

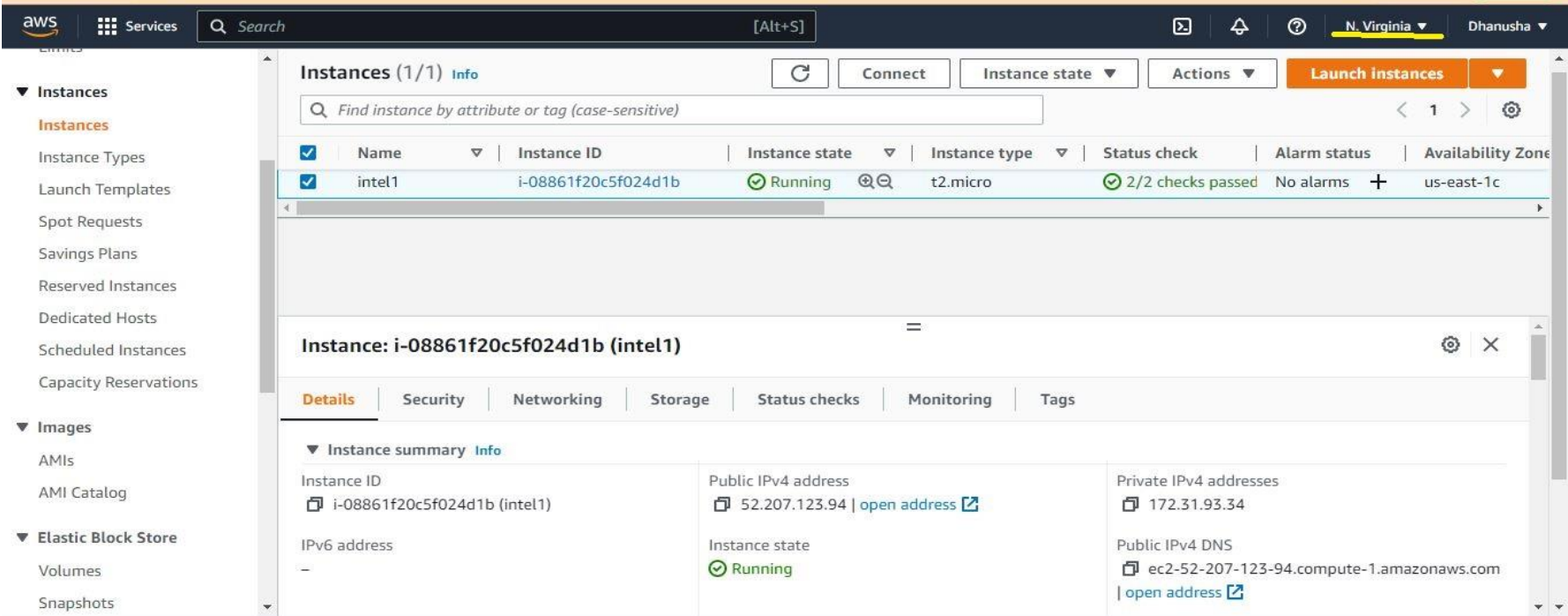
Problem Statement: You work for XYZ Corporation. Your company is working on an application, and it requires secured web servers on Linux to launch the application.

You are asked to:

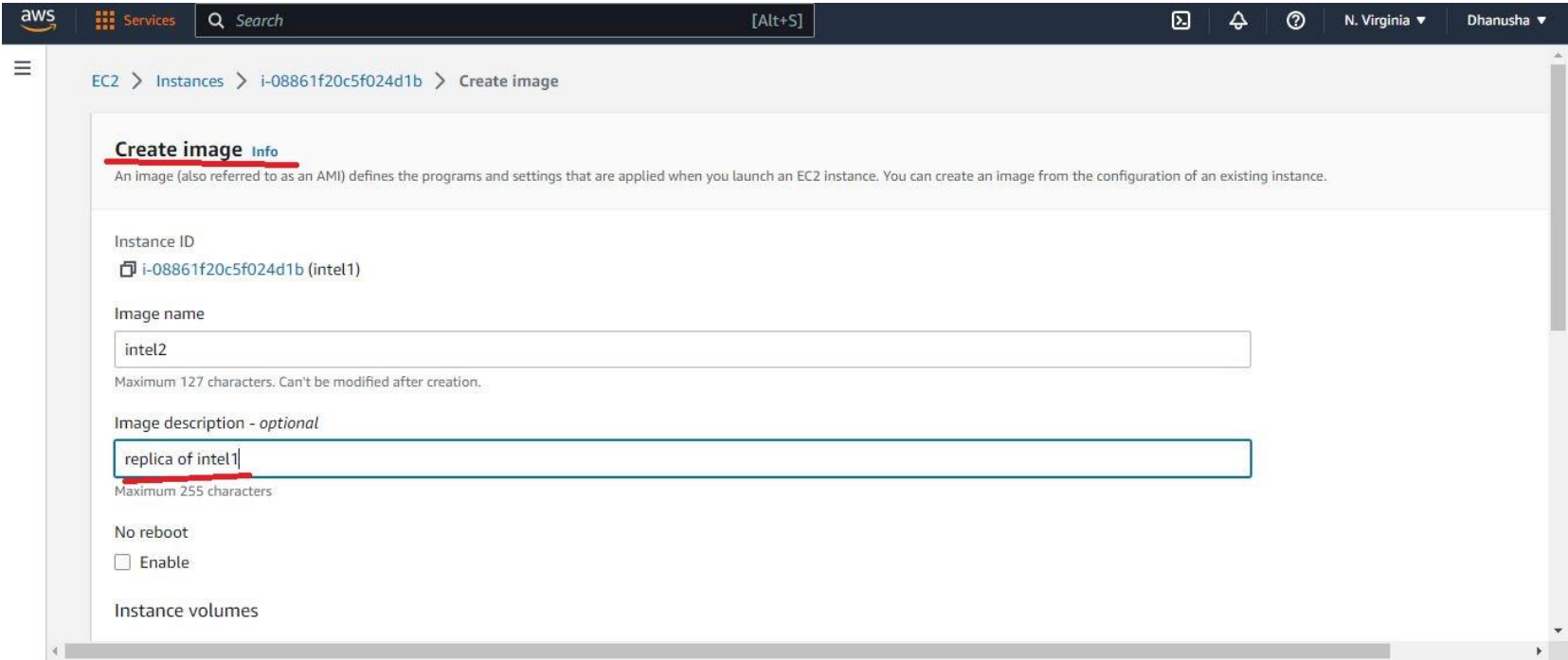
- 1. Create an instance in the us-east-1 (N. Virginia) region with the Linux OS and manage the requirement of web servers of your company using AMIs
- 2. Replicate the instance in the us-west-2 (Oregon) region
- 3. Build two EBS volumes and attach them to the instance in the us-east-1 (N. Virginia) region
- 4. Delete one volume after detaching it and extend the size of the other volume
- 5. Take a backup of this EBS volume

Solution:

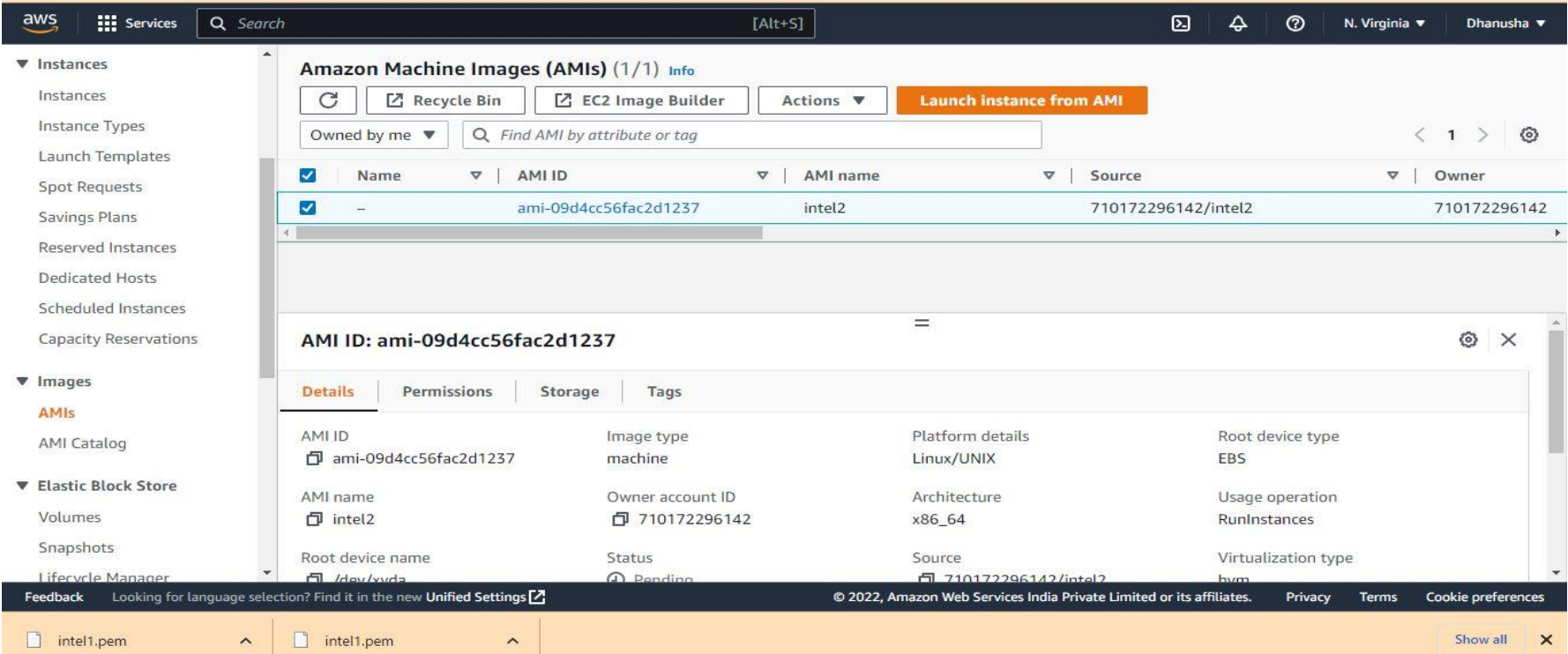
Step1: Created an instance **intel1** in the us-east-1 (N. Virginia) region with the Linux OS.



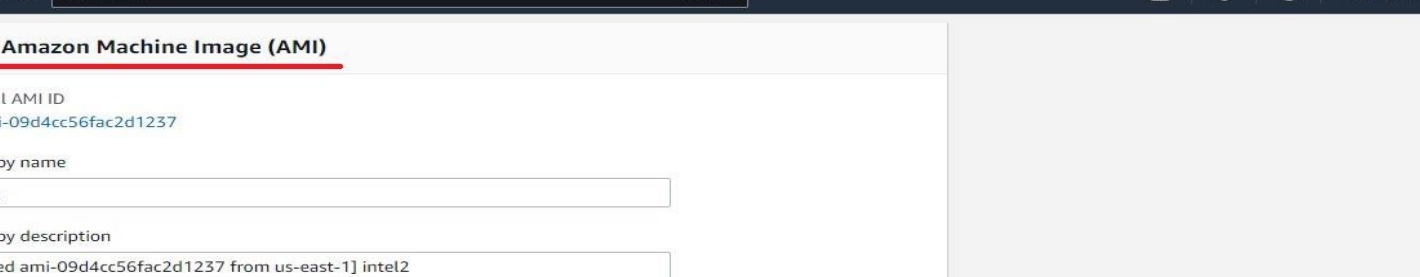
Step2: Create the custom image from the instance created **intel1** that is **intel2**, a replica of **intel1**.



Step3: Custom Image is created with AMI name **intel2**.



Step4: To replicate the instance in the us-west-2 (Oregon) region, first we need to copy the custom image created in N.Virgina to t us-west-2 (Oregon) region.



us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#CopyImage:imageId=ami-09d4cc56fac2d1237

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Copy Amazon Machine Image (AMI)

Original AMI ID
ami-09d4cc56fac2d1237

AMI copy name
intel2

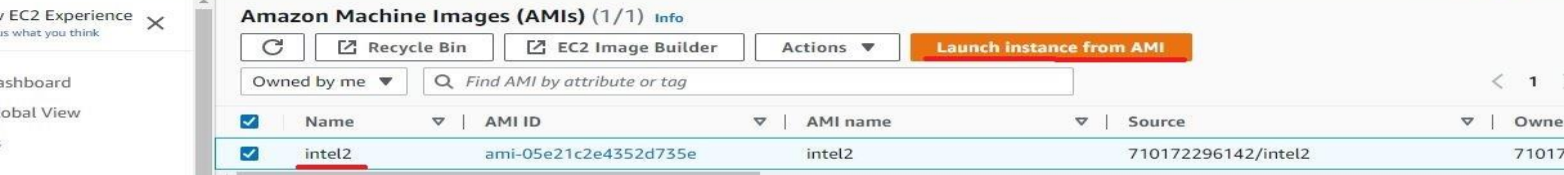
AMI copy description
[Copied ami-09d4cc56fac2d1237 from us-east-1] intel2

