

Lab 4: Working with EBS

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Lab Overview



This lab focuses on Amazon Elastic Block Store (Amazon EBS), a key underlying storage mechanism for Amazon EC2 instances. In this lab, you will learn how to create an Amazon EBS volume, attach it to an instance, apply a file system to the volume, and then take a snapshot backup.

Topics covered

By the end of this lab, you will be able to:

- Create an Amazon EBS volume
- Attach and mount your volume to an EC2 instance
- Create a snapshot of your volume
- Create a new volume from your snapshot
- Attach and mount the new volume to your EC2 instance

Lab Pre-requisites

To successfully complete this lab, you should be familiar with basic Amazon EC2 usage and with basic Linux server administration. You should feel comfortable using the Linux command-line tools.

Duration

This lab will require approximately **30 minutes** to complete.

AWS service restrictions

In this lab environment, access to AWS services and service actions might be restricted to the ones that are needed to complete the lab instructions. You might encounter errors if you attempt to access other services or perform actions beyond the ones that are described in this lab.

What is Amazon Elastic Block Store?

Amazon Elastic Block Store (Amazon EBS) offers persistent storage for Amazon EC2 instances. Amazon EBS volumes are network-attached and persist independently from the life of an instance. Amazon EBS volumes are highly available, highly reliable volumes that can be leveraged as an Amazon EC2 instances boot partition or attached to a running Amazon EC2 instance as a standard block device.

When used as a boot partition, Amazon EC2 instances can be stopped and subsequently restarted, enabling you to pay only for the storage resources used while maintaining your instance's state. Amazon EBS volumes offer greatly improved durability over local Amazon EC2 instance stores because Amazon EBS volumes are automatically replicated on the backend (in a single Availability Zone).

For those wanting even more durability, Amazon EBS provides the ability to create point-in-time consistent snapshots of your volumes that are then stored in Amazon Simple Storage Service (Amazon S3) and automatically replicated across multiple Availability Zones. These snapshots can be used as the starting point for new Amazon EBS volumes and can protect your data for long-term durability. You can also easily share these snapshots with co-workers and other AWS developers.

This lab guide explains basic concepts of Amazon EBS in a step-by-step fashion. However, it can only give a brief overview of Amazon EBS concepts. For further information, see the [Amazon EBS documentation](#).

Amazon EBS Volume Features

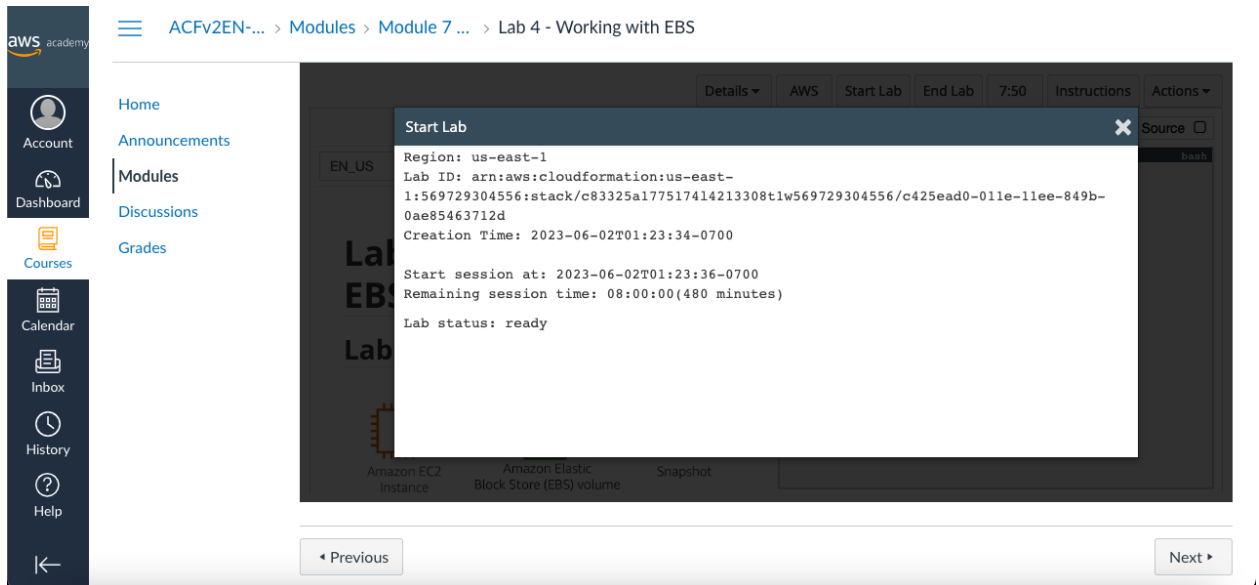
Amazon EBS volumes deliver the following features:

