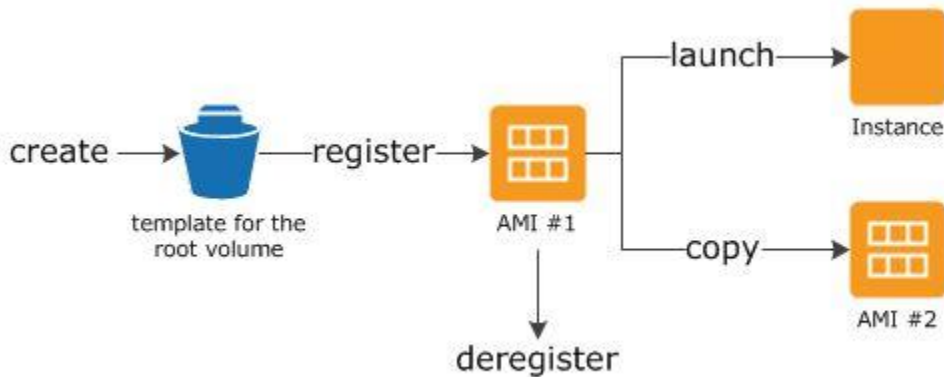


LAB-4 AMI , SNAPSHOTS AND ELASTIC IP'S

We have seen launching windows and linux instances in our previous lab's

This Lab we are going to see how to take AMI (Image of a running instance) its our own custom AMI.



We can create our own AMI of our running instance and launch it later if our current instance fails.

We can share our AMI to another AWS account.

We can copy our AMI to another region.

While creating AMI snapshot also created, it contain the volume of the current disk.

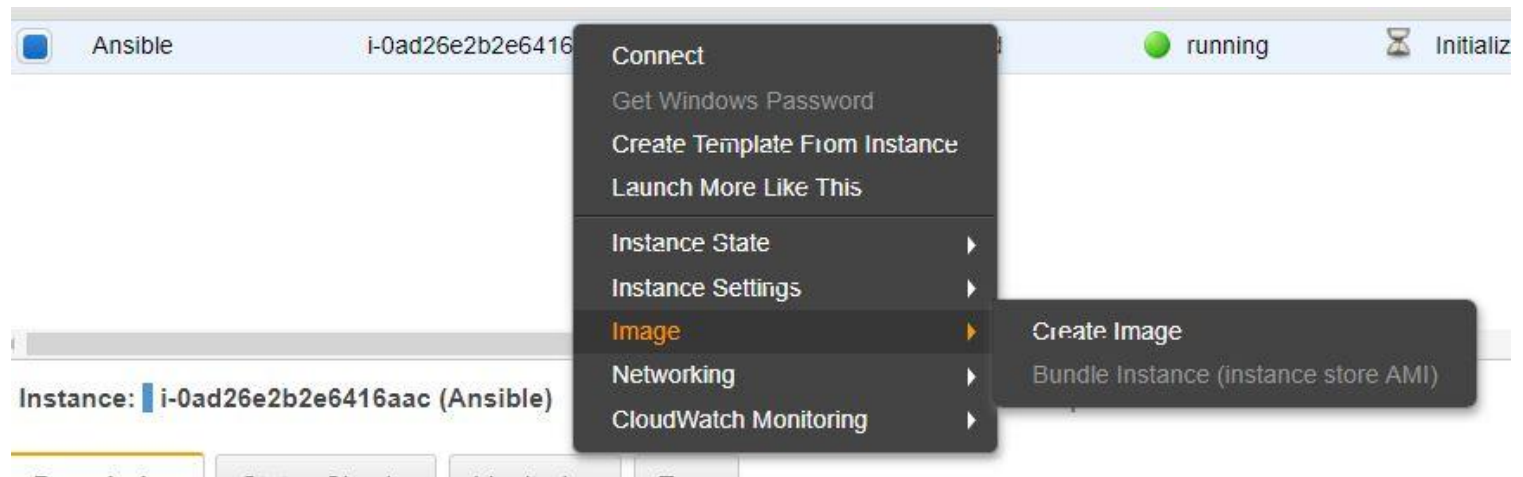
We can shedule our snapshots daily for instances and remove old one.

