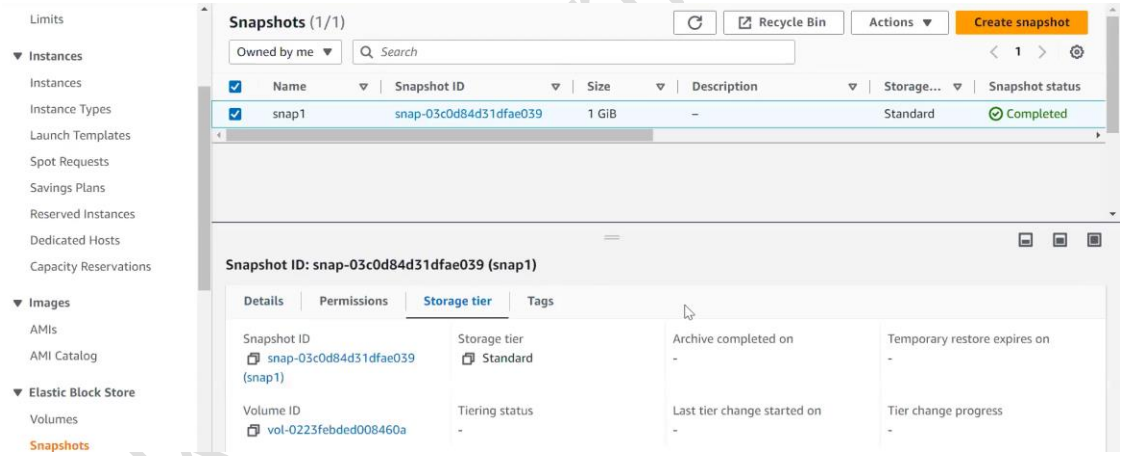
AWS Session

Summary 29th March 2023

- When you create an EBS snapshot in AWS, the snapshot is stored in Amazon S3.

- Amazon Web Services (AWS) offers two storage tiers for snapshots:

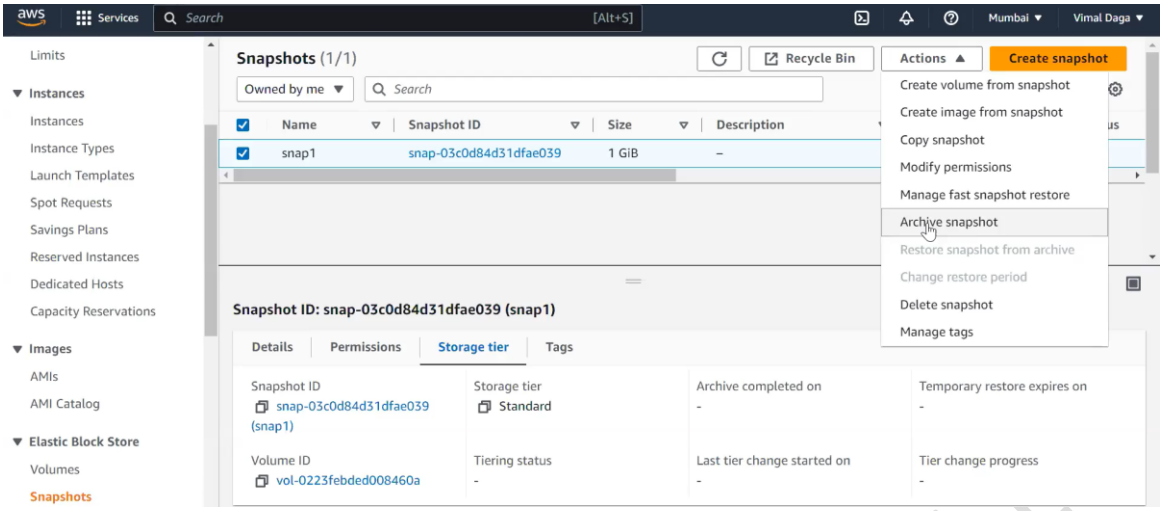
1) **Standard:** This is the default storage tier for snapshots and is suitable for most workloads. It offers **low-latency** access to data and is designed to deliver fast and consistent performance.