- **Persistent storage:** Volume lifetime is independent of any particular Amazon EC2 instance.
- **General purpose:** Amazon EBS volumes are raw, unformatted block devices that can be used from any operating system.
- **High performance:** Amazon EBS volumes are equal to or better than local Amazon EC2 drives.
- **High reliability:** Amazon EBS volumes have built-in redundancy within an Availability Zone.
- **Designed for resiliency:** The AFR (Annual Failure Rate) of Amazon EBS is between 0.1% and 1%.
- **Variable size:** Volume sizes range from 1 GB to 16 TB.
- **Easy to use:** Amazon EBS volumes can be easily created, attached, backed up, restored, and deleted.

Accessing the AWS Management Console

1. At the top of these instructions, click **Start Lab** to launch your lab. A Start Lab panel opens displaying the lab status.

- Wait until you see the message "**Lab status: ready**", then click the **X** to close the Start Lab panel.



- At the top of these instructions, click **AWS**. This will open the AWS Management Console in a new browser tab. The system will automatically log you in.
Tip: If a new browser tab does not open, there will typically be a banner or icon at the top of your browser indicating that your browser is preventing the site from opening pop-up windows. Choose the banner or icon and choose "Allow pop ups."
- Arrange the AWS Management Console tab so that it displays along side these instructions. Ideally, you will be able to see both browser tabs at the same time, to make it easier to follow the lab steps.

Task 1: Create a New EBS Volume

In this task, you will create and attach an Amazon EBS volume to a new Amazon EC2 instance.

- In the **AWS Management Console**, on the **Services** menu, click **EC2**.

6. In the left navigation pane, choose **Instances**.
An Amazon EC2 instance named **Lab** has already been launched for your lab.

The screenshot shows the AWS Management Console interface. The left navigation pane is open, and 'Instances' is selected. The main content area displays the 'Instance summary for i-002b5dba74dfa9515 (Lab)'. The instance is in a 'Running' state. Key details include:

- Instance ID: i-002b5dba74dfa9515 (Lab)
- Public IPv4 address: 54.89.70.106
- Private IPv4 addresses: 10.1.11.218
- Instance state: Running
- Public IPv4 DNS: ec2-54-89-70-106.compute-1.amazonaws.com
- Private IP DNS name (IPv4 only): ip-10-1-11-218.ec2.internal
- Instance type: t2.micro
- VPC ID: vpc-0811170d52ebce0ab (Lab VPC)
- Auto-assigned IP address: 54.89.70.106 [Public IP]

7. Note the **Availability Zone** of the instance. It will look similar to *us-east-1a*.

The screenshot shows the AWS Management Console interface with the 'Instances' page. A list of instances is displayed, filtered by the tag 'lab'. The instance 'i-002b5dba74dfa9515' is selected, and its details are shown in the table below:

Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone
i-0312dd65c0f259b4d	Running	t2.micro	2/2 checks passed	No alarms	us-east-1a
i-002b5dba74dfa9515	Running	t2.micro	2/2 checks passed	No alarms	us-east-1a

8. In the left navigation pane, choose **Volumes**.
You will see an existing volume that is being used by the Amazon EC2 instance.
This volume has a size of 8 GiB, which makes it easy to distinguish from the volume you will create next, which will be 1 GiB in size.