Destination Region
A copy of the original AMI will be created in the destination Region.
US West (Oregon)

☐ 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



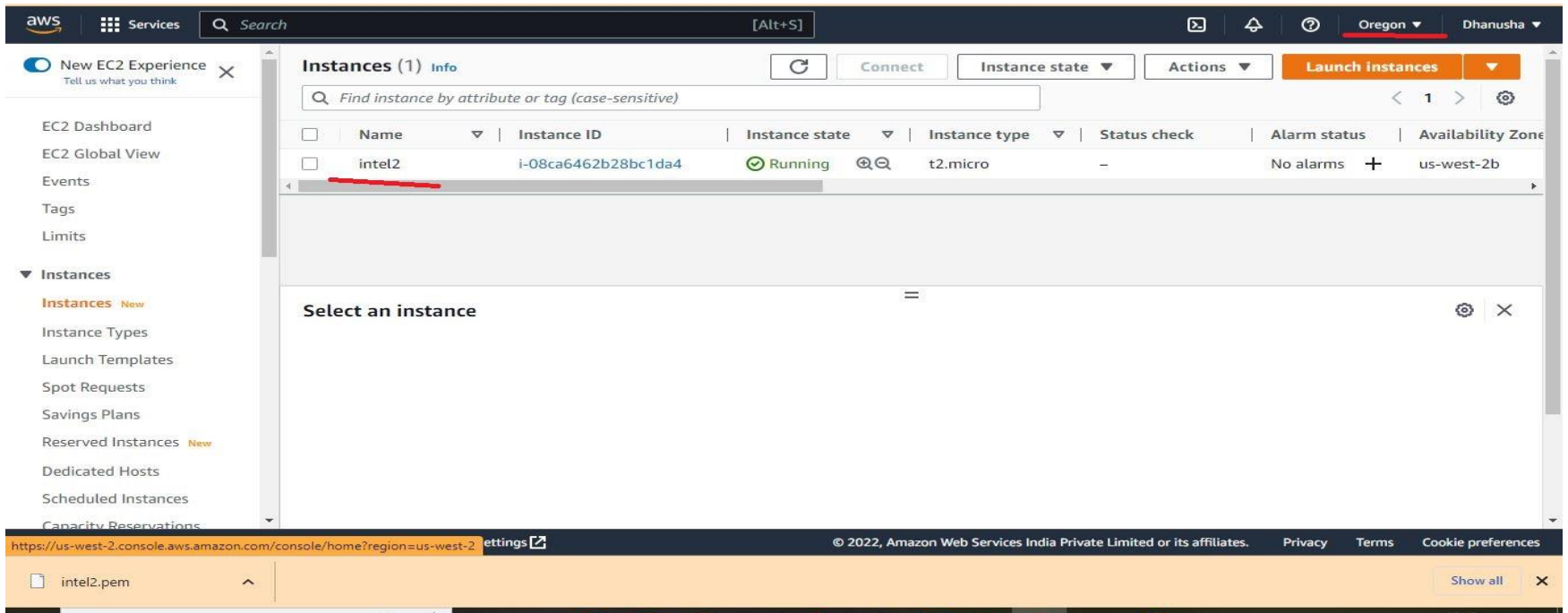
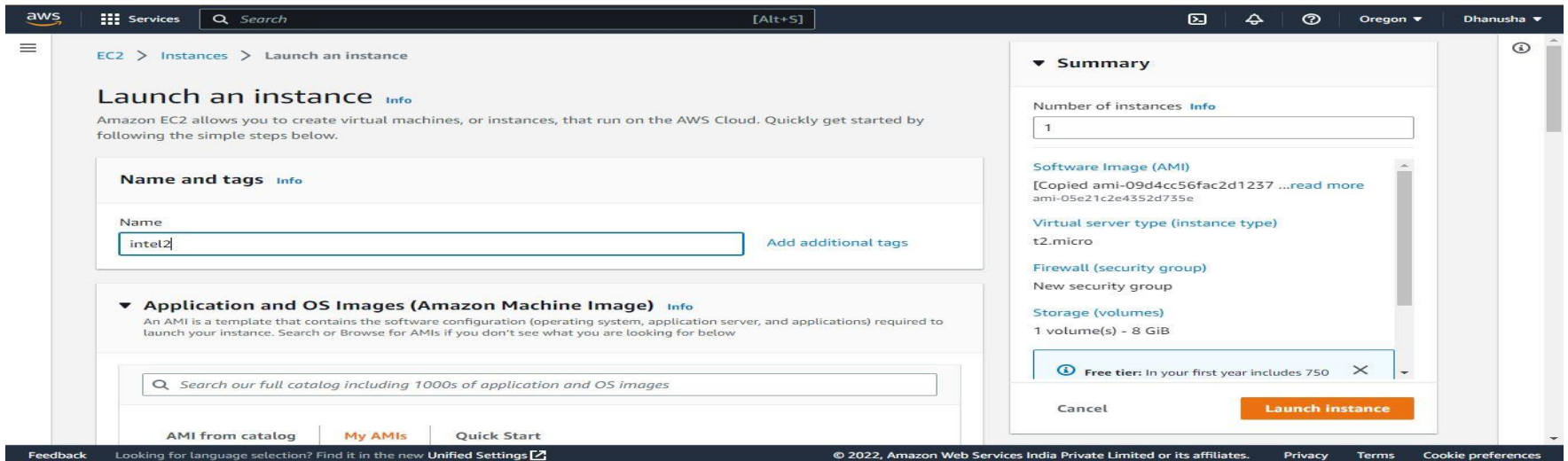
Amazon Machine Images (AMIs) (1/1)

