EC2 and EBS Assignment - 2

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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

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1. Launch a Linux EC2 Instance:

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2. Create an EBS volume with 20 GB of storage and attach it the created EC2 instance

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Attaching volume to EC2:

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-032a665d4ec6e4404

Availability Zone

ap-south-1b

Instance Info

i-011979956ea3f630c ▼ | 🔄 |

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

Device name Info

/dev/sdf

Recommended device names for Linux: /dev/sda1 for root volume. /dev/sd[f-p] for data volumes.

ⓘ 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.**

Instances (1/1) Info | 🔄 | Connect | Instance state ▼ | Actions ▼ | **Launch instances** | ▼ |

🔍 Find instance by attribute or tag (case-sensitive)   ⟨ 1 ⟩ ⚙

☑	Name	▽	Instance ID	Instance state	▽	Instance type	▽	Status check	Alarm status	Availability Zone	▽	Public IPv4 DN
☑	LinuxInstance		i-011979956ea3f630c	⊘ Running	⊕⊖	t2.micro		⊘ 2/2 checks passed	No alarms ➕	ap-south-1b		ec2-15-206-16

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Instance: i-011979956ea3f630c (LinuxInstance)   ⚙ ✕

▼ Root device details

Root device name   Root device type   EBS optimization
📋 /dev/xvda   EBS   disabled

▼ **Block devices**

🔍 Filter block devices

Volume ID	Device name	Volume size (GiB)	Attachment status	Attachment time	Encrypted	KMS key ID
vol-0efab1423953fac6e	/dev/xvda	8	⊘ Attached	Mon Feb 13 2023 17:15:00 G...	No	–
vol-032a665d4ec6e4404	/dev/sdf	20	⊘ Attached	Mon Feb 13 2023 17:31:20 G...	No	–

▼ **Recent root volume replacement tasks**

3. Resize the attached volume and make sure it reflects in the connected instance

EC2 > Volumes > vol-032a665d4ec6e4404 > Modify volume

Modify volume Info

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

Volume details

Volume ID

vol-032a665d4ec6e4404

Volume type Info

General Purpose SSD (gp2) ▼

Size (GiB) Info

25

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

Instances (1/1) Info   🔄   Connect   Instance state ▼   Actions ▼   **Launch instances** ▼

🔍 Find instance by attribute or tag (case-sensitive)   < 1 > ⚙

☑	Name	▽	Instance ID	Instance state	▽	Instance type	▽	Status check	Alarm status	Availability Zone	▽	Public IPv4 DN
☑	LinuxInstance		i-011979956ea3f630c	⊘ Running ⊕⊖		t2.micro		⊘ 2/2 checks passed	No alarms ➕	ap-south-1b		ec2-15-206-16

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Instance: i-011979956ea3f630c (LinuxInstance)   ⚙ ✕

🗗 /dev/xvda   EBS   disabled

▼ Block devices

🔍 Filter block devices

Volume ID	Device name	Volume size (GiB)	Attachment status	Attachment time	Encrypted	KMS key ID
vol-0efab1423953fac6e	/dev/xvda	8	⊘ Attached	Mon Feb 13 2023 17:15:00 G...	No	–
vol-032a665d4ec6e4404	/dev/sdf	25	⊘ Attached	Mon Feb 13 2023 17:31:20 G...	No	–

Mounting Volume on Linux Instance:

File system not available, so created file system as below:

```
[root@ip-172-31-1-45 ~]# df -h
Filesystem      Size  Used Avail Use% Mounted on
devtmpfs        474M     0  474M   0% /dev
tmpfs           483M     0  483M   0% /dev/shm
tmpfs           483M  412K  482M   1% /run
tmpfs           483M     0  483M   0% /sys/fs/cgroup
/dev/xvda1      8.0G  1.8G  6.3G  22% /
tmpfs            97M     0   97M   0% /run/user/1000
[root@ip-172-31-1-45 ~]# 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  25G  0 disk
[root@ip-172-31-1-45 ~]# file -s /dev/xvdf
/dev/xvdf: data
[root@ip-172-31-1-45 ~]# mkfs -t xfs /dev/xvdf
meta-data=/dev/xvdf              isize=512    agcount=4, agsize=1638400 blks
         =                       sectsz=512   attr=2, projid32bit=1
         =                       crc=1        finobt=1, sparse=1, rmapbt=0
         =                       reflink=1    bigtime=0 inobtcount=0
data     =                       bsize=4096   blocks=6553600, imaxpct=25
         =                       sunit=0      swidth=0 blks
naming   =version 2              bsize=4096   ascii-ci=0, ftype=1
log      =internal log           bsize=4096   blocks=3200, version=2
         =                       sectsz=512   sunit=0 blks, lazy-count=1
realtime =none                   extsz=4096   blocks=0, rtextents=0
[root@ip-172-31-1-45 ~]# file -s /dev/xvdf
/dev/xvdf: SGI XFS filesystem data (blksz 4096, inosz 512, v2 dirs)
```

Mounting And Unmounting the volume:

```
[root@ip-172-31-1-45 dev]# mount /dev/xvdf /dev/volume/my-volume/
[root@ip-172-31-1-45 dev]# df -h
Filesystem      Size  Used Avail Use% Mounted on
devtmpfs        474M     0  474M   0% /dev
tmpfs           483M     0  483M   0% /dev/shm
tmpfs           483M  412K  482M   1% /run
tmpfs           483M     0  483M   0% /sys/fs/cgroup
/dev/xvda1      8.0G  1.8G  6.3G  22% /
tmpfs            97M     0   97M   0% /run/user/1000
/dev/xvdf        25G  211M   25G   1% /dev/volume/my-volume
[root@ip-172-31-1-45 dev]# umount /dev/xvdf /dev/volume/my-volume/
umount: /dev/volume/my-volume/: not mounted.
[root@ip-172-31-1-45 dev]# df -h
Filesystem      Size  Used Avail Use% Mounted on
devtmpfs        474M     0  474M   0% /dev
tmpfs           483M     0  483M   0% /dev/shm
tmpfs           483M  412K  482M   1% /run
tmpfs           483M     0  483M   0% /sys/fs/cgroup
/dev/xvda1      8.0G  1.8G  6.3G  22% /
tmpfs            97M     0   97M   0% /run/user/1000
```