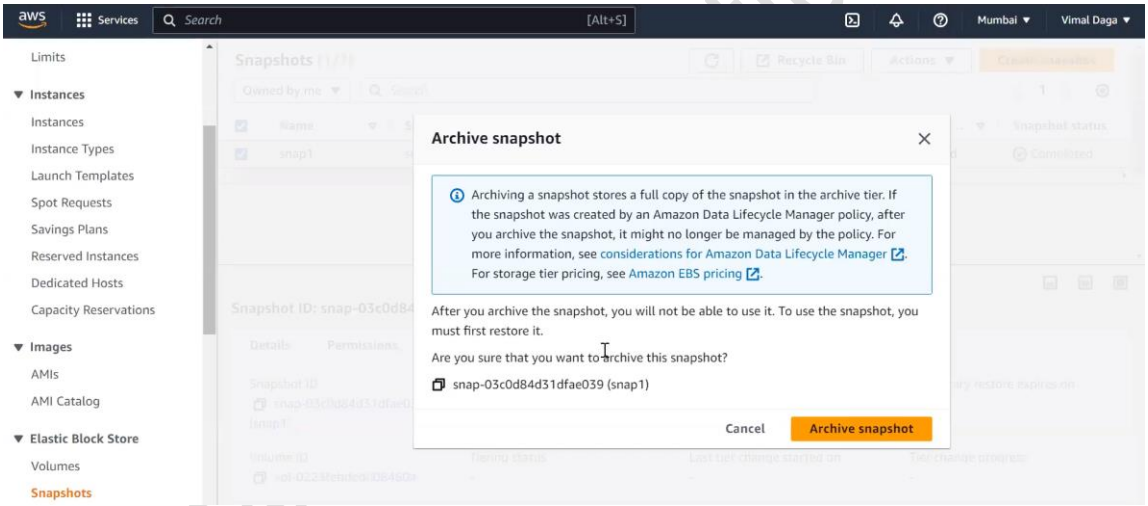
2) **Archive:** This is the **lowest-cost storage** tier for EBS snapshots. Retrieval times for data in Archive can take several hours.

- **To archive an Amazon EBS snapshot, follow these steps:**

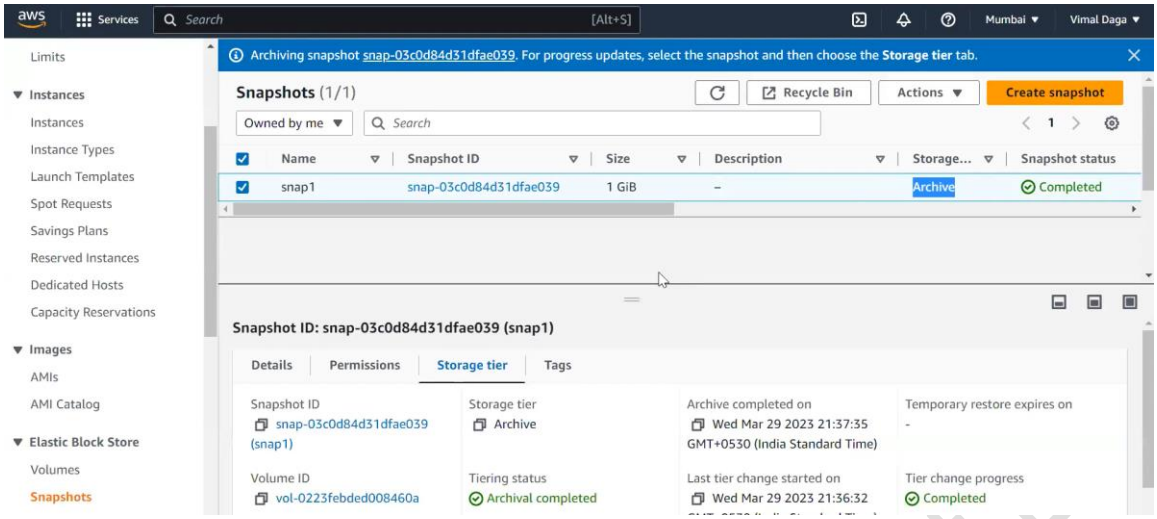
Step 1: Select a snapshot and click on "*Actions*" then choose "*Archive snapshot*".



Step 2: Click on "*Archive snapshot*".



Step 3: Then finally after some time you will see the snapshot is now "Archive".