Name	AMI ID	AMI name	Source	Owner
intel2	ami-05e21c2e4352d735e	intel2	710172296142/intel2	710172296142

AMI ID: ami-05e21c2e4352d735e (intel2)

Details	Permissions	Storage	Tags
AMI ID ami-05e21c2e4352d735e (intel2)	Image type machine	Platform details Linux/UNIX	Root device type EBS
AMI name intel2	Owner account ID 710172296142	Architecture x86_64	Usage operation RunInstances
Root device name /dev/xvda	Status Pending	Source 710172296142/intel2	Virtualization type hvm

Step5: Then launch a new instance named intel2 in us-west-2 (Oregon) region.



Step6: Create two EBS volumes **ebs1(10GiB)** and **ebs2(5GiB)** in the same region (N.Virgina) and attach to instance intel1.

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EC2 > Volumes > Create volume

Create volume

Info

Create an Amazon EBS volume to attach to any EC2 instance in the same Availability Zone.

Volume settings

Volume type

Info

General Purpose SSD (gp2)

Size (GiB)

Info

5

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

IOPS

Info

100 / 3000

Baseline of 3 IOPS per GiB with a minimum of 100 IOPS, burstable to 3000 IOPS.

Throughput (MiB/s)

Info

Not applicable

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Successfully created volume vol-016c79ea2bc2f6154.

You can now create Amazon Data Lifecycle Manager policies to automate snapshot management directly from this screen. Select the volumes to back up, and then choose **Actions, Create snapshot lifecycle policy**. For more information, see the [Knowledge Center](#) article.

Volumes (1/3)

Search

	Name	Volume ID	Type	Size	IOPS	Throughput	Snapshot	Created
<input type="checkbox"/>	-	vol-06b8d757afe58ba0d	gp2	8 GiB	100	-	snap-097c82c...	2022/12/17
<input type="checkbox"/>	ebs1	vol-0d287a965e10c9767	gp2	10 GiB	100	-	-	2022/12/18
<input checked="" type="checkbox"/>	ebs2	vol-016c79ea2bc2f6154	gp2	5 GiB	100	-	-	2022/12/18

Volume ID: vol-016c79ea2bc2f6154 (ebs2)

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intel2.pem Show all

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Instances (1/1)

Info

Find instance by attribute or tag (case-sensitive)

	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone
<input checked="" type="checkbox"/>	intel1	i-08861f20c5f024d1b	Running	t2.micro	2/2 checks passed	No alarms	us-east-1c

Instance: i-08861f20c5f024d1b (intel1)

Filter block devices

Volume ID	Device name	Volume size (GiB)	Attachment status	Attachment time	Encrypted	K
vol-06b8d757afe58ba0d	/dev/xvda	8	Attached	Sat Dec 17 2022 21:24:28 G...	No	-
vol-0d287a965e10c9767	/dev/sdf	10	Attached	Sun Dec 18 2022 09:56:58 G...	No	-
vol-016c79ea2bc2f6154	/dev/sdg	5	Attached	Sun Dec 18 2022 09:58:09 G...	No	-

Recent root volume replacement tasks

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Step7: Delete one volume **ebs1(10GiB)**. For that first detach the volume then delete it.

