01e9261dec132b009	gp2	8 GiB	100	snap-0d2b1848f14ffd...	ap-south-1a	In-use
21-feb-volume	vol-0dce3e053a8f377e4	gp2	5 GiB	100	-	ap-south-1a	Available

A red box highlights the newly created volume '21-feb-volume'. To the right of the table, another red box highlights the 'Availability Zone' and 'Volume state' columns, showing 'ap-south-1a' and 'Available' respectively.

Below the table, a detailed view for the volume 'vol-0dce3e053a8f377e4 (21-feb-volume)' is provided. The 'Details' tab is selected, showing the following information:

Volume ID	Size	Type	Volume status
vol-0dce3e053a8f377e4 (21-feb-volume)	5 GiB	gp2	Okay
Volume state	IOPS	Throughput	Encryption
Available	100	-	Not encrypted
KMS key ID	KMS key alias	KMS key ARN	Snapshot
-	-	-	-

At the bottom of the page, there are links for 'Feedback', 'English (US)', '© 2022, Amazon Internet Services Private Ltd. or its affiliates.', 'Privacy', 'Terms', and 'Cookie preferences'. The system status bar at the bottom right shows 'ENG IN', '6:34 PM', '2/21/2022', and a battery icon.

- Here it is created in same zone and **Available** to use

The screenshot shows a browser window with multiple tabs open, including 'Attach volume | EC2 Management', 'Connect to instance | EC2 Management', 'EC2 Management Console', 'Billing Management Console', and 'Volumes | EC2 Management'. The main content area is the 'Attach volume' dialog for a volume with ID 'vol-0dce3e053a8f377e4'. The dialog includes fields for 'Volume ID' (set to 'vol-0dce3e053a8f377e4 (21-feb-volume)'), 'Availability Zone' ('ap-south-1a'), 'Instance Info' (selected instance 'i-088c5bb437be8a730'), 'Device name Info' ('/dev/sdf'), and a note about kernel renaming. At the bottom are 'Cancel' and 'Attach volume' buttons.

Attach volume | EC2 Management | Connect to instance | EC2 Management | EC2 Management Console | Billing Management Console | Volumes | EC2 Management | +

← → ⌂ 🔒 ap-south-1.console.aws.amazon.com/ec2/v2/home?region=ap-south-1#AttachVolume:volumeld=vol-0dce3e053a8f377e4

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

Basic details

Volume ID
vol-0dce3e053a8f377e4 (21-feb-volume)

Availability Zone
ap-south-1a

Instance Info
i-088c5bb437be8a730

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

Device name Info
/dev/sdf

Linux device names: /dev/sdf through /dev/sdp

Note: 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.

Cancel

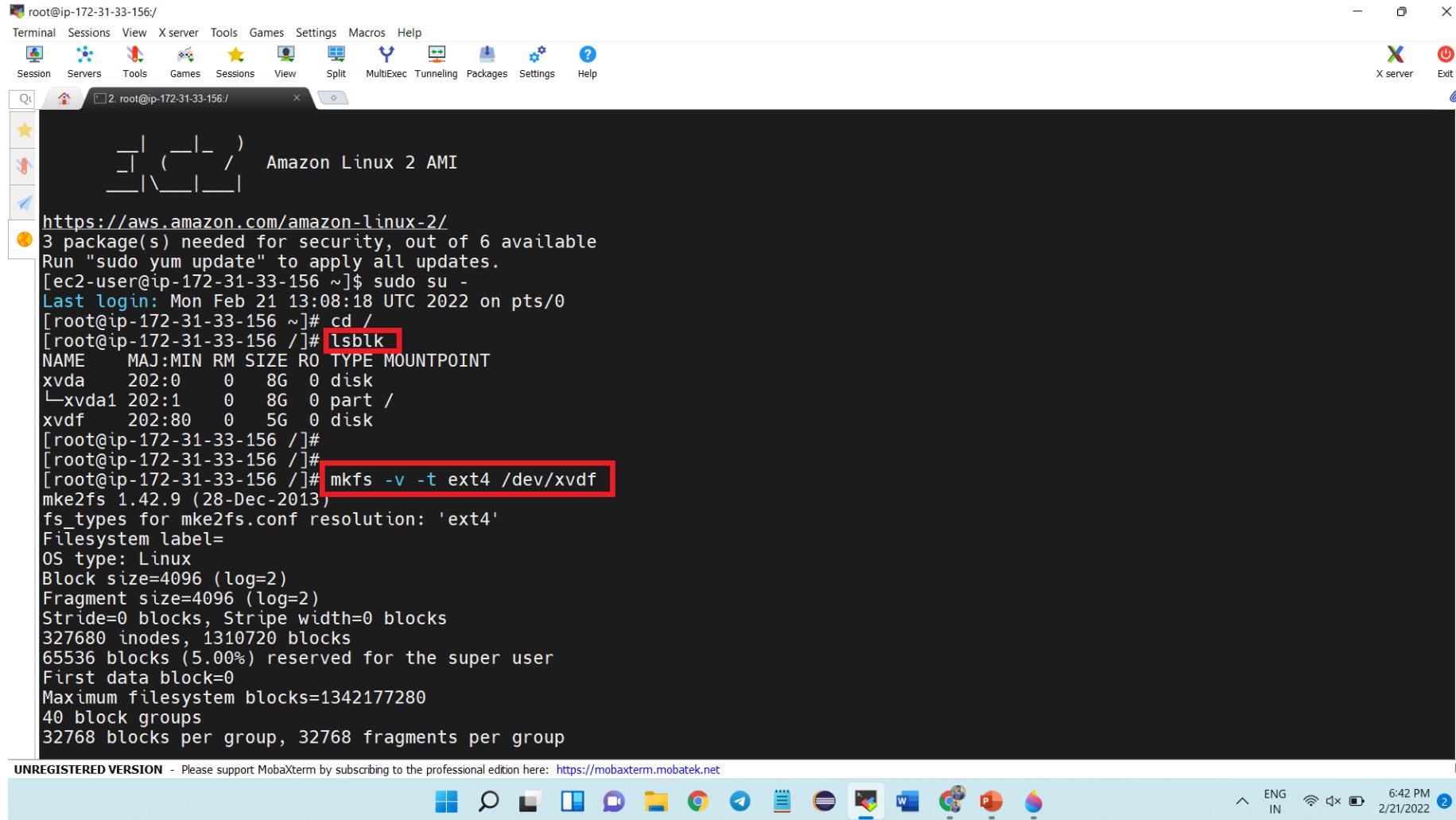
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ENG IN 6:36 PM 2/21/2022 2

- Now attach volume to instance

The screenshot shows the AWS EC2 Management Console with the URL ap-south-1.console.aws.amazon.com/ec2/v2/home?region=ap-south-1#Volumes. The main content area displays a success message: "Successfully attached volume vol-0dce3e053a8f377e4 to instance i-088c5bb437be8a730." Below this, the "Volumes (1/2)" table lists two volumes. The second volume, "21-feb-volume" (Volume ID: vol-0dce3e053a8f377e4), is highlighted with a red box. Its details are shown in the "Details" pane, which includes fields like Volume ID, Size, Type, Volume status, Volume state (In-use), KMS key ID, Availability Zone (ap-south-1a), Created date, Multi-Attach enabled, and Attached Instances (i-088c5bb437be8a730 (Practical-21-feb): /dev/sdf (attaching)). The "Volume state" column for both volumes is labeled "In-use" with a green checkmark. A red box also highlights the "Volume state" column in the table header.