Volumes (2) [Info](#)

<input type="checkbox"/>	Name	Volume ID	Type	Size	IOPS	Throughput	Snapshot
<input type="checkbox"/>	-	vol-07681d4c28f1d6bb5	gp3	8 GiB	3000	125	snap-02cac53...
<input type="checkbox"/>	-	vol-06325b973bb1ce66e	gp3	8 GiB	3000	125	snap-02cac53...

Select a volume above

9. Choose **Create volume** then configure:
 - **Volume Type:** *General Purpose SSD (gp2)*
 - **Size (GiB):** **1**. **NOTE:** You may be restricted from creating large volumes.
 - **Availability Zone:** Select the same availability zone as your EC2 instance.

Volume settings

Volume type [Info](#)

General Purpose SSD (gp2)

Size (GiB) [Info](#)

1

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

Availability Zone [Info](#)

us-east-1a

- Choose **Add Tag**
- In the Tag Editor, enter:
 - **Key:** **Name**
 - **Value:** **My Volume**

Don't create volume from a snapshot

Encryption [Info](#)
Use Amazon EBS encryption as an encryption solution for your EBS resources associated with your EC2 instances.
☐ Encrypt this volume

Tags - optional [Info](#)
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: My Volume [Remove]

[Add tag]

You can add 49 more tags.

[Cancel] **Create volume**

10. Choose **Create Volume**

Your new volume will appear in the list, and will move from the *Creating* state to the *Available* state. You may need to choose **refresh** to see your new volume.

Successfully created volume vol-0dce37f0f30c4a474.

Volumes (3) [Info](#) [Refresh] [Actions] **Create volume**

	Name	Volume ID	Type	Size	IOPS	Throughput	Snapshot
<input type="checkbox"/>	-	vol-07681d4c28f1d6bb5	gp3	8 GiB	3000	125	snap-02cac53...
<input type="checkbox"/>	-	vol-06325b973bb1ce66e	gp3	8 GiB	3000	125	snap-02cac53...
<input type="checkbox"/>	-	vol-0dce37f0f30c4a474	gp2	1 GiB	100	-	-

Select a volume above

Task 2: Attach the Volume to an Instance

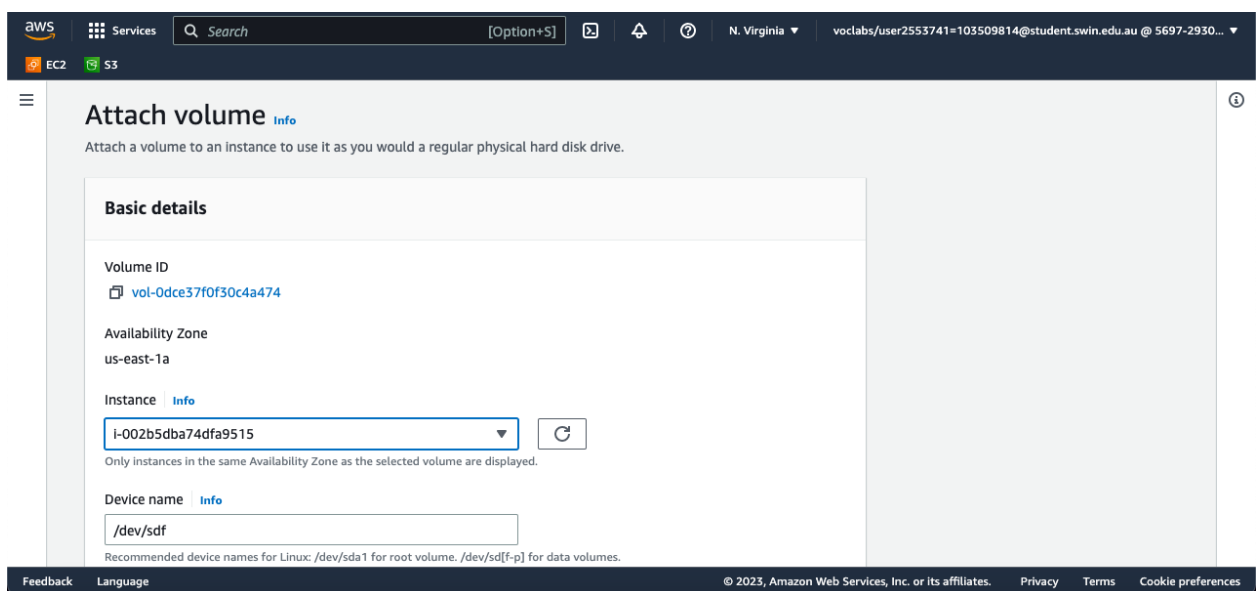
You can now attach your new volume to the Amazon EC2 instance.