We can launch instance snapshot by creating image from snapshot.

Follow the below steps for compleating this Lab sessions.

AMI –AMAZON MACHINE IMAGE

Step1: Right click the instance and go to image > create image



Step 2: fill the details of image

Create Image

Instance ID ⓘ

i-0ad26e2b2e6416aac

Instance ID

Image name ⓘ

Ansible

Name : optional

Image description ⓘ

Ami_of_Ansible_server

Description : optional

No reboot ⓘ

☒ check this for taking image even the instance was running

Instance Volumes

Volume Type ⓘ	Device ⓘ	Snapshot ⓘ	Size (GiB) ⓘ	Volume Type ⓘ	IOPS ⓘ	Throughput (MB/s) ⓘ	Delete on Termination ⓘ	Encrypted ⓘ
Root	/dev/sda1	snap-0ac9e6b9d926e36c9	8	General Purpose SSD (gp2)	100 / 3000	N/A	<input checked="" type="checkbox"/>	Not Encrypted

Add New Volume

Total size of EBS Volumes: 8 GiB

Volume Details

When you create an EBS image, an EBS snapshot will also be created for each of the above volumes.

Cancel

Create Image

Create Image

✕

✓

Create Image request received.
[View pending image ami-07f6128075233fcf7](#)

Any snapshots backing your new EBS image can be managed on the [snapshots screen](#) after successful image creation.

Close

Step 3: Check the Status of image once it come to available state the AMI is ready.

Owned by me

search : ami-07f6128075233fcf7

Add filter

1 to 1 of 1

<div></div>	Name	AMI Name	AMI ID	Source	Owner	Visibility	Status	Creation Date
<div></div>		ansible	ami-07f6128075233fcf7	143970739836/...	143970739836	Private	pending	May 13, 2019

<div></div>	Name	AMI Name	AMI ID	Source	Owner	Visibility	Status	Creation Date
<div></div>		ansible	ami-07f6128075233fcf7	143970739836/...	143970739836	Private	available	May 13, 2019

Step 4: now you can launch the instance from Image

	Name	AMI Name	AMI ID	Source	Owner	Visibility	Status	Creation Date
		an	233fcf7	143970739836/...	143970739836	Private	available	May 13, 2019

Launch

Spot Request

Deregister

Register New AMI



Copy AMI

Modify Image Permissions

Add/Edit Tags

Modify Boot Volume Setting

Step5: You Can copy image to another Region

	Name	AMI Name	AMI ID	Source	Owner	Visibility	Status	Creation Date
	an		233fcf7	143970739836/...	143970739836	Private	available	May 13, 2019

Launch

Spot Request

Deregister

Register New AMI

Copy AMI

Modify Image Permissions

Add/Edit Tags

Modify Boot Volume Setting

Copy AMI

AMI ami-07f6128075233fcf7 will be copied to a new AMI. Set the new AMI settings below.

Destination region* Select destination region ▼

Name

Description

Encryption ☐ Encrypt target EBS snapshots ⓘ

Cancel Copy AMI

Step6: You can give permission of your AMI to another account

	Name	AMI Name	AMI ID	Source	Owner	Visibility	Status	Creation Date
	an		233fcf7	143970739836/...	143970739836	Private	available	May 13, 2019