- Here you can see that it is now in use.
Now we are going to login into our instance by using **MobaxTerm**



The screenshot shows a terminal session in MobaXterm. The terminal window title is "root@ip-172-31-33-156:". The session bar includes icons for Session, Servers, Tools, Games, Sessions, View, Split, MultiExec, Tunneling, Packages, Settings, Help, X server, and Exit. The main terminal area displays the following command and its output:

```
Amazon Linux 2 AMI
https://aws.amazon.com/amazon-linux-2/
3 package(s) needed for security, out of 6 available
Run "sudo yum update" to apply all updates.
[ec2-user@ip-172-31-33-156 ~]$ sudo su -
[ec2-user@ip-172-31-33-156 ~]# cd /
[ec2-user@ip-172-31-33-156 /]# lsblk
NAME   MAJ:MIN RM SIZE RO TYPE MOUNTPOINT
xvda   202:0    0  8G  0 disk
└─xvda1 202:1    0  8G  0 part /
xvdf   202:80   0  5G  0 disk
[ec2-user@ip-172-31-33-156 /]#
[ec2-user@ip-172-31-33-156 /]# mkfs -v -t ext4 /dev/xvdf
mke2fs 1.42.9 (28-Dec-2013)
fs_types for mke2fs.conf resolution: 'ext4'
Filesystem label=
OS type: Linux
Block size=4096 (log=2)
Fragment size=4096 (log=2)
Stride=0 blocks, Stripe width=0 blocks
327680 inodes, 1310720 blocks
65536 blocks (5.00%) reserved for the super user
First data block=0
Maximum filesystem blocks=1342177280
40 block groups
32768 blocks per group, 32768 fragments per group
```

The command `mkfs -v -t ext4 /dev/xvdf` is highlighted with a red box.

- Now we are mounting the volume of 5GB into our instance.
- Use above commands

```
[root@ip-172-31-33-156 ~]# mkdir 21feb
[root@ip-172-31-33-156 ~]# mount /dev/xvdf /21feb
[root@ip-172-31-33-156 ~]# cd /21feb
[root@ip-172-31-33-156 21feb]# ls -ltr
total 16
drwx----- 2 root root 16384 Feb 21 13:11 lost+found
[root@ip-172-31-33-156 21feb]# [root@ip-172-31-33-156 21feb]# [root@ip-172-31-33-156 21feb]# touch 1 2 3 4
[root@ip-172-31-33-156 21feb]# mkdir A B C D
[root@ip-172-31-33-156 21feb]# [root@ip-172-31-33-156 21feb]# [root@ip-172-31-33-156 21feb]# ls -ltr
total 32
drwx----- 2 root root 16384 Feb 21 13:11 lost+found
-rw-r--r-- 1 root root 0 Feb 21 13:14 4
-rw-r--r-- 1 root root 0 Feb 21 13:14 3
-rw-r--r-- 1 root root 0 Feb 21 13:14 2
-rw-r--r-- 1 root root 0 Feb 21 13:14 1
drwxr-xr-x 2 root root 4096 Feb 21 13:14 A
drwxr-xr-x 2 root root 4096 Feb 21 13:14 D
```

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- So here we mounted our 5GB volume by using **mount** command in desired directory
- Also we have created some files into that 5GB of Volume. Here we can see that

Now we are going to create snapshot of that
5GB volume.

The screenshot shows the AWS EC2 Management Console with the 'Volumes' page open. A 5GB volume named '21-feb-volume' is selected and highlighted with a red box. A context menu is open over the selected volume, with the 'Create snapshot' option highlighted by another red box. The 'Actions' menu also includes options like 'Modify volume', 'Create snapshot lifecycle policy', 'Delete volume', 'Attach volume', 'Detach volume', 'Force detach volume', 'Manage auto-enabled I/O', and 'Manage tags'.

Name	Volume ID	Type	Size	IOPS	Snapshot	Avg. Throughput
practice-linux	vol-01e9261dec132b009	gp2	8 GiB	100	snap-0d2b1848f14ffd...	ap-south-1
21-feb-volume	vol-0dce3e053a8f377e4	gp2	5 GiB	100	-	ap-south-1

Volume ID: vol-0dce3e053a8f377e4 (21-feb-volume)

Details Status checks Monitoring Tags

Details

Volume ID vol-0dce3e053a8f377e4 (21-feb-volume)	Size 5 GiB	Type gp2	Volume status Okay
Volume state In-use	IOPS 100	Throughput -	Encryption Not encrypted
KMS key ID -	KMS key alias -	KMS key ARN -	Snapshot -
Availability Zone ap-south-1a	Created Mon Feb 21 2022 18:33:09 GMT+0530	Multi-Attach enabled No	Attached Instances i-088c5bb437be8a730 (Practical-21-feb):

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ENG IN 6:48 PM 2/21/2022 3

- Now select that 5GB volume
- Click on **Actions**
- Then click on **Create Snapshot**

Create snapshot | EC2 Man... Connect to instance | EC2 M... i-088c5bb437be8a730 (Prac... EC2 Management Console Billing Management Concl... Volumes | EC2 Management... + - X

← → 🔒 ap-south-1.console.aws.amazon.com/ec2/v2/home?region=ap-south-1#CreateSnapshotFromVolume:volumId=vol-0dce3e053a8f377e4

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aws Services Mumbai Satish DevOps Engineer

Create snapshot Info

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

Details

Volume ID
vol-0dce3e053a8f377e4 (21-feb-volume)

Description
Add a description for your snapshot
this-is-snapshot-of-our-volume

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

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ENG IN 6:51 PM 2/21/2022 3

- Add description
- Then click on create snapshot

The screenshot shows the AWS EC2 Management Console interface. The top navigation bar includes tabs for Volumes, Connect to instance, i-088c5bb437be8a730 (Prac..., EC2 Management Console, Billing Management Console, and Volumes. The URL in the address bar is ap-south-1.console.aws.amazon.com/ec2/v2/home?region=ap-south-1#Volumes. The search bar at the top right contains the placeholder "Search for services, features, blogs, docs, and more". A sidebar on the left lists various services: New EC2 Experience (with a "Tell us what you think" link), EC2 Dashboard, EC2 Global View, Events, Tags, Limits, Instances (with sub-links for Instances, Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, and Capacity Reservations), Images (with sub-links for AMIs and AMI Catalog), and Elastic Block Store. A red box highlights a green success message at the top center: "Successfully created snapshot snap-0329927028f660a5c from volume vol-0dce3e053a8f377e4. If you need your snapshot to be immediately available consider using Fast Snapshot Restore." Below this message is a table titled "Volumes (2)" with two rows of data. The columns are Name, Volume ID, Type, Size, IOPS, Snapshot, Availability Zone, and Volume state. The first row corresponds to the volume "practice-linux" and the second to "21-feb-volume". At the bottom of the page, there is a footer with links for Feedback, English (US), Privacy, Terms, and Cookie preferences, along with system status icons for battery, signal, and date/time (6:52 PM, 2/21/2022).

Name	Volume ID	Type	Size	IOPS	Snapshot	Availability Zone	Volume state
practice-linux	vol-01e9261dec132b009	gp2	8 GiB	100	snap-0d2b1848f14ffd...	ap-south-1a	In-use
21-feb-volume	vol-0dce3e053a8f377e4	gp2	5 GiB	100	-	ap-south-1a	In-use

- Here we can see that our snapshot is created successfully.