11. Select **My Volume**.

12. In the **Actions** menu, choose **Attach volume**.

13. Choose the **Instance** field, then select the instance that appears (Lab).

Note that the **Device** field is set to `/dev/sdf`. You will use this device identifier in a later task.



Choose **Attach volume**

14. The volume state is now *In-use*.

Task 3: Connect to Your Amazon EC2 Instance

Windows Users: Using SSH to Connect

These instructions are for Windows users only.

If you are using macOS or Linux, [skip to the next section](#).

15. Read through the three bullet points in this step before you start to complete the actions, because you will not be able to see these instructions when the Details panel is open.

- Choose the **Details** drop down menu above these instructions you are currently reading, and then choose **Show**. A Credentials window will open.
- Choose the **Download PPK** button and save the **labsuser.ppk** file. Typically your browser will save it to the Downloads directory.
- Then exit the Details panel by choosing the **X**.

16. Download needed software.

- You will use **PuTTY** to SSH to Amazon EC2 instances. If you do not have PuTTY installed on your computer, [download it here](#).

17. Open **putty.exe**

18. Configure PuTTY to not timeout:

- Choose **Connection**
- Set **Seconds between keepalives** to **30**

19. This allows you to keep the PuTTY session open for a longer period of time.

20. Configure your PuTTY session:

- Choose **Session**
- **Host Name (or IP address)**: Paste the *Public DNS or IPv4 address* of the Lab instance that you noted earlier.
- Back in PuTTY, in the **Connection** list, expand **SSH**
- Choose **Auth** and expand **Credentials**
- Under **Private key file for authentication**: Choose **Browse**
- Browse to the *labsuser.ppk* file that you downloaded, select it, and choose **Open**
- Choose **Open** again

20. To trust and connect to the host, choose **Accept**.

21. When prompted **login as**, enter: **ec2-user**

This will connect you to the EC2 instance.

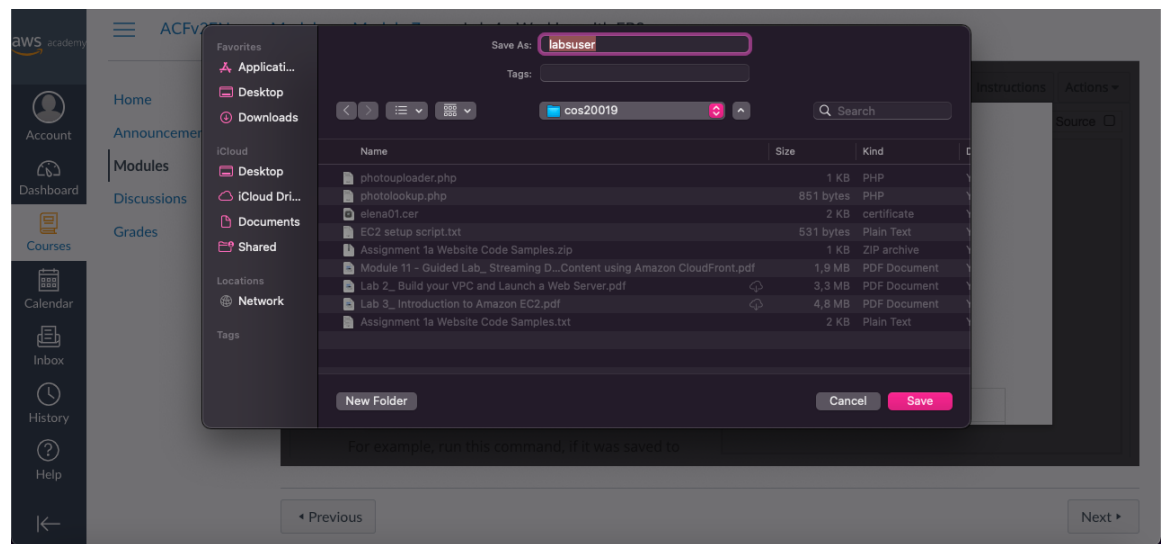
22. [Windows Users: Choose here to skip ahead to the next task](#).