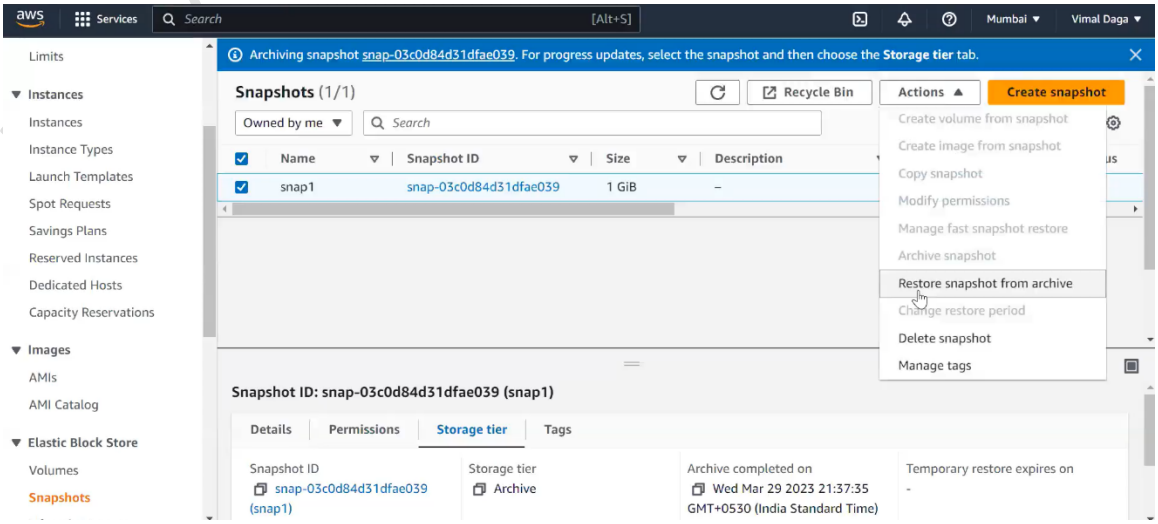


- If an Amazon EBS snapshot is in the archive, it's not immediately available for use, and you need to restore it to a standard snapshot before you can perform certain actions.

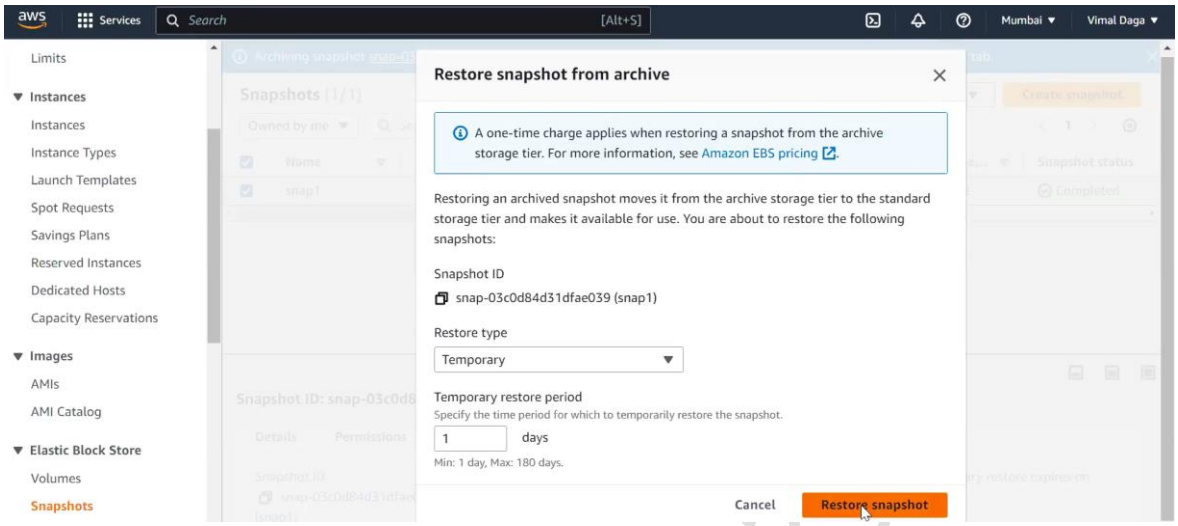
- For example, you cannot create a new volume directly from an archived snapshot. You must first restore the snapshot to a standard snapshot and then create the volume from the standard snapshot.

- **Restore the snapshot from the archive, follow these steps:**

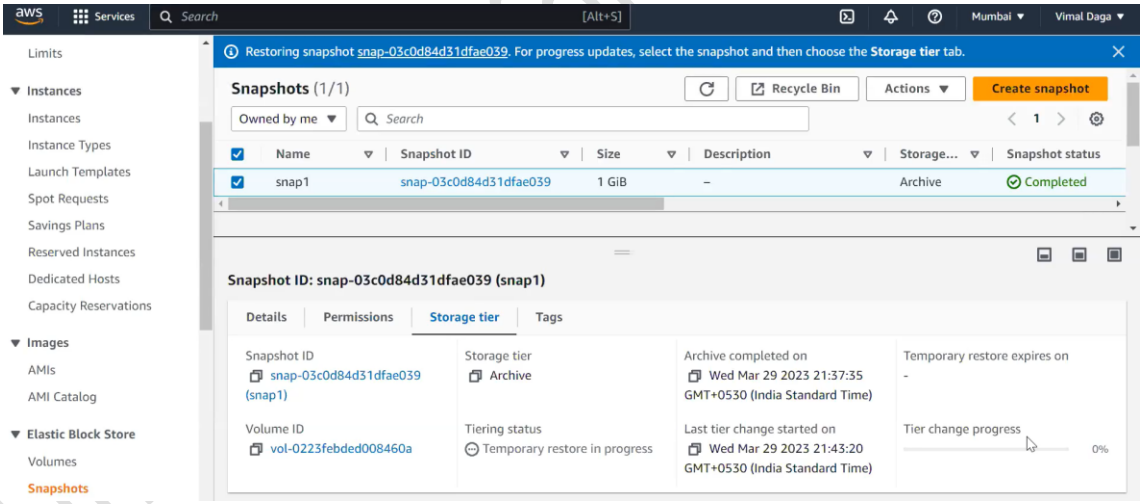
Step 1: Select a snapshot and click on "*Actions*" then choose "*Restore snapshot from archive*".