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Volumes (1/3)

Search

	Name	Volume ID	Type	Size	IOPS
<input type="checkbox"/>	-	vol-06b8d757afe58ba0d	gp2	8 GiB	100
<input checked="" type="checkbox"/>	ebs1	vol-0d287a965e10c9767	gp2	10 GiB	100
<input type="checkbox"/>	ebs2	vol-016c79ea2bc2f6154	gp2	5 GiB	100

Volume ID: vol-0d287a965e10c9767 (ebs1)

DetailsStatus checksMonitoringTags

Actions

Modify volume

Create snapshot

Create snapshot lifecycle policy

Delete volume

Attach volume

Detach volume

Force detach volume

Manage auto-enabled I/O

Manage tags

Create volume

< 1 >

Created

Created	Created
82c...	2022/12/17 21
	2022/12/18 05
	2022/12/18 05

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Capacity Reservations

You can now create Amazon Data Lifecycle Manager policies to automate snapshot management directly from this screen. Select the volumes to back up, and then choose **Actions**, **Create snapshot lifecycle policy**. For more information, see the [Knowledge Center article](#).

Volumes (3)

Search

Created	Availability Zone	Volume state	Alarm status	Attached Instances	Volume sta...
2022/12/17 21:24 GMT+5:...	us-east-1c	In-use	No alarms	+ i-08861f20c5f024d1b (inte...	Okay
2022/12/18 09:53 GMT+5:...	us-east-1c	Available	No alarms	+ -	Okay
2022/12/18 09:55 GMT+5:...	us-east-1c	In-use	No alarms	+ i-08861f20c5f024d1b (inte...	Okay

Select a volume above

Actions

Create volume

< 1 >

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Volumes (1/3)

Search

	Name	Volume ID	Type	Size	IOPS
<input type="checkbox"/>	-	vol-06b8d757afe58ba0d	gp2	8 GiB	100
<input checked="" type="checkbox"/>	ebs1	vol-0d287a965e10c9767	gp2	10 GiB	100
<input type="checkbox"/>	ebs2	vol-016c79ea2bc2f6154	gp2	5 GiB	100

Volume ID: vol-0d287a965e10c9767 (ebs1)

DetailsStatus checksMonitoringTags

Actions

Modify volume

Create snapshot

Create snapshot lifecycle policy

Delete volume

Attach volume

Detach volume

Force detach volume

Manage auto-enabled I/O

Manage tags

Create volume

< 1 >

Created

Created	Created
82c...	2022/12/17 21
	2022/12/18 05
	2022/12/18 05

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Capacity Reservations

Successfully deleted volume vol-0d287a965e10c9767.

You can now create Amazon Data Lifecycle Manager policies to automate snapshot management directly from this screen. Select the volumes to back up, and then choose **Actions**, **Create snapshot lifecycle policy**. For more information, see the [Knowledge Center article](#).

Volumes (2)

Search

	Name	Volume ID	Type	Size	IOPS	Throughput	Snapshot	Created
<input type="checkbox"/>	-	vol-06b8d757afe58ba0d	gp2	8 GiB	100	-	snap-097c82c...	2022/12/17
<input type="checkbox"/>	ebs2	vol-016c79ea2bc2f6154	gp2	5 GiB	100	-	-	2022/12/18

Select a volume above

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Step8: Then expand the volume **ebs2 (5GiB)** to **10 GiB**. We need to modify the volume.

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Capacity Reservations

Successfully deleted volume vol-0d287a965e10c9767.

You can now create Amazon Data Lifecycle Manager policies to automate snapshot management directly from this screen. Select the volumes to back up, and then choose **Actions**, **Create snapshot lifecycle policy**. For more information, see the [Knowledge Center article](#).