Launch

Spot Request

Deregister

Register New AMI

Copy AMI

Modify Image Permissions

Add/Edit Tags

Modify Boot Volume Setting

Modify Image Permissions

This image is currently: ☐ Public ☒ Private

AWS Account Number

This image currently has no permissions

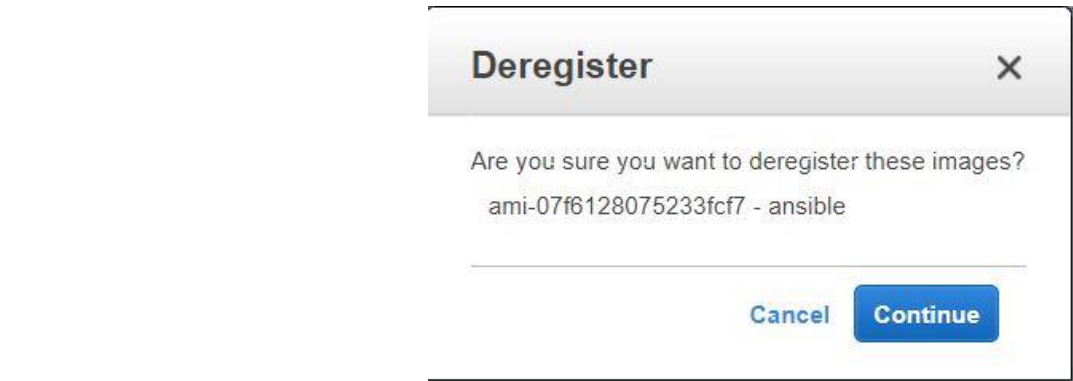
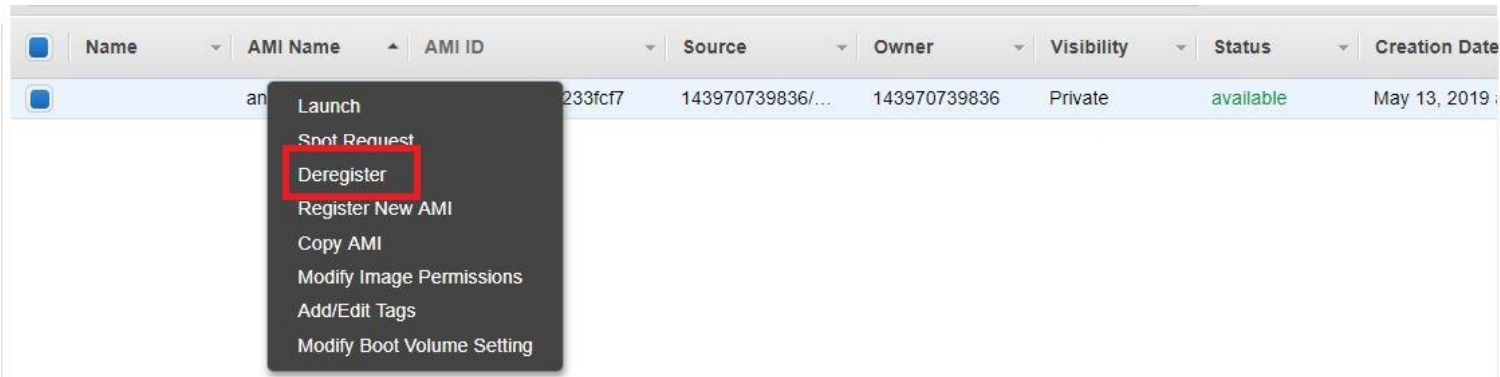
AWS Account Number Add Permission

☐ Add "create volume" permissions to the following associated snapshots when creating permissions:

- snap-06ea6b03d15ab44e2

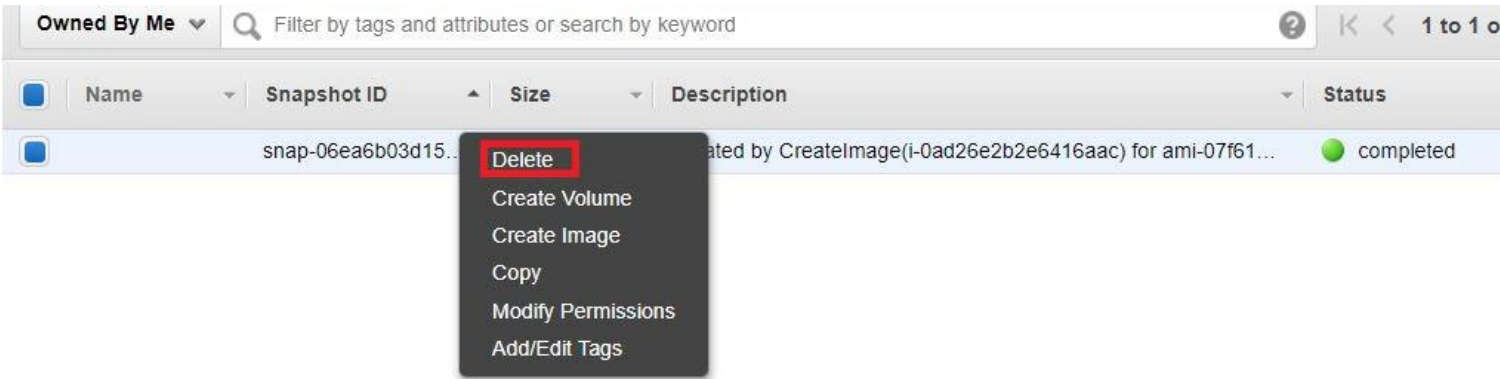
Cancel Save

Step 7: To delete a AMI you have to deregister AMI and then selete snapshot also.



Go To Snapshots

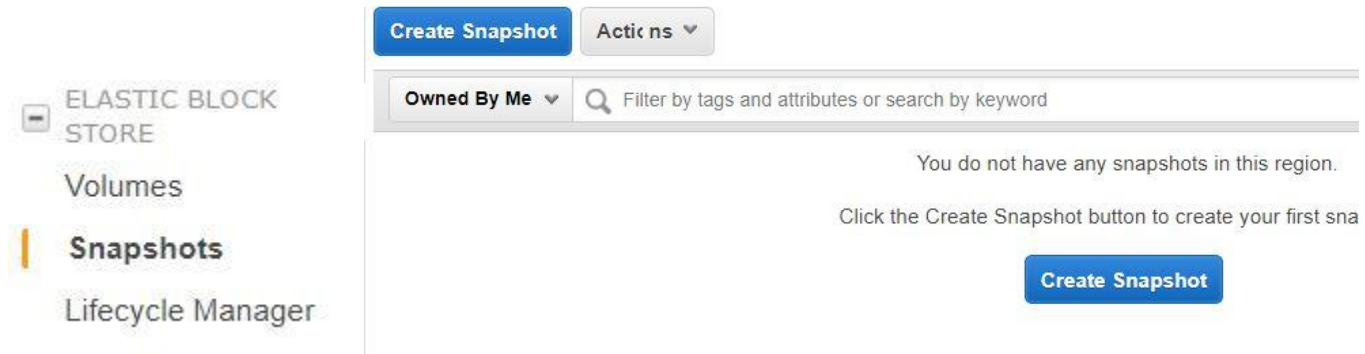
Delete the Snapshot



SNAPSHOTS

We can create a snapshot and we can launch instance from snapshot by creating image.



Step 1: Go to snapshot click create snapshot.





Step2: Give the Volume of instance which needed to take snapshot and other details

[Snapshots](#) > Create Snapshot

Create Snapshot

Volume*  

Description 

Encrypted ☐ Not Encrypted 

Create Snapshot

Volume*  

Description 

Encrypted ☐ Not Encrypted 

Key (127 characters maximum)

Value (255 characters maximum)

This resource currently has no tags

Choose the Add tag button or click to add a Name tag

Add Tag 50 remaining (Up to 50 tags maximum)