Step 2: Choose "*Restore type*" and enter "*Temporary restore period*" then click on "*Restore snapshot*".



Finally, you will see the process is in progress.



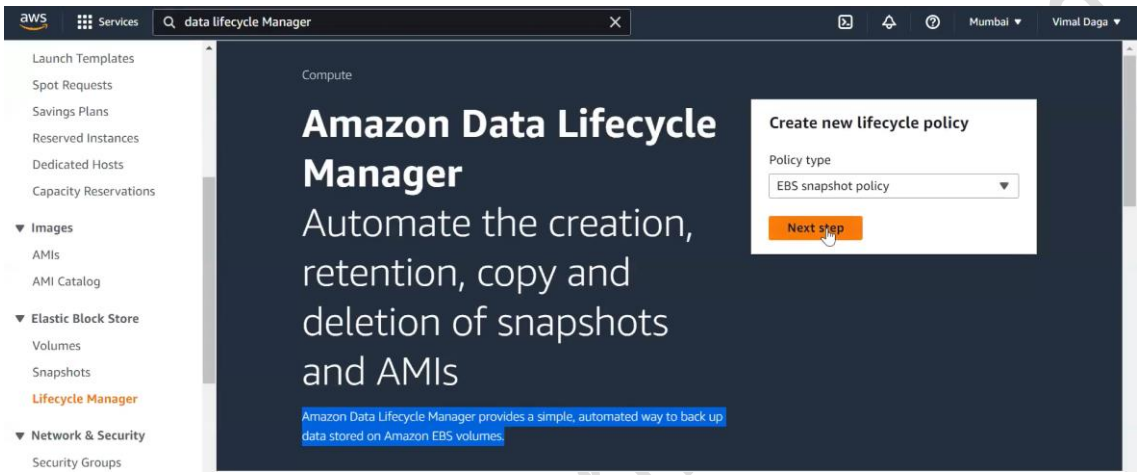
- **Data Lifecycle Manager (DLM):** It is a service that automates the process of creating, retaining, and deleting backups of Amazon Elastic Block Store (EBS) volumes**.**

- You can automate the creation, retention, and deletion of snapshots based on your desired schedule. With DLM, you can create backup policies that define the backup schedule.

- You can also create lifecycle policies that automate the process of deleting old backups that are no longer needed.

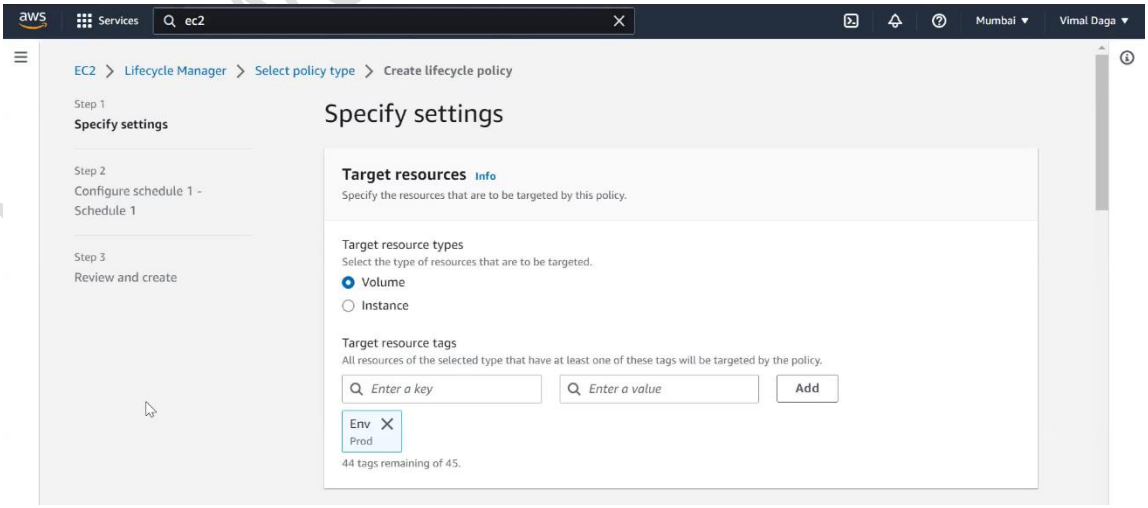
- **To create a new snapshot lifecycle policy, follow these steps:**

Step 1: Choose "*Policy type*" then click on "*Next step*".