Volumes (1/2)

Search

	Name	Volume ID	Type	Size	IOPS	Throughput
<input type="checkbox"/>	-	vol-06b8d757afe58ba0d	gp2	8 GiB	100	-
<input checked="" type="checkbox"/>	ebs2	vol-016c79ea2bc2f6154	gp2	5 GiB	100	-

Volume ID: vol-016c79ea2bc2f6154 (ebs2)

Actions

Modify volume

Create snapshot

Create snapshot lifecycle policy

Delete volume

Attach volume

Detach volume

Force detach volume

Manage auto-enabled I/O

Manage tags

Create volume

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Modify volume

Info

Modify the type, size, and performance of an EBS volume.

Volume details

Volume ID

vol-016c79ea2bc2f6154 (ebs2)

Volume type

Info

General Purpose SSD (gp2)

Size (GiB)

Info

10

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

IOPS

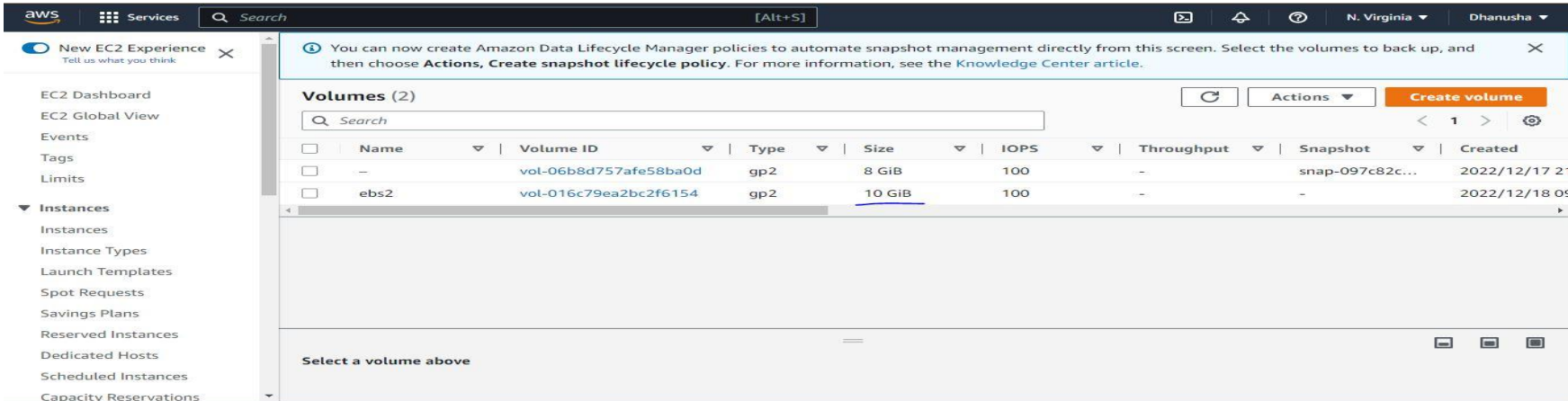
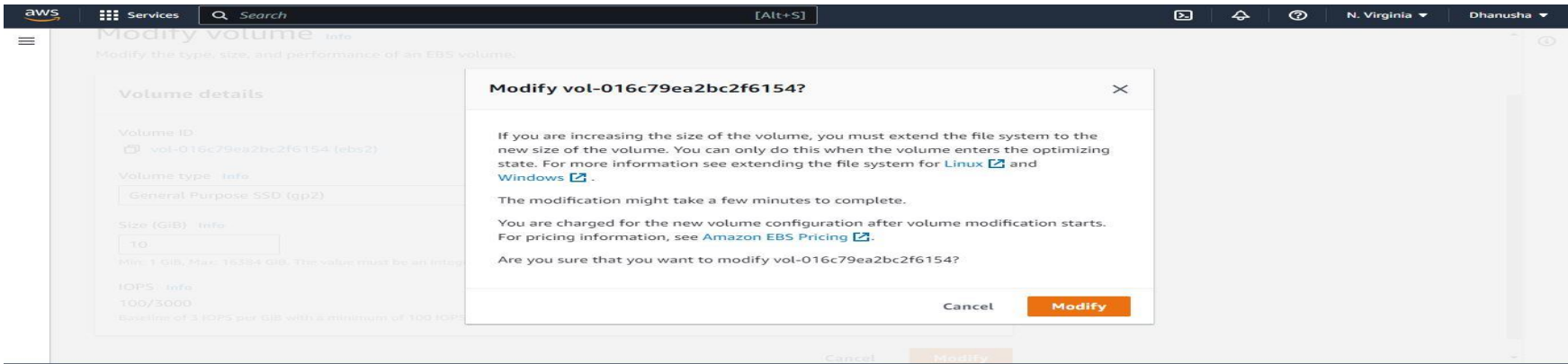
Info

