

Module-2: EC2 and EBS

Assignment - 2

You have been asked to:

1. Launch a Linux EC2 instance
2. Create a EBS volume with 20 GB of storage and attach it the created EC2 instance
3. Resize the attached volume and make sure it reflects in the connected instance

Instances (1/2) Info

Search

	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS	Public IPv4 ...	Elastic IP
<input type="checkbox"/>	-	i-0f20c1cfac505b670	Running	t2.micro	2/2 checks passed	No alarms	us-east-1c	ec2-3-82-126-240.com...	3.82.126.240	-
<input checked="" type="checkbox"/>	-	i-057c45249cae68469	Running	t2.micro	-	No alarms	us-east-1c	ec2-184-72-207-194.co...	184.72.207.194	-

1. Use the same steps mentioned in module_2_assignment_1 to create a new EC2 instance

Instance: i-057c45249cae68469

Details Security Networking Storage Status checks Monitoring Tags

Tags

Search

Manage tags

Key	Value
createdBy	Hariharan Narayanan
name	enhariharan_module_2_assignment_2_ec2

2. Open EBS Volumes view

3. Select to create a Create volume

h for services, features, blogs, docs, and more [Alt+S]

DataSync



N. Virginia

Hariha ryanan

Volumes (2)

Filter volumes



Actions

Create volume

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<input type="checkbox"/>	Name	Volume ID	Type	Size	IOPS	Throughput	Snapshot	Created	Availability Zone	Volume state	Alarm status
<input type="checkbox"/>	-	vol-098f5d54202e23132	gp2	8 GiB	100	-	snap-0f7a6ea...	2021/12/20 21:16 GMT+5:...	us-east-1c	✓ In-use	No alarms
<input type="checkbox"/>	-	vol-07f5ccb0f2a1de0a7	gp2	8 GiB	100	-	snap-0f7a6ea...	2021/12/20 23:55 GMT+5:...	us-east-1c	✓ In-use	No alarms

EC2 > Volumes > Create volume

Create volume

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

Volume settings

Volume type

General Purpose SSD (gp2)

Size (GiB)

20

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

IOPS

100 / 3000

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

Throughput (MiB/s)

Not applicable

Availability Zone

us-east-1c

Snapshot ID - optional

Don't create volume from a snapshot



Encryption

Use Amazon EBS encryption as an encryption solution for your EBS resources associated with your EC2 instances.

☐ Encrypt this volume

Tags - optional

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.

Key

name

Value - optional

module_2_assignment_2_ebs

Remove

createdBy

Hariharan Narayanan

Remove

Add tag

You can add 48 more tags.

6. Create tags as needed

5. Ensure availability zone is same as the EC2 instance

7. Create volume

Cancel

Create volume

Volumes (1/3)

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Actions ▾

Create volume

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Filter volumes

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<div>☐</div>	Name ▾	Volume ID ▾	Type ▾	Size ▾	IOPS ▾	Throughput ▾	Snapshot ▾	Created ▾	Availability Zone ▾	Volume state ▾	Alarm status
<div>☐</div>	-	vol-098f5d54202e23132	gp2	8 GiB	100	-	snap-0f7a6ea...	2021/12/20 21:16 GMT+5:...	us-east-1c	<div>✓ In-use</div>	No alarms
<div>☐</div>	-	vol-07f5ccb0f2a1de0a7	gp2	8 GiB	100	-	snap-0f7a6ea...	2021/12/20 23:55 GMT+5:...	us-east-1c	<div>✓ In-use</div>	No alarms
<div>☑</div>	-	vol-0774dc593dd372e66	gp2	20 GiB	100	-	-	2021/12/21 00:22 GMT+5:...	us-east-1c	<div>✓ Available</div>	No alarms

<

>

Volume ID: [vol-0774dc593dd372e66](#)

[Details](#) | [Status checks](#) | [Monitoring](#)

Details

Volume ID

🔗

[vol-0774dc593dd372e66](#)