The screenshot shows the AWS EC2 Management Console with the 'Schemas' tab selected. The left sidebar shows navigation options like Capacity Reservations, Images, AMIs, AMI Catalog, Elastic Block Store, Volumes, Snapshots (which is selected and highlighted in red), Lifecycle Manager, Network & Security, Security Groups, Elastic IPs, Placement Groups, Key Pairs, Network Interfaces, Load Balancing, Load Balancers, Target Groups, Auto Scaling, Launch Configurations, and CloudWatch Metrics. The main content area displays a table titled 'Snapshots (1/1)' with one item: 'this-is-snapshot-of-volume-1'. The table columns include Name, Snapshot ID, Size, Description, Storage..., Snapshot status, and Started. The 'Snapshot status' column for the first row shows 'Completed'. Below the table, a detailed view for 'Snapshot ID: snap-0329927028f660a5c (this-is-snapshot-of-volume-1)' is shown with tabs for Details, Permissions, Storage tier, and Tags. The 'Details' tab shows fields such as Snapshot ID (snap-0329927028f660a5c), Size (5 GiB), Progress (Available 100%), Owner (876283541003), Volume ID (vol-0dce3e053a8f377e4), Started (Mon Feb 21 2022 18:51:53 GMT+0530 (India Standard Time)), and Description (this-is snapshot-of-our-volume). The 'Snapshot status' field here also shows 'Completed'. The bottom of the page includes standard footer links and a toolbar.

Name	Snapshot ID	Size	Description	Storage...	Snapshot status	Started
this-is-snapshot-of-volume-1	snap-0329927028f660a5c	5 GiB	this-is snapshot-of-our-vol...	Standard	Completed	2022/02/21 18:5

Snapshot ID: snap-0329927028f660a5c (this-is-snapshot-of-volume-1)

Details	Permissions	Storage tier	Tags
<p>Snapshot ID snap-0329927028f660a5c (this-is-snapshot-of-volume-1)</p> <p>Owner 876283541003</p> <p>Encryption Not encrypted</p> <p>Fast snapshot restore -</p>	<p>Size 5 GiB</p> <p>Volume ID vol-0dce3e053a8f377e4</p> <p>KMS key ID -</p> <p>Description this-is snapshot-of-our-volume</p>	<p>Progress Available (100%)</p> <p>Started Mon Feb 21 2022 18:51:53 GMT+0530 (India Standard Time)</p> <p>KMS key alias -</p>	<p>Snapshot status Completed</p> <p>Product codes -</p> <p>KMS key ARN -</p>

- Here we can see that all the details our snapshot.

Now we will see that how to copy snapshot from one region to another region.

The screenshot shows the AWS EC2 Management Console interface. The left sidebar contains navigation links for 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), Load Balancing (Load Balancers, Target Groups), and Auto Scaling (Launch Configurations). The main content area displays a table titled "Snapshots (1/1)" with one item: "this-is-snapshot-of-volume-1" (Snapshot ID: snap-0329927028f660a5c). A context menu is open over this snapshot, with the "Actions" button highlighted by a red box. The menu options include: Create volume from snapshot, Create image from snapshot, Copy snapshot (also highlighted by a red box), Modify permissions, Manage fast snapshot restore, Archive snapshot, Restore snapshot from archive, Change restore period, Delete snapshot, and Manage tags. The status bar at the bottom indicates the snapshot is "Completed".

Name	Snapshot ID	Size	Description	Storage...
this-is-snapshot-of-volume-1	snap-0329927028f660a5c	5 GiB	this-is snapshot-of-our-vol...	Standard

Snapshot ID: snap-0329927028f660a5c (this-is-snapshot-of-volume-1)

Details	Permissions	Storage tier	Tags
Snapshot ID snap-0329927028f660a5c (this-is-snapshot-of-volume-1)	Size 5 GiB	Progress Available (100%)	Product codes -
Owner 876283541003	Volume ID vol-0dce3e053a8f377e4	Started Mon Feb 21 2022 18:51:53 GMT+0530 (India Standard Time)	KMS key ARN -
Encryption Not encrypted	KMS key ID -	KMS key alias -	
Fast snapshot restore -	Description this-is snapshot-of-our-volume		

- Select the particular snapshot and click on **Actions**
- Then click on **Copy Snapshot**

The screenshot shows the AWS EC2 Management Console with the 'Copy snapshot' dialog open. The 'New snapshot settings' section is highlighted with a red box. It contains the following fields:

- Description**: A description for the snapshot copy. The value is "copy-this-is-snapshot-of-our-volume".
- Destination Region**: The Region in which to create the snapshot copy. The value is "us-east-2".

At the bottom of the dialog, there are "Cancel" and "Copy snapshot" buttons. The "Copy snapshot" button is orange and has a white outline.

- Now add **Description**
- Also select **Destination Region**
- Then click on **Copy Snapshot**

The screenshot shows the AWS EC2 Management Console interface. At the top, there are several tabs including 'Schemas | EC2 Management' (active), 'Connect to instance | EC2 M...', 'i-088c5bb437be8a730 (Prac...', 'EC2 Management Console', 'Billing Management Consci...', 'Volumes | EC2 Management', and others. Below the tabs, the URL is 'ap-south-1.console.aws.amazon.com/ec2/v2/home?region=ap-south-1#Snapshots:'.

The main navigation bar includes links for 'Apps', 'Google', 'Satish DevOps Engg', 'SOCIAL', 'New folder', 'Backlink', 'Google', 'YouTube', 'Marathi Typing | En...', 'Majhi Naukri | माझी...', 'WhatsApp', 'Other bookmarks', and 'Reading list'. On the right side of the header, there are icons for 'Mumbai' and 'Satish DevOps Engineer'.

The left sidebar contains sections for 'Instances' (Instances, Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Capacity Reservations), 'Images' (AMIs, AMI Catalog), and 'Elastic Block Store'.

The central area displays a success message: 'Successfully created snapshot copy snap-01a2aaab01592c15d.' followed by a table titled 'Snapshots (1)'. The table has columns: Name, Snapshot ID, Size, Description, Storage..., Snapshot status, and Started. One row is shown:

Name	Snapshot ID	Size	Description	Storage...	Snapshot status	Started
this-is-snapshot-of-volume-1	snap-0329927028f660a5c	5 GiB	this-is-snapshot-of-our-vol...	Standard	Completed	2022/02/21 18:5

Below the table, a message says 'Select a snapshot above.'

The bottom of the screen features a footer with links for 'Feedback', 'English (US)', '© 2022, Amazon Internet Services Private Ltd. or its affiliates.', 'Privacy', 'Terms', 'Cookie preferences', and system status indicators for language ('ENG IN'), battery level ('6:58 PM'), and date ('2/21/2022').

- Here we can see that our snapshot is created in another region.

Now go to second region in which we have created copy o snapshot.