Step 2: Choose "*Target resource types*" and select "*Target resource tags*".

Here, we choose the "**Env**" tag, which allows the volume with the "Env" tag to be automatically picked.

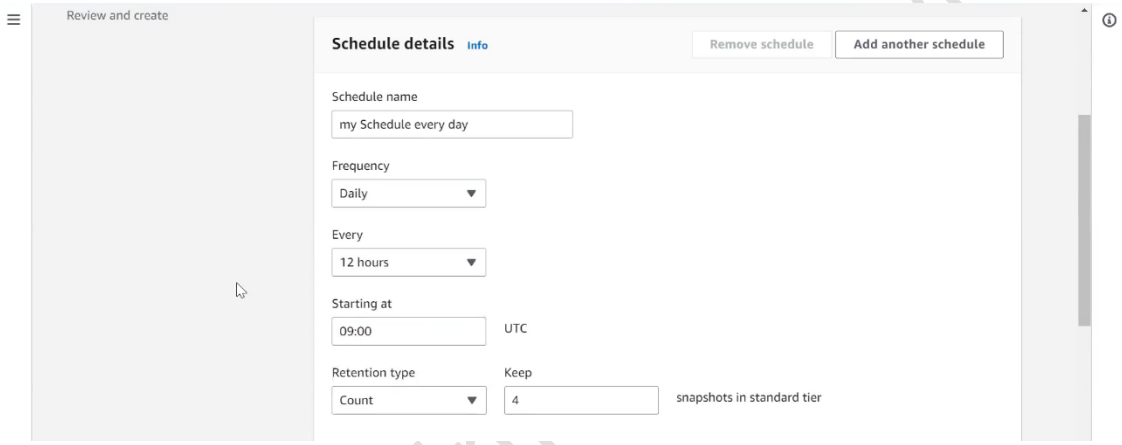


Step 3:

➔ For *Frequency* and the related fields, configure the interval between policy runs. You can configure policy runs on a daily, weekly, monthly, or yearly schedule.

➔ For *Starting at*, specify the time at which the policy runs are scheduled to start.

➔ For the *Retention type*, specify the retention policy for snapshots created by the schedule. You can retain snapshots based on either their total **count** or their **age**.



Once the policy is created, it will automatically apply to the selected EBS volume and create new snapshots accordingly.

- **AWS Backup** is a fully-managed backup service that simplifies the process of backing up data across AWS services.
- AWS Backup makes it easy to centrally manage and automate backups across multiple AWS accounts and regions.
- With AWS Backup, you can create backup plans that specify which resources to back up, how frequently backups should be taken, and how long to retain backups. You can also use AWS Backup to schedule automatic backups of your Amazon Elastic Block Store (EBS) volumes, Amazon Elastic File System (EFS) file systems, and other AWS resources.

- There are different ways to configure an AWS instance, including:

1) **Manual Configuration**
2) **AWS Systems Manager**
3) **User Data**

➔ But, the above takes time. For example, if you configured a web server, it will take some time for configuration after the instance is launched.

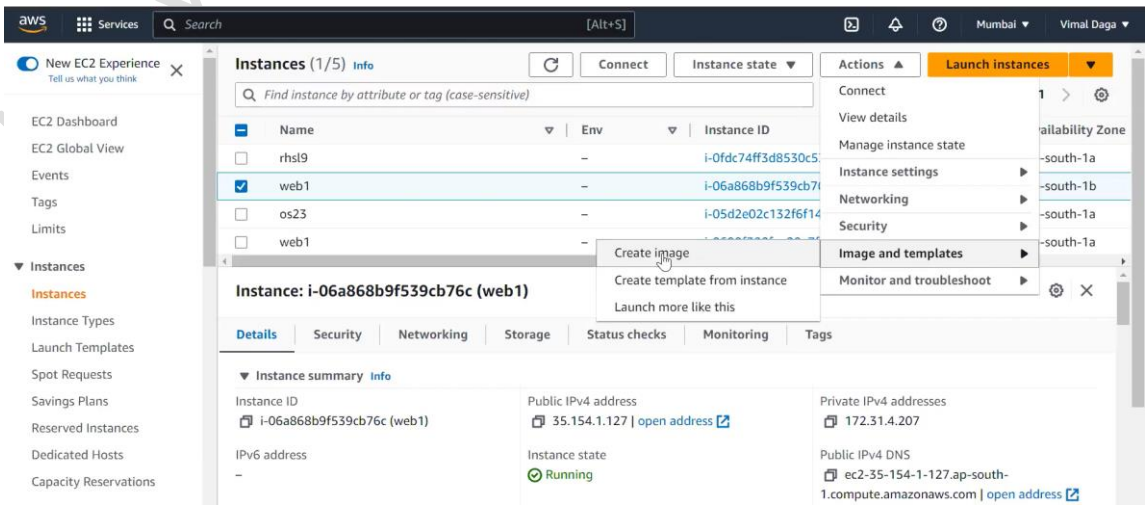
➔ But AMI provides pre-configured all of these things.