Volume state

✓

 Available

KMS key ID

-

Availability Zone

us-east-1c

Outposts ARN

-

Size

📄

 20 GiB

IOPS

100

KMS key alias

-

Created

📅

 Tue Dec 21 2021 00:22:20 GMT+0530 (India Standard Time)

gp2

Throughput

-

KMS key ARN

-

Multi-Attach enabled

No

Encryption

Not encrypted

Snapshot

-

Attached Instances

-

9. Select to attach volume

- 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

8. Verify that volume is visible in Volumes page and that AZ is same as the EC2 instance.

Wait until status becomes "Available"

Attach volume [Info](#)

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

Basic details

Volume ID

 vol-0774dc593dd372e66

Availability Zone

us-east-1c

Instance [Info](#)

i-057c45249cae68469 ▼




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

 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**.

10. Select the EC2 instance created in step 1

Cancel

Attach volume

11. Select to Attach volume

Volumes (1/3)

Filter volumes

Actions Create volume

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	Name	Volume ID	Type	Size	IOPS	Throughput	Snapshot	Created	Availability Zone	Volume state	Alarm status
<input type="checkbox"/>	-	vol-098f5d54202e23132	gp2	8 GiB	100	-	snap-0f7a6ea...	2021/12/20 21:16 GMT+5:...	us-east-1c	✓ In-use	No alarms
<input type="checkbox"/>	-	vol-07f5ccb0f2a1de0a7	gp2	8 GiB	100	-	snap-0f7a6ea...	2021/12/20 23:55 GMT+5:...	us-east-1c	✓ In-use	No alarms
<input checked="" type="checkbox"/>	-	vol-0774dc593dd372e66	gp2	20 GiB	100	-	-	2021/12/21 00:22 GMT+5:...	us-east-1c	✓ In-use	No alarms

12. In Volumes page, Select the attached volume

- 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

14. Select Modify Volume

Volume ID: vol-0774dc593dd372e66

Details Status checks Monitoring Tags

Details

Volume ID vol-0774dc593dd372e66	Size 20 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 us-east-1c	Created Tue Dec 21 2021 00:22:20 GMT+0530 (India Standard Time)	Multi-Attach enabled No	Attached Instances i-057c45249cae68469: /dev/sdf (attached)
Outposts ARN -			


13. And verify that attached instance is visible here

Modify volume [Info](#)

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

Volume details

Volume ID

 vol-0774dc593dd372e66

Volume type [Info](#)

General Purpose SSD (gp2) ▼

Size (GiB) [Info](#)

30

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

15. Resize Volume to 30 GiB

16. Click on Modify

Modify vol-0774dc593dd372e66?

If you are increasing the size of the volume, you must extend the file system to the new size of the volume. You can only do this when the volume enters the optimizing state. For more information see extending the file system for [Linux](#) and [Windows](#).

The modification might take a few minutes to complete.

You are charged for the new volume configuration after volume modification starts. For pricing information, see [Amazon EBS Pricing](#).

Are you sure that you want to modify vol-0774dc593dd372e66?

Cancel

Modify

17. Click on Modify

Volumes (3)

Actions

Create volume

Filter volumes

< 1 >

<input type="checkbox"/>	Name	Volume ID	Type	Size	IOPS	Throughput	Snapshot	Created	Availability Zone	Volume state	Alarm status
<input type="checkbox"/>	-	vol-098f5d54202e23132	gp2	8 GiB	100	-	snap-0f7a6ea...	2021/12/20 21:16 GMT+5:...	us-east-1c	In-use	No alarms
<input type="checkbox"/>	-	vol-07f5ccb0f2a1de0a7	gp2	8 GiB	100	-	snap-0f7a6ea...	2021/12/20 23:55 GMT+5:...	us-east-1c	In-use	No alarms
<input type="checkbox"/>	-	vol-0774dc593dd372e66	gp2	30 GiB	100	-	-	2021/12/21 00:22 GMT+5:...	us-east-1c	In-use - optimizi	No alarms

Select a volume above

18. In Volumes view verify that size has changed to 30 GiB. Wait until “Volume state” becomes “Available”