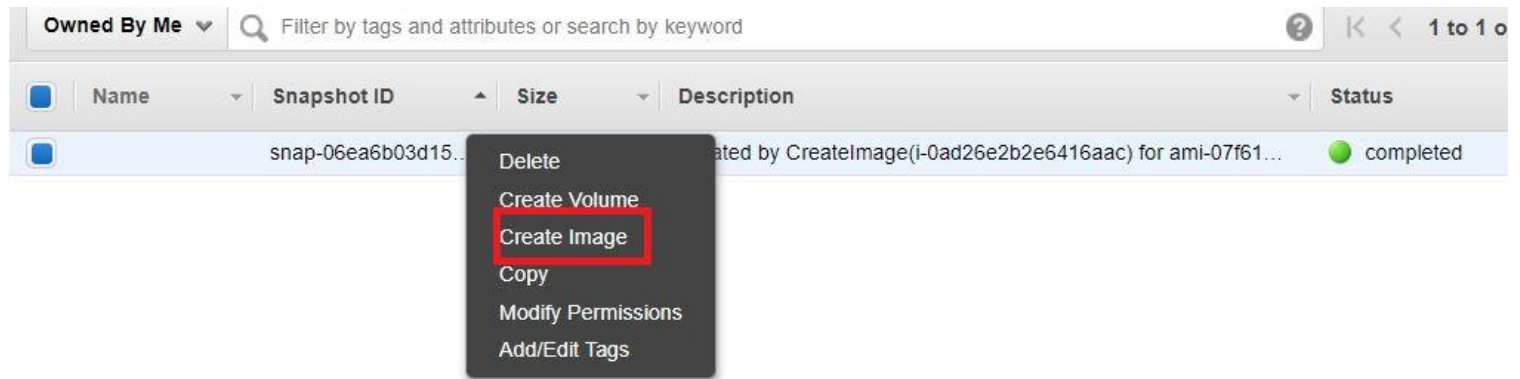
^{*} Required

Cancel

Create Snapshot

Step3: Once you click the **create snapshot** the snapshot created.

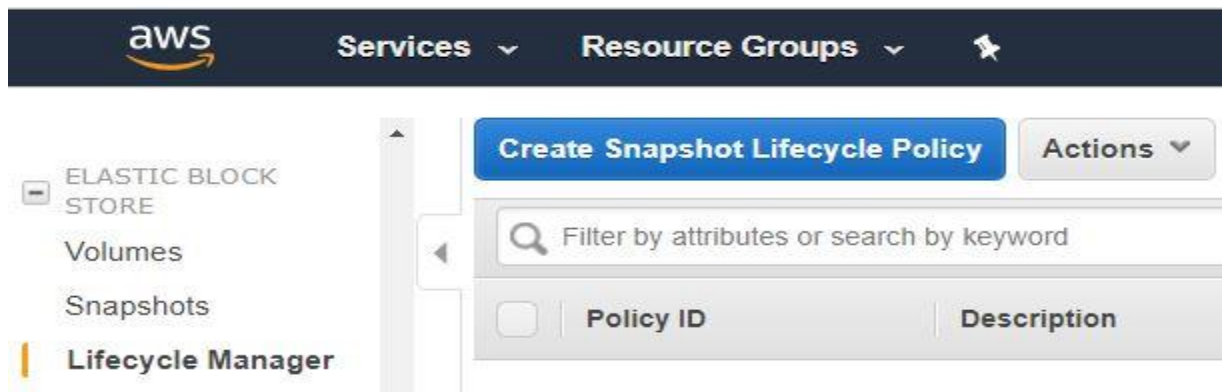
Step4: click create **Image** option to create AMI from snapshot.



Sheduled snapshot – LIFECYCLE POLICY

Step 5: We can shedule time to create snapshot daily.

Click **Life Cycle Manager** and Click **Create Snapshot Lifecycle Policy**.



Provide the Name tag of the instance to be taken snapshot regularly

[Policies](#) > Create Snapshot Lifecycle Policy

Create Snapshot Lifecycle Policy

Data Lifecycle Manager for EBS Snapshots will help you automate the creation and deletion of EBS snapshots based on a schedule. Volumes are targeted by tags.

Description* Optional

Target with these tags This policy will be applied to volumes with **any** of the following tags. You cannot use tags that are in use by another enabled or disabled lifecycle policy.