4) An **Amazon Machine Image (AMI)** is a pre-configured virtual machine image that you can use to launch an instance. AMIs can be customized with your own software and settings and can be saved as new images to reuse in the future.

- **To create a new custom AMI, follow these steps:**

Step 1: Launch an EC2 instance. Once the instance is running, make the necessary configuration changes, install software, and update the system. For example, configured httpd web server.

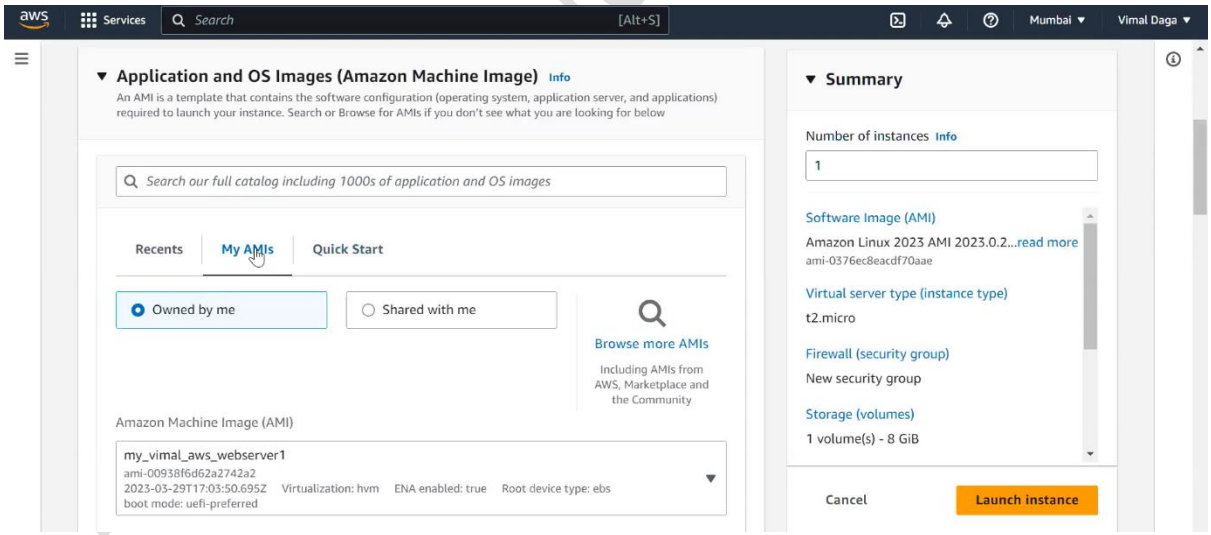
Step 2: Select an instance and click on "*Actions*" then choose "*Image and templates*" -> "*Create image*".



Step 3: Provide a name and description for the image, and enable "*No reboot*".

Step 4: Once you have defined the image details, click "*Create Image*" to create the AMI.