The screenshot shows the AWS EC2 Management Console interface. The top navigation bar includes tabs for 'Schemas | EC2 Management', 'Connect to instance | EC2 M...', 'i-088c5bb437be8a730 (Prac...', 'EC2 Management Console', 'Billing Management Consci...', 'Volumes | EC2 Managemen...', and a '+' button. Below the tabs, the URL is 'us-east-2.console.aws.amazon.com/ec2/v2/home?region=us-east-2#Snapshots:' and the search bar says 'Search for services, features, blogs, docs, and more [Alt+S]'. The top right shows 'Ohio' and 'Satish DevOps Engineer'. The left sidebar has sections for 'New EC2 Experience', 'EC2 Dashboard', 'EC2 Global View', 'Events', 'Tags', 'Limits', 'Instances' (with 'Instances New'), 'Instance Types', 'Launch Templates', 'Spot Requests', 'Savings Plans', 'Reserved Instances New', 'Dedicated Hosts', 'Capacity Reservations', 'Images' (with 'AMIs New'), 'AMI Catalog', and 'Elastic Block Store'. A feedback link 'Feedback English (US) ▾' is at the bottom left. The main content area shows 'Schemas (1/1)' with a table header: 'Name', 'Snapshot ID', 'Size', 'Description', 'Storage...', 'Snapshot status', and 'Started'. A single row is listed: 'snap-01a2aaab01592c15d', '5 GiB', 'copy-this-is snapshot-of-o...', 'Standard', 'Completed', and '2022/02/21 18:58 GMT+5:...'. Below this, a detailed view for 'Snapshot ID: snap-01a2aaab01592c15d' is shown with tabs for 'Details', 'Permissions', 'Storage tier', and 'Tags'. The 'Details' tab displays fields like 'Snapshot ID', 'Owner', 'Encryption', 'Fast snapshot restore', 'Size', 'Volume ID', 'KMS key ID', 'Progress', 'Started', 'KMS key alias', 'Product codes', and 'KMS key ARN'. The 'Description' field contains 'copy-this-is snapshot-of-our-volume'. The bottom right corner shows system status: 'ENG IN', '7:01 PM 2/21/2022', and a notification icon.

Name	Snapshot ID	Size	Description	Storage...	Snapshot status	Started
-	snap-01a2aaab01592c15d	5 GiB	copy-this-is snapshot-of-o...	Standard	Completed	2022/02/21 18:58 GMT+5:...

Snapshot ID: snap-01a2aaab01592c15d

Details	Permissions	Storage tier	Tags
Snapshot ID snap-01a2aaab01592c15d	Size 5 GiB	Progress Available (100%)	Snapshot status Completed
Owner 876283541003	Volume ID vol-ffffffff	Started Mon Feb 21 2022 18:58:43 GMT+0530 (India Standard Time)	Product codes -
Encryption Not encrypted	KMS key ID -	KMS key alias -	KMS key ARN -
Fast snapshot restore -	Description copy-this-is snapshot-of-our-volume		

- Go to **Snapshots** of that region
- Here we can see that details of snapshot which in another region.

The screenshot shows the AWS EC2 Management Console. In the left sidebar, under 'Instances', 'Instances' is selected. The main pane displays a table titled 'Instances (1/1)'. The table has columns: Name, Instance ID, Instance state, Instance type, Status check, Alarm status, Availability Zone, and Public IP. A single row is present, with the 'Name' column containing 'instance-in-ohio' and the 'Availability Zone' column containing 'us-east-2a'. Both columns are highlighted with red boxes. Below the table, a detailed view for the instance 'i-07d56a6a3fd394d16 (instance-in-ohio)' is shown. The 'Instance state' field is highlighted with a red box and shows 'Running'. Other details include Public IPv4 address (3.135.217.228), Private IPv4 address (172.31.8.89), Public IPv4 DNS (ec2-3-135-217-228.us-east-2.compute.amazonaws.com), and VPC ID (vpc-0d530da491583e01c).

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IP
instance-in-ohio	i-07d56a6a3fd394d16	Running	t2.micro	2/2 checks passed	No alarms	us-east-2a	ec2-3-135-217-228.us-east-2.compute.amazonaws.com

Instance: i-07d56a6a3fd394d16 (instance-in-ohio)

Instance ID i-07d56a6a3fd394d16 (instance-in-ohio)	Public IPv4 address 3.135.217.228 open address	Private IPv4 addresses 172.31.8.89
IPv6 address -	Instance state Running	Public IPv4 DNS ec2-3-135-217-228.us-east-2.compute.amazonaws.com open address
Hostname type IP name: ip-172-31-8-89.us-east-2.compute.internal	Private IP DNS name (IPv4 only) ip-172-31-8-89.us-east-2.compute.internal	Answer private resource DNS name IPv4 (A)
Instance type t2.micro	Elastic IP addresses -	VPC ID vpc-0d530da491583e01c
AWS Compute Optimizer finding	IAM Role	Subnet ID

- Now we have created instance in that region in which you have copied snapshot.
- But note down that **availability zone** in which your instance is created.

Screenshots | EC2 Management Console | Connect to instance | EC2 Metrics | i-088c5bb437be8a730 (Practicing) | EC2 Management Console | Billing Management Console | Volumes | EC2 Management Console | + | - | X

us-east-2.console.aws.amazon.com/ec2/v2/home?region=us-east-2#Schemas:

Apps Google Satisch DevOps Engg SOCIAL New folder Backlink Google YouTube Marathi Typing | En... Majhi Naukri | माझी... WhatsApp Other bookmarks Reading list

AWS Services Search for services, features, blogs, docs, and more [Alt+S]

Instances New
Instance Types
Launch Templates
Spot Requests
Savings Plans
Reserved Instances New
Dedicated Hosts
Capacity Reservations

Images AMIs New
AMI Catalog

Elastic Block Store Volumes New
Snapshots New **Snapshot** Lifecycle Manager New

Network & Security Security Groups
Elastic IPs
Placement Groups
Key Pairs

Snapshots (1/1)

Owned by me Filter snapshots by attributes and tags

Name	Snapshot ID	Size	Description	Storage...	Snapshot status	Started
-	snap-01a2aaab01592c15d	5 GiB	copy-this-is-snapshot-of-o...	Standard	Completed	2022/02/21 18:58 GMT+5:30

Snapshot ID: snap-01a2aaab01592c15d

Details	Permissions	Storage tier	Tags
Snapshot ID snap-01a2aaab01592c15d	Size 5 GiB	Progress Available (100%)	Snapshot status Completed
Owner 876283541003	Volume ID vol-ffffffff	Started Mon Feb 21 2022 18:58:43 GMT+0530 (India Standard Time)	Product codes -
Encryption Not encrypted	KMS key ID -	KMS key alias -	KMS key ARN -
Fast snapshot restore -	Description copy-this-is-snapshot-of-our-volume		

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- Now go to snapshot

The screenshot shows the AWS EC2 Management Console interface. The left sidebar is collapsed, and the main area displays a table titled "Snapshots (1/1)" with one item listed. The item has a checkmark next to it and is labeled "snap-01a2aab01592c15d". The table columns include Name, Snapshot ID, Size, Description, Storage..., and Snapshot status. The status is "Completed". To the right of the table, there is a "Actions" dropdown menu with several options: "Create snapshot" (highlighted with a red box), "Create volume from snapshot" (also highlighted with a red box), "Create image from snapshot", "Copy snapshot", "Modify permissions", "Manage fast snapshot restore", "Archive snapshot", "Restore snapshot from archive", "Change restore period", "Delete snapshot", and "Manage tags". Below the table, a detailed view for the selected snapshot is shown under the heading "Snapshot ID: snap-01a2aab01592c15d". This view includes tabs for Details, Permissions, Storage tier, and Tags. The Details tab displays information such as Snapshot ID, Size (5 GiB), Progress (Available 100%), Owner (876283541003), Volume ID (vol-ffffffff), Started (Mon Feb 21 2022 18:58:43 GMT+0530 (India Standard Time)), Encryption (Not encrypted), KMS key ID (-), KMS key alias (-), Fast snapshot restore (-), and Description (copy-this-is-snapshot-of-our-volume). The bottom of the page includes standard AWS navigation links like Feedback, English (US), Privacy, Terms, and Cookie preferences, along with system status icons.