100/3000

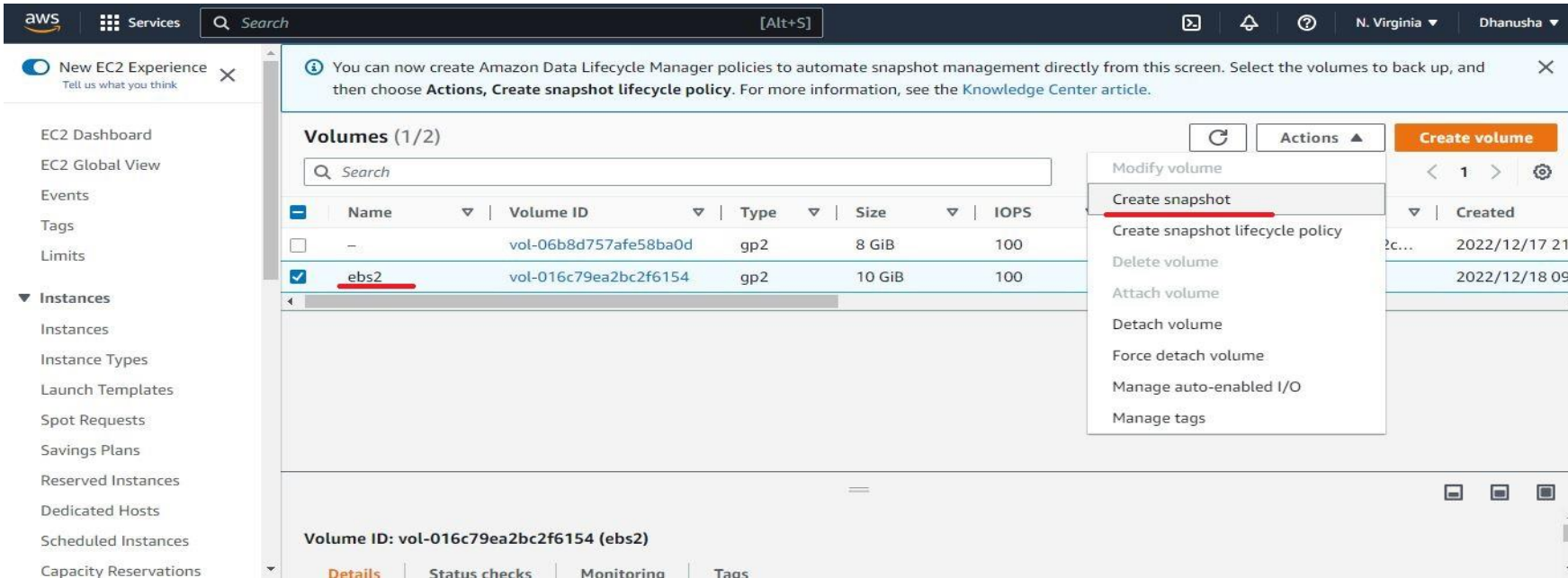
Baseline of 3 IOPS per GiB with a minimum of 100 IOPS, burstable to 3000 IOPS.

Cancel

Modify



Step9: Create a snapshot of the volume **ebs2**.



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Capacity Reservations

Successfully created snapshot snap-0eba93e8428d14f2a from volume vol-016c79ea2bc2f6154.

Manage fast snapshot restore

You can now create Amazon Data Lifecycle Manager policies to automate snapshot management directly from this screen. Select the volumes to back up, and then choose **Actions, Create snapshot lifecycle policy**. For more information, see the [Knowledge Center article](#).

Volumes (2)

Search

Actions

Create volume

< 1 >

	Name	Volume ID	Type	Size	IOPS	Throughput	Snapshot	Created
<input type="checkbox"/>	-	vol-06b8d757afe58ba0d	gp2	8 GiB	100	-	snap-097c82c...	2022/12/17
<input type="checkbox"/>	ebs2	vol-016c79ea2bc2f6154	gp2	10 GiB	100	-	-	2022/12/18

Select a volume above