* Name tag of server need to taken snapshot

Provide Timing details

Policy Schedule

Schedule name*

Default Schedule

i

Name

Run policy every

24

Hours

i

Time gap between each snapshot

Starting at

09 : 00

UTC

i

Starting time its in UTC

Retention rule

Number of snapshots that will be retained.

i

*

1

Number of snapshots should be available

Snapshots start being created within one hour of the specified start time.

Add the naming Tag's

Tagging Information

Tag created EBS snapshots Any snapshot created with this policy will automatically be tagged with the policy ID and schedule name.

Copy Tags from volume ☐

Additional tags	Key (127 characters maximum)	Value (255 characters maximum)
-----------------	------------------------------	--------------------------------

This resource currently has no tags
Choose the Add tag button or [click to add a Name tag](#)

Add Tag

50 remaining (Up to 50 tags maximum)

IAM Role

ADD the IAM role if required

IAM role This policy needs to be associated with an IAM role that has snapshot create and delete permissions, if you are unsure what IAM role to use, select the AWS Default role.

☒ Default role

If EBS default role is not present, one will be automatically created with all needed permissions. [View Default role](#)

☐ Choose another role



Policy Summary

This policy will create a snapshot of all tagged volumes, every **24** hours starting at **09:00** UTC.

A maximum of **1** snapshots will be retained of a target volume.

The oldest snapshot retained will be \leq **24** hours old.

Policy status after creation*



Enable policy



Disable policy

* Required

Cancel

Create Policy

Once the policy created the snapshot will be automatically triggered.

Elastic IP:

Elastic Ip is a purchased Static public ip in AWS we can allocate that to any of our instance.

Step 1: In the navigation pane, choose Elastic Ips and choose **Allocate new address**.

The screenshot shows the AWS VPC Dashboard. In the left-hand navigation pane, the 'Elastic IPs' link is highlighted with a red arrow. In the main content area, the 'Allocate New Address' button is highlighted with a red arrow. Below the button, there is a table with columns for 'Address', 'Instance ID', and 'Network Interface ID'. The table is currently empty, and a message at the bottom says 'Select an address above'.

Step 2: For IPv4 address pool, choose **Amazon pool**.Choose Allocate, and close the confirmation screen.

[Addresses](#) > Allocate new address

Allocate new address

Allocate a new Elastic IP address by selecting the scope in which it will be used

Scope

VPC

IPv4 address pool

☒

Amazon pool

☐

Owned by me

* Required

Cancel

Allocate

eipalloc-0a8cd76f

i-20787ddd (Prachi_Jump s...

192.168.1.90

Allocate New Address

☒

New address request succeeded

Elastic IP: 52.71.163.58. [View Elastic IP](#)

Close

Associate IP to a instance

Step 3: Right click the EIP and click **Associate Address** to allocate it to a instance

Allocate new address

Actions ^

Filter by attributes or s

☒

Elastic IP

Release addresses

Associate address

Disassociate address

Move to VPC scope

Restore to EC2 scope

Instance

-

Provide the Instance details

[Addresses](#) > Associate address

Associate address

Select the instance OR network interface to which you want to associate this Elastic IP address (34.235.2.126)

Resource type

☒ Instance ⓘ
☐ Network interface

Instance

i-04b52641c43141a17

▼

🔄

ⓘ

Private IP

10.0.1.65

▼

🔄

ⓘ

Reassociation

☐ Allow Elastic IP to be reassociated if already attached ⓘ

The EIP will allocated to the instance

To Release IP Click **Release address**

Allocate new address

Actions ^

Filter by attributes or search

☒ Elastic IP

34.235.2.126

Release addresses

Associate address

Disassociate address

Move to VPC scope

Restore to EC2 scope

Instance

-

Release addresses

✕

Are you sure you want to release these 1 IP addresses?

Elastic IP:

13.126.158.173 (eipalloc-f5701bdb)

Cancel

Release

-----End Of the Document-----