- Click on **Actions**
- then click on **Create volume from snapshot**

The screenshot shows the AWS EC2 Management Console with the URL us-east-2.console.aws.amazon.com/ec2/v2/home?region=us-east-2#CreateVolumeFromSnapshot:snapshotId=snap-01a2aaab01592c15d. The page is titled "Create volume" and displays "Volume settings". The "Snapshot ID" is set to "snap-01a2aaab01592c15d". The "Volume type" is "General Purpose SSD (gp2)". The "Size (GiB)" is set to "5". The "IOPS" value is "100 / 3000". The "Throughput (MiB/s)" is "Not applicable". The "Availability Zone" dropdown is visible at the bottom. The browser's address bar also shows the snapshot ID.

- You can increase volume size but not able to decreased.
- Then scroll down

The screenshot shows the 'Create volume' wizard in the AWS Management Console. The current step is 'Step 2: Select volume type'. A red box highlights the 'Availability Zone' dropdown menu, which is set to 'us-east-2a'. Other options shown include 'Fast snapshot restore' (disabled) and 'Encryption' (disabled). Below these sections is a 'Tags - optional' section with an 'Add tag' button and a note about adding up to 50 tags. At the bottom are 'Cancel' and 'Create volume' buttons.

- Then select same **Availability Zone** in which you have created your instance
- Then click on **create volume**

The screenshot shows the AWS EC2 Management Console interface. At the top, there are several tabs: 'Schemas | EC2 Management' (active), 'Instances | EC2 Management', 'i-088c5bb437be8a730 (Prac...', 'EC2 Management Console', 'Billing Management Console', 'Volumes | EC2 Management', and others. Below the tabs, the URL is 'us-east-2.console.aws.amazon.com/ec2/v2/home?region=us-east-2#Schemas:'.

The main content area has a success message: 'Successfully created volume vol-0405f2075a68ccbd0.' This message is highlighted with a red box. Below it, the 'Schemas (1)' section is displayed. The table has columns: Name, Snapshot ID, Size, Description, Storage..., Snapshot status, and Started. One row is shown:

Name	Snapshot ID	Size	Description	Storage...	Snapshot status	Started
-	snap-01a2aab01592c15d	5 GiB	copy-this-is snapshot-of-o...	Standard	Completed	2022/02/21 18:58 GMT+5:...

Below the table, a message says 'Select a snapshot above.' There are also three small icons at the bottom right of the table area.

The left sidebar contains navigation links for EC2 Dashboard, EC2 Global View, Events, Tags, Limits, Instances (with sub-links for Instances, Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Capacity Reservations), Images (with sub-links for AMIs, AMI Catalog), and Elastic Block Store.

The bottom of the screen includes a footer with links for Feedback, English (US), Privacy, Terms, and Cookie preferences. It also shows system information like '© 2022, Amazon Internet Services Private Ltd. or its affiliates.', '7:16 PM 2/21/2022', and language settings 'ENG IN'.

- Here we can see that our volume is created successfully.

The screenshot shows the AWS EC2 Management Console interface. The left sidebar navigation includes '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), 'Load Balancing' (Load Balancers, Target Groups), and 'Auto Scaling' (Launch Configurations). The 'Elastic Block Store' section is expanded, and 'Volumes' is selected, highlighted with a red box.

The main content area displays the 'Volumes (1/2)' list. A table shows two volumes:

Name	Volume ID	Type	Size	IOPS	Snapshot	Availability Zone	Volume state	Alarm stat
instance-in-ohio	vol-060f7fa1eb367c3ea	gp2	8 GiB	100	snap-0044dfb...	us-east-2a	In-use	No alarms
-	vol-0405f2075a68ccbd0	gp2	5 GiB	100	snap-01a2aaa...	us-east-2a	Available	No alarms

A specific volume, 'vol-0405f2075a68ccbd0', is selected and shown in a detailed view. The 'Details' tab is active. The volume information is summarized in a table:

Volume ID vol-0405f2075a68ccbd0	Size 5 GiB	Type gp2	Volume status Okay
Volume state Available	IOPS 100	Throughput -	Encryption Not encrypted
KMS key ID -	KMS key alias -	KMS key ARN -	Snapshot snap-01a2aaab01592c15d
Availability Zone us-east-2a	Created Mon Feb 21 2022 19:16:02 GMT+0530 (India Standard Time)	Multi-Attach enabled No	Attached Instances -

At the bottom of the screen, there are links for 'Feedback', 'English (US)', 'Privacy', 'Terms', and 'Cookie preferences'. The system status bar shows 'ENG IN', '7:17 PM 2/21/2022', and a notification count of 3.

- Here we can see that our instance and volume are in same zone
- And it is **available** to use.

The screenshot shows the AWS EC2 Management Console with the 'Volumes' page open. The left sidebar includes sections for 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), Load Balancing (Load Balancers, Target Groups), and Auto Scaling (Launch Configurations). The main area displays a table of volumes, with one row selected. The selected volume is a 5 GiB gp2 type located in the us-east-2a availability zone. The 'Actions' menu is open, and the 'Attach volume' option is highlighted with a red box. The 'Details' tab is selected in the bottom panel, showing the volume's configuration.