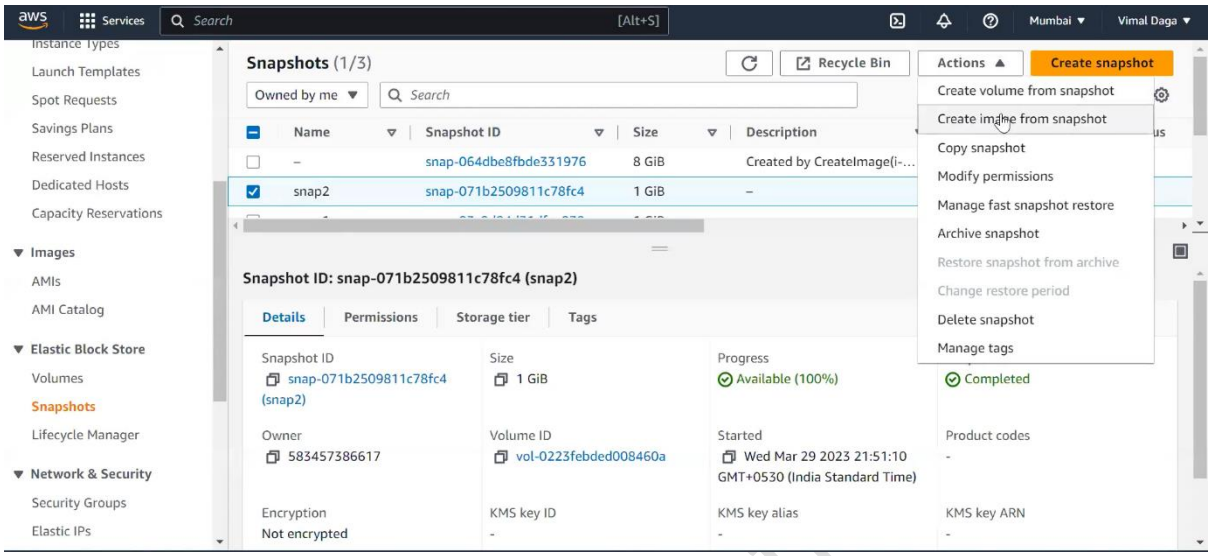
- Now, select AMI from "My AMIs" when you want to create an AWS instance.



- AWS provides multiple ways to create a custom AMI.

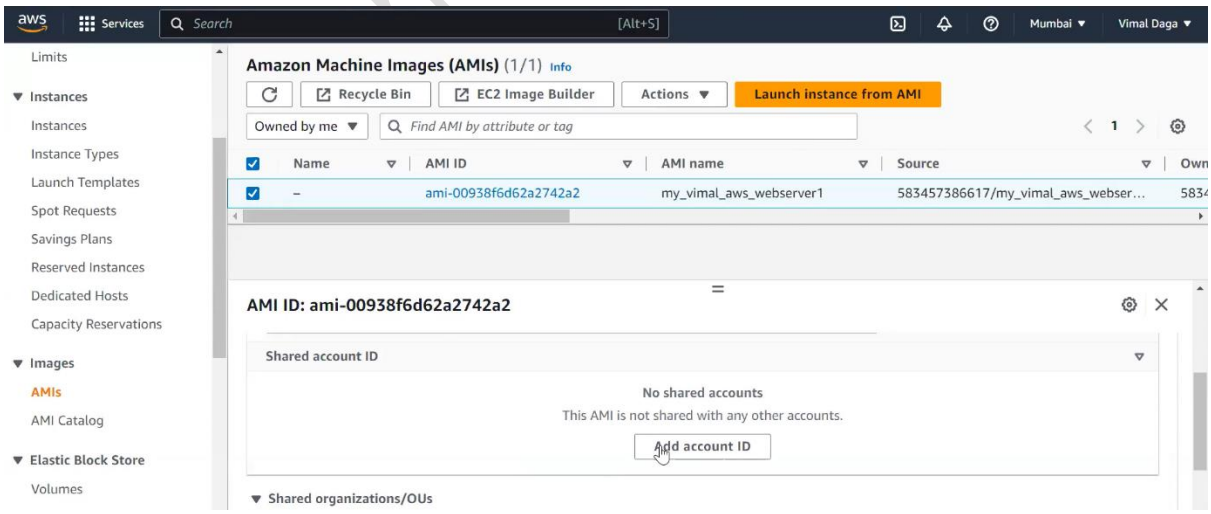
1) Creating an AMI from an instance

2) **Creating an AMI from a snapshot:** This method involves taking a snapshot of an existing instance, customizing it, and then creating an AMI from the snapshot.