macOS and Linux Users

These instructions are for Mac/Linux users only. If you are a Windows user, [skip ahead to the next task.](#)

23. Read through all the instructions in this one step before you start to complete the actions, because you will not be able to see these instructions when the Details panel is open.

- Choose the **Details** drop down menu above these instructions you are currently reading, and then choose **Show**. A Credentials window will open.
- Choose the **Download** button and save the **labsuser.pem** file.
- Then exit the Details panel by choosing the **X**.



24. Open a terminal window, and change directory `cd` to the directory where the `labsuser.pem` file was downloaded.

For example, run this command, if it was saved to your Downloads directory:

25. 1

26. `cd ~/Downloads`

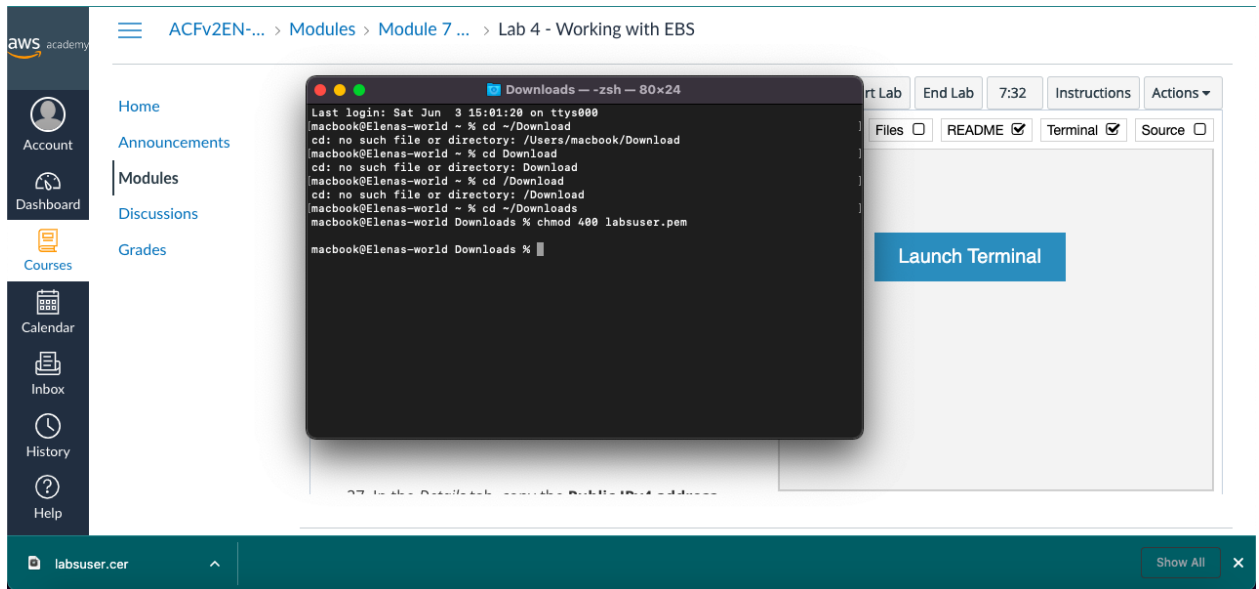
27.