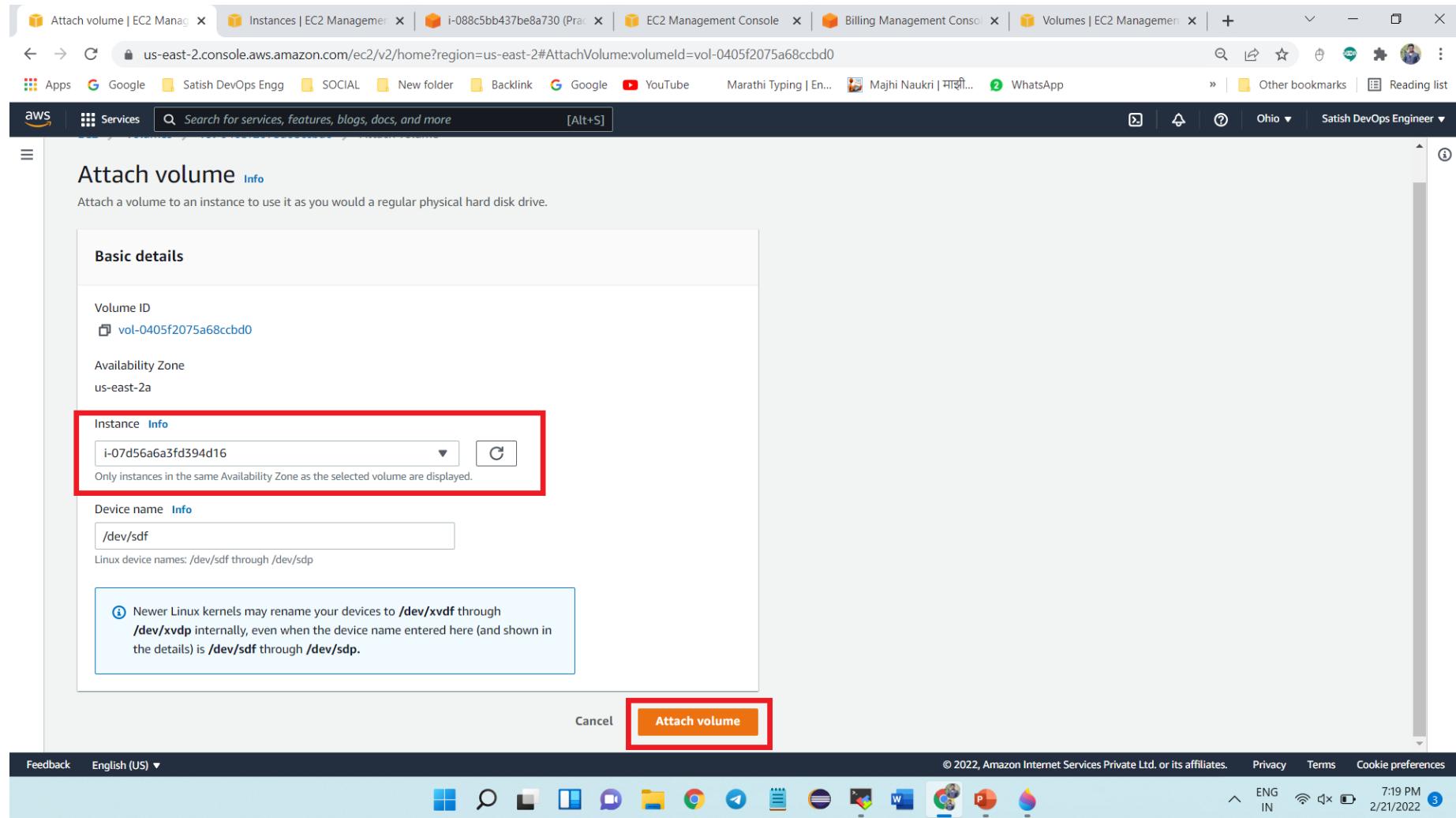
Name	Volume ID	Type	Size	IOPS	Snapshot	Availability Zone
instance-in-ohio	vol-060f7fa1eb367c3ea	gp2	8 GiB	100	snap-0044dfb...	us-east-2a
-	vol-0405f2075a68ccbd0	gp2	5 GiB	100	snap-01a2aaa...	us-east-2a

Volume ID: vol-0405f2075a68ccbd0

Details

Volume ID vol-0405f2075a68ccbd0	Size 5 GiB	Type gp2	Volume status Okay
Volume state Available	IOPS 100	Throughput -	Encryption Not encrypted
KMS key ID -	KMS key alias -	KMS key ARN -	Snapshot snap-01a2aaab01592c15d
Availability Zone us-east-2a	Created Mon Feb 21 2022 19:16:02 GMT+0530 (India Standard Time)	Multi-Attach enabled No	Attached Instances -

- Now select that 5GB volume
- Click on Actions
- Click on Attach Volume



- Select that instance
- Then click on **Attach volume**

The screenshot shows the AWS EC2 Management Console interface. The top navigation bar includes tabs for Volumes, Instances, and Billing Management. The main content area displays a success message: "Successfully attached volume vol-0405f2075a68ccbd0 to instance i-07d56a6a3fd394d16." Below this, a table lists volumes, with one row selected and highlighted by a red box. The table columns include Name, Volume ID, Type, Size, IOPS, Snapshot, Availability Zone, and Volume state. The selected volume, "vol-0405f2075a68ccbd0", is attached to the instance "i-07d56a6a3fd394d16" in the "us-east-2a" availability zone and is marked as "In-use". A detailed view of this volume is shown below, including its volume ID, size, type, and status.

Name	Volume ID	Type	Size	IOPS	Snapshot	Availability Zone	Volume state
instance-in-ohio	vol-060f7fa1eb367c3ea	gp2	8 GiB	100	snap-0044dfb...	us-east-2a	In-use
-	vol-0405f2075a68ccbd0	gp2	5 GiB	100	snap-01a2aaa...	us-east-2a	In-use

Volume ID: vol-0405f2075a68ccbd0

Details | Status checks | Monitoring | Tags

Details

Volume ID vol-0405f2075a68ccbd0	Size 5 GiB	Type gp2	Volume status Okay
Volume state In-use	IOPS 100	Throughput -	Encryption Not encrypted
KMS key ID -	KMS key alias -	KMS key ARN -	Snapshot snap-01a2aab01592c15d
Availability Zone Created		Multi-Attach enabled	Attached Instances

- Here we can see that volume is attached to that instance

**Now we are going to login into
our instance by using
MobaxTerm**

ec2-user@ip-172-31-8-89:~

Terminal Sessions View Xserver Tools Games Settings Macros Help

Session Servers Tools Games Sessions View Split MultiExec Tunneling Packages Settings Help

X server Exit

2. root@ip-172-31-33-156:21feb 4. ec2-user@ip-172-31-8-89:~

• MobaXterm Personal Edition v21.5 •
(X server, SSH client and network tools)

- Your computer drives are accessible through the `/drives` path
- Your `DISPLAY` is set to `192.168.0.105:0.0`
- When using `SSH`, your remote `DISPLAY` is automatically forwarded
- Your `HOME` folder is not persistent: it will be erased on restart
- Each command status is specified by a special symbol (✓ or ✗)

• Important:
This is MobaXterm Personal Edition. The Professional edition allows you to customize MobaXterm for your company: you can add your own logo, your parameters, your welcome message and generate either an MSI installation package or a portable executable.
We can also modify MobaXterm or develop the plugins you need.
For more information: <https://mobaxterm.mobatek.net/download.html>

```
21/02/2022 19:23.10 /home/mobaxterm cd desktop/keys

21/02/2022 19:23.30 /home/mobaxterm/desktop/keys ssh -i "ohio-instance.pem" ec2-user@ec2-3-135-217-228.us-east-2.compute.amazonaws.com
X11 forwarding request failed on channel 0

_|_(_|_) / Amazon Linux 2 AMI
__|_\_|_|

https://aws.amazon.com/amazon-linux-2/
3 package(s) needed for security, out of 6 available
Run "sudo yum update" to apply all updates.
[ec2-user@ip-172-31-8-89 ~]$
```

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- Here instance is in Ohio



```
[ec2-user@ip-172-31-8-89 ~]$ sudo su -
[ec2-user@ip-172-31-8-89 ~]# cd /
[ec2-user@ip-172-31-8-89 /]# lsbblk
NAME   MAJ:MIN RM SIZE RO TYPE MOUNTPOINT
xvda   202:0    0  8G  0 disk
└─xvda1 202:1    0  8G  0 part /
xvdf   202:80   0  5G  0 disk
[ec2-user@ip-172-31-8-89 /]#
[ec2-user@ip-172-31-8-89 /]# mkdir ohio
[ec2-user@ip-172-31-8-89 /]#
[ec2-user@ip-172-31-8-89 /]# mount /dev/xvdf /ohio
[ec2-user@ip-172-31-8-89 /]#
[ec2-user@ip-172-31-8-89 /ohio]# cd ohio
[ec2-user@ip-172-31-8-89 ohio]# ls -ltr
total 32
drwx----- 2 root root 16384 Feb 21 13:11 lost+found
-rw-r--r-- 1 root root     0 Feb 21 13:14 4
-rw-r--r-- 1 root root     0 Feb 21 13:14 3
-rw-r--r-- 1 root root     0 Feb 21 13:14 2
-rw-r--r-- 1 root root     0 Feb 21 13:14 1
drwxr-xr-x 2 root root  4096 Feb 21 13:14 A
drwxr-xr-x 2 root root  4096 Feb 21 13:14 D
drwxr-xr-x 2 root root  4096 Feb 21 13:14 C
drwxr-xr-x 2 root root  4096 Feb 21 13:14 B
[ec2-user@ip-172-31-8-89 ohio]#
```

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- Use above commands to mount our volume which is created by using snapshot
- Here we can see that our all data is still in that volume.