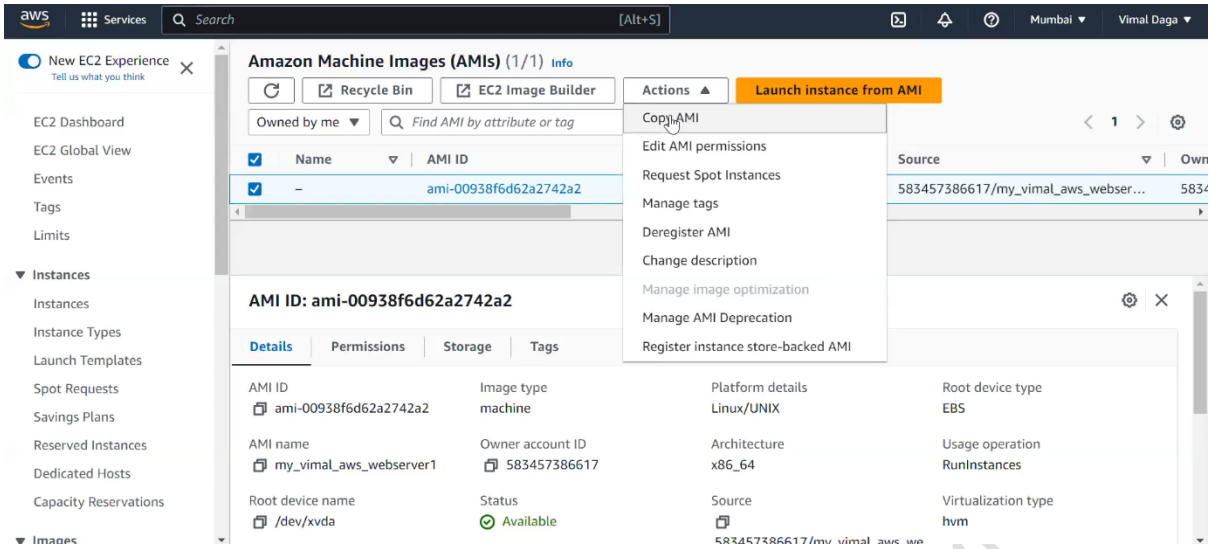


3) **Using EC2 Image Builder**

- **Share AMI with another AWS account:** Just need to add AWS account ID.



- **Copy AMI from current region to another region:**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Tell us what you think
EC2 Dashboard
EC2 Global View
Events
Tags
Limits
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Instances
Instance Types
Launch Templates
Spot Requests
Savings Plans
Reserved Instances
Dedicated Hosts
Capacity Reservations
Images
Amazon Machine Images (AMIs) (1/1) Info
Recycle Bin
EC2 Image Builder
Actions
Launch instance from AMI
Owned by me
Find AMI by attribute or tag
Copy AMI
Edit AMI permissions
Request Spot Instances
Manage tags
Deregister AMI
Change description
Manage image optimization
Manage AMI Deprecation
Register instance store-backed AMI
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Permissions
Storage
Tags
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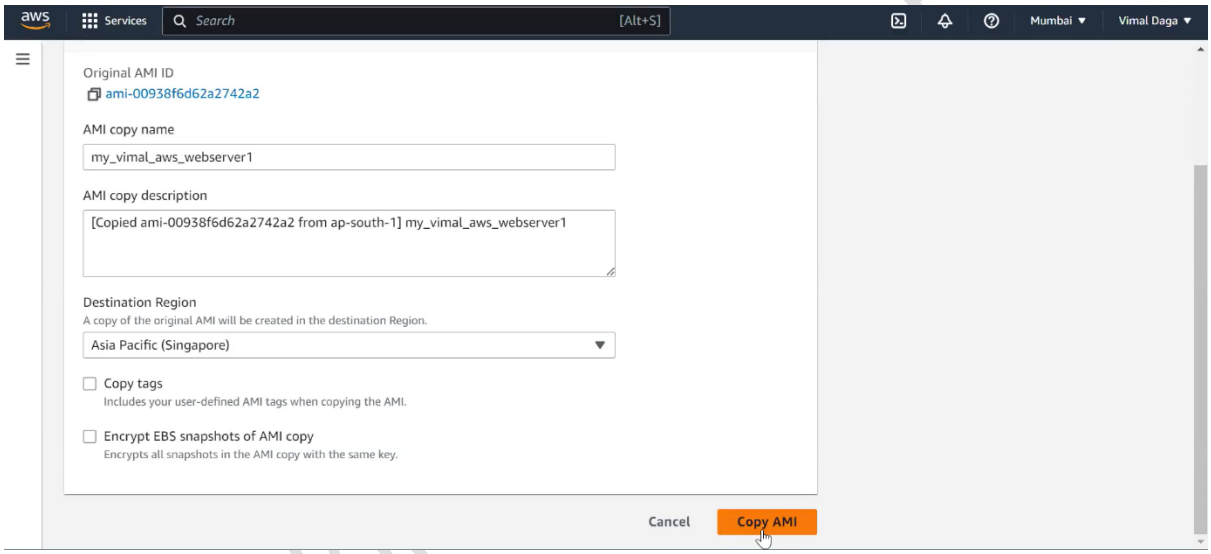
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AMI copy description
[Copied ami-00938f6d62a2742a2 from ap-south-1] my_vimal_aws_webserver1
Destination Region
A copy of the original AMI will be created in the destination Region.
Asia Pacific (Singapore)
Copy tags
Includes your user-defined AMI tags when copying the AMI.
Encrypt EBS snapshots of AMI copy
Encrypts all snapshots in the AMI copy with the same key.
Cancel
Copy AMI