28. Change the permissions on the key to be read only, by running this command:

29. 1

30. `chmod 400 labsuser.pem`

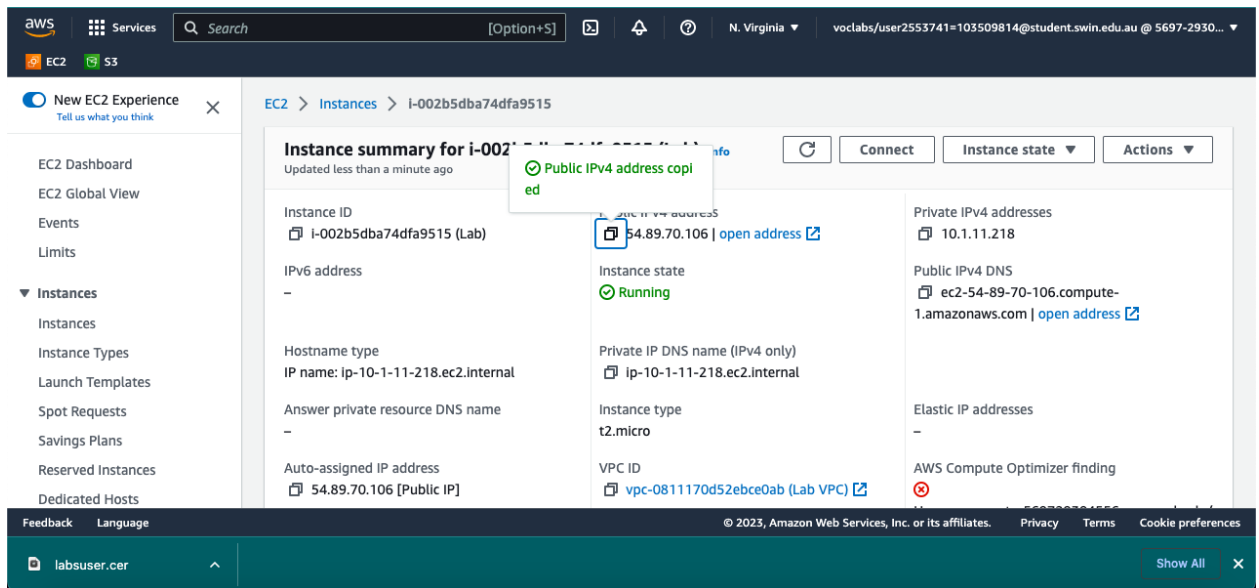
31.



32. Return to the AWS Management Console, and in the EC2 service, choose **Instances**.

The **Lab** instance should be selected.

33. In the *Details* tab, copy the **Public IPv4 address** value.



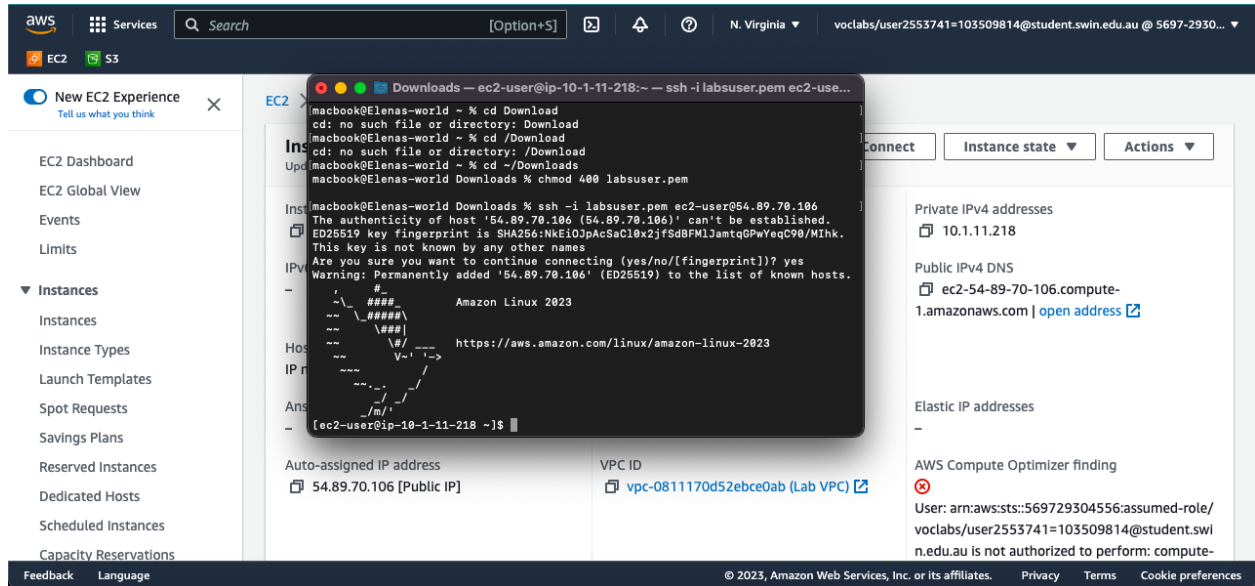
34. Return to the terminal window and run this command (replace **<public-ip>** with the actual public IP address you copied):