**Now we will how to make snapshot of
volume from one AWS Account to
another AWS Account**

The screenshot shows the AWS EC2 Management Console with the following details:

- Sidebar (Left):** Includes links for Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, 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).
- Header:** Shows the URL us-east-2.console.aws.amazon.com/ec2/v2/home?region=us-east-2#Solutions.
- Table Header (Top):** Contains columns for Snapshot ID, Name, Size, Description, Storage tier, Snapshot status, and Started.
- Table Data:** One row is shown with Snapshot ID `snap-01a2aaab01592c15d`, Name `-`, Size `5 GiB`, Description `copy-this-is snapshot-of-o...`, Storage tier `Standard`, Snapshot status `Completed`, and Started `2022/02/21 18:58 GMT+5:30`.
- Actions (Top Right):** An orange "Actions" button with a dropdown arrow is highlighted with a red box.
- Snapshot Details (Bottom):** A detailed view for Snapshot ID `snap-01a2aaab01592c15d`. It includes fields for Details, Permissions, Storage tier, and Tags. The Details tab is selected, showing:
 - Snapshot ID:** snap-01a2aaab01592c15d
 - Size:** 5 GiB
 - Progress:** Available (100%)
 - Snapshot status:** Completed
 - Owner:** 876283541003
 - Volume ID:** vol-ffffffff
 - Started:** Mon Feb 21 2022 18:58:43 GMT+0530 (India Standard Time)
 - Product codes:** -
 - Encryption:** Not encrypted
 - KMS key ID:** -
 - KMS key alias:** -
 - KMS key ARN:** -
 - Fast snapshot restore:** -
 - Description:** copy-this-is snapshot-of-our-volume

- Go to Snapshots
- Then click on Actions

The screenshot shows the AWS EC2 Management Console with the 'Schemas' tab selected. The main area displays a table of snapshots, with one row selected. A context menu is open over this selected row, and the 'Modify permissions' option is highlighted with a red box.

Snapshots (1/1)

Name	Snapshot ID	Size	Description	Storage...	Snapshot st...
-	snap-01a2aaab01592c15d	5 GiB	copy-this-is-snapshot-of-o...	Standard	Completed

Actions

- Create volume from snapshot
- Create image from snapshot
- Copy snapshot
- Modify permissions** (highlighted)
- Manage fast snapshot restore
- Archive snapshot
- Restore snapshot from archive
- Change restore period
- Delete snapshot
- Manage tags

Snapshot ID: snap-01a2aaab01592c15d

Details	Permissions	Storage tier	Tags
Snapshot ID snap-01a2aaab01592c15d	Size 5 GiB	Progress Available (100%)	Snapshot status Completed
Owner 876283541003	Volume ID vol-ffffffff	Started Mon Feb 21 2022 18:58:43 GMT+0530 (India Standard Time)	Product codes -
Encryption Not encrypted	KMS key ID -	KMS key alias -	KMS key ARN -
Fast snapshot restore -	Description copy-this-is-snapshot-of-our-volume		

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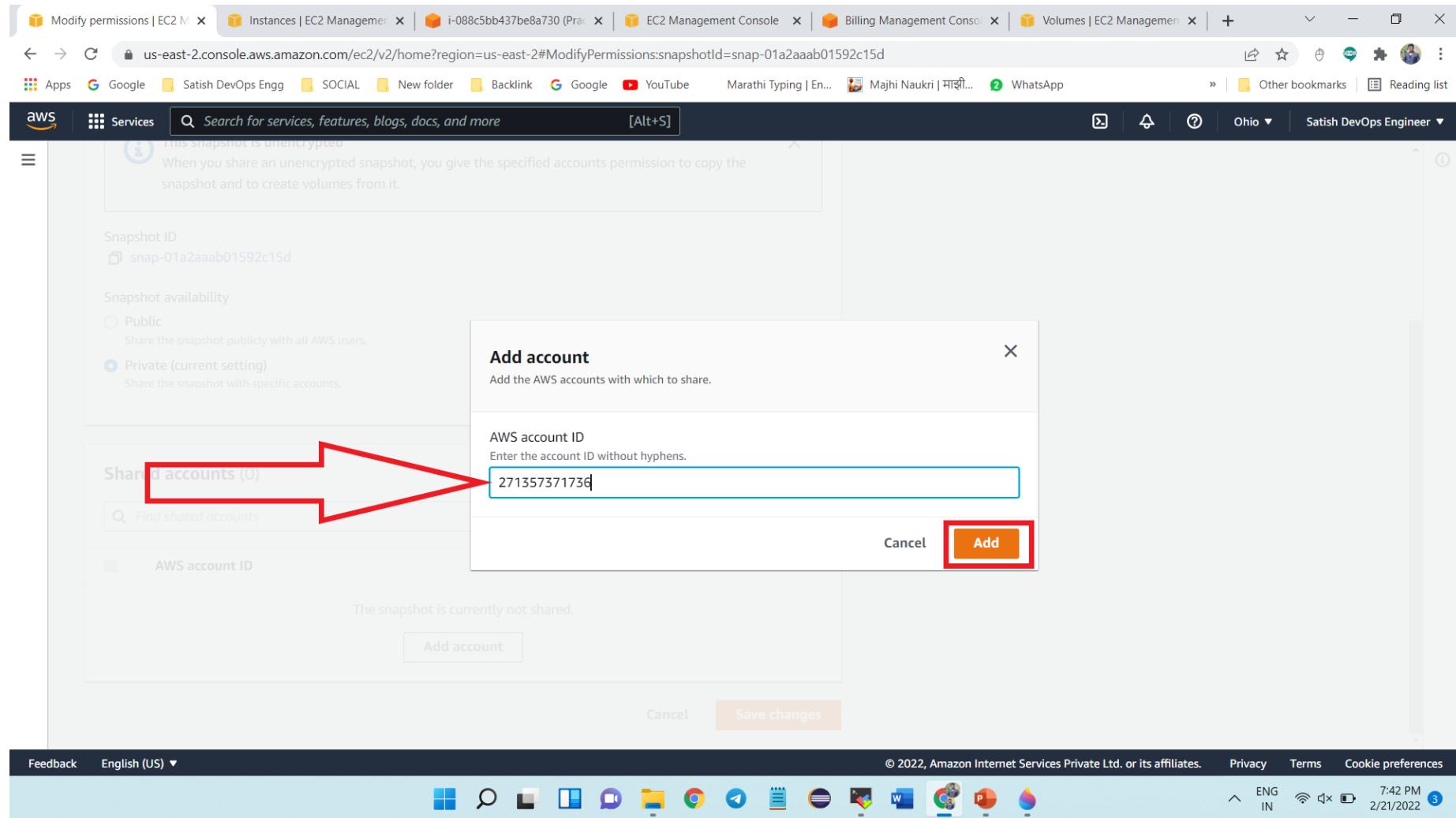
- Click on **Modify Permissions**

The screenshot shows the AWS EC2 Management Console with the URL us-east-2.console.aws.amazon.com/ec2/v2/home?region=us-east-2#ModifyPermissions:snapshotId=snap-01a2aaab01592c15d. The page title is "Modify permissions". The main content area displays a "Settings" section with a warning message: "This snapshot is unencrypted. When you share an unencrypted snapshot, you give the specified accounts permission to copy the snapshot and to create volumes from it." Below this, there are fields for "Snapshot ID" (set to "snap-01a2aaab01592c15d") and "Snapshot availability". The "Private (current setting)" option is selected, with the note "Share the snapshot with specific accounts." At the bottom, there is a "Shared accounts (0)" section with "Remove selected" and "Add account" buttons. The footer includes standard links like Feedback, English (US), Privacy, Terms, and Cookie preferences, along with system status icons.

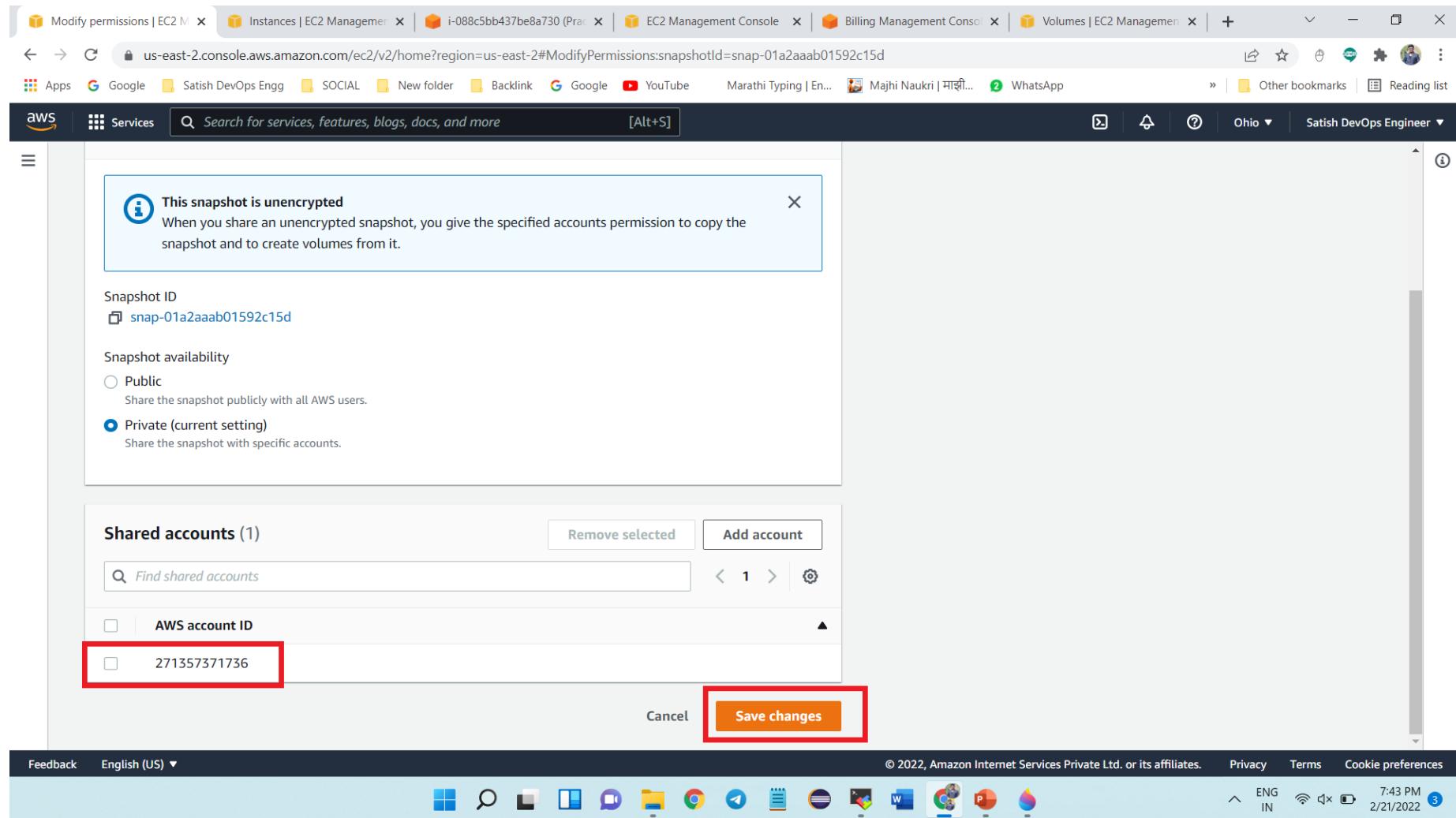
- Scroll down

This screenshot shows the AWS EC2 Management Console interface. The user is on the 'Modify permissions' page for a specific snapshot. A callout box highlights a note stating: 'When you share an unencrypted snapshot, you give the specified accounts permission to copy the snapshot and to create volumes from it.' Below this, the 'Snapshot ID' is listed as 'snap-01a2aaab01592c15d'. The 'Snapshot availability' section shows that the snapshot is currently set to 'Private (current setting)', which is selected. In the 'Shared accounts' section, there are no accounts listed, indicated by '(0)'. There is a search bar labeled 'Find shared accounts' and an 'Add account' button, which is highlighted with a red box. At the bottom of the page, there are 'Cancel' and 'Save changes' buttons. The status bar at the bottom right shows the date as 2/21/2022 and the time as 7:40 PM.

- Click on Add Account



- Add AWS Account ID
- Then click on Add



- Then click on **Save Changes**

The screenshot shows the AWS EC2 Management Console interface. The top navigation bar includes tabs for Snapshots, Instances, and other services like EC2 Management Console, Billing Management Console, and Volumes. The main content area is titled 'Snapshots (1)' and displays a table with one row of data. A prominent red box highlights a message at the top: 'Requested snapshot modification for snapshot snap-01a2aab01592c15d. The snapshot is being modified.' The table columns include Name, Snapshot ID, Size, Description, Storage..., Snapshot status, and Started. The single entry shows 'snap-01a2aab01592c15d' as the Snapshot ID, '5 GiB' as the Size, and 'copy-this-is snapshot-of-o...' as the Description. The status is 'Completed' with a green checkmark, and the start time is '2022/02/21 18:58 GMT+5:...'. On the left sidebar, under the 'Instances' section, there is a link labeled 'Instances New'. The bottom of the screen shows the Windows taskbar with various pinned icons.

- Here we can see that our snapshot is created and its copy is sent to another AWS Account
- Now we can able to make volumes from that snapshot into different AWS Account.

So in this way we have seen that how volume snapshot is created.

Also how volume snapshot is created in different region.

And how volume snapshot is created in another AWS Account.

Thanks for doing practical with us