36. `ssh -i labsuser.pem ec2-user@<public-ip>`

37.

35. 1

38. Type **yes** when prompted to allow a first connection to this remote SSH server.
Because you are using a key pair for authentication, you will not be prompted for a password.



Task 4: Create and Configure Your File System

In this task, you will add the new volume to a Linux instance as an ext3 file system under the /mnt/data-store mount point.

If you are using PuTTY, you can paste text by right-clicking in the PuTTY window.

30. View the storage available on your instance:

31.1

32. **df -h**

33. You should see output similar to:

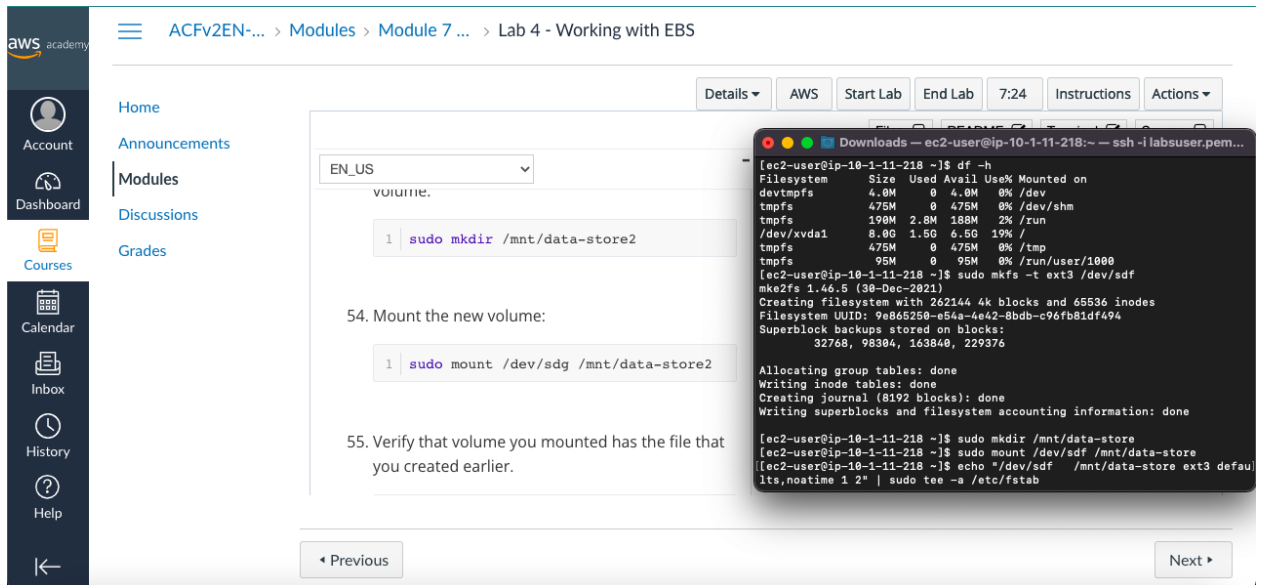
34.1

35. Filesystem Size Used Avail Use% Mounted on

36.2

37. devtmpfs	484M	0	484M	0%	/dev	38.3
39. tmpfs	492M	0	492M	0%	/dev/shm	40.4
41. tmpfs	492M	460K	491M	1%	/run	42.5
43. tmpfs	492M	0	492M	0%	/sys/fs/cgroup	44.6
45. /dev/xvda1	8.0G	1.5G	6.6G	19%	/	46.7
47. tmpfs	99M	0	99M	0%	/run/user/0	48.8
49. tmpfs	99M	0	99M	0%	/run/user/1000	
50. This is showing the original 8GB disk volume. Your new volume is not yet shown.						
51. Create an ext3 file system on the new volume:						
53. <code>sudo mkfs -t ext3 /dev/sdf</code>						52.1
54.						
55. Create a directory for mounting the new storage volume:						
57. <code>sudo mkdir /mnt/data-store</code>						56.1
58.						
59. Mount the new volume:						
61. <code>sudo mount /dev/sdf /mnt/data-store</code>						60.1

62. To configure the Linux instance to mount this volume whenever the instance is started, you will need to add a line to `/etc/fstab`.



63.1

64. `echo "/dev/sdf /mnt/data-store ext3 defaults,noatime 1 2" | sudo tee -a /etc/fstab`

65.

66. View the configuration file to see the setting on the last line:

67.1

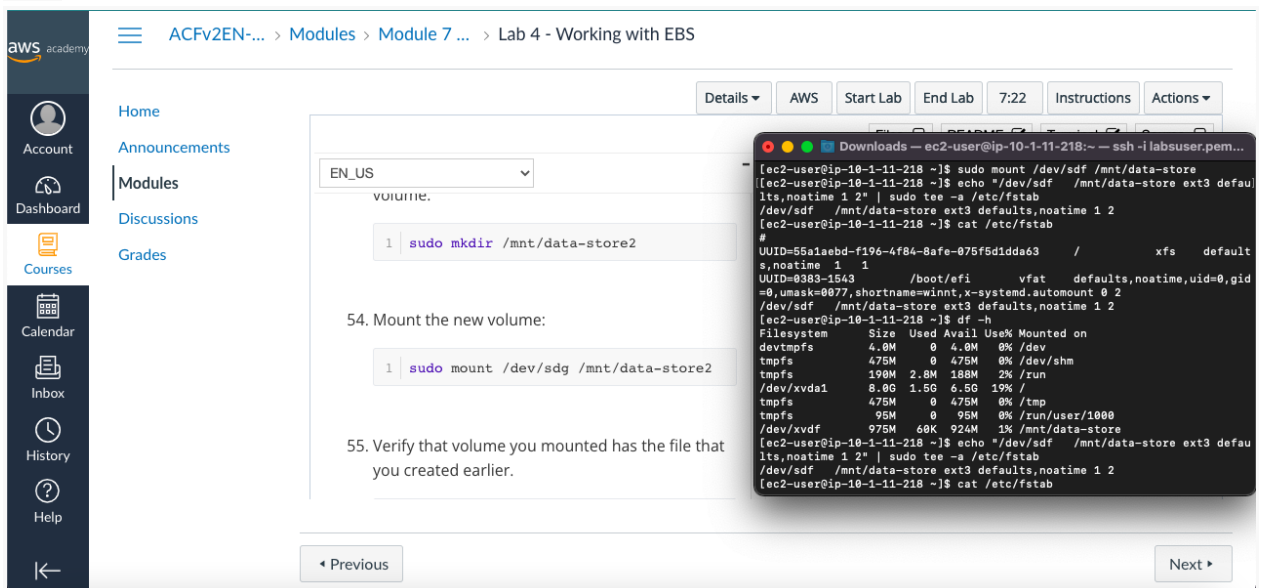
68. `cat /etc/fstab`

69.

70. View the available storage again:

71.1

72. `df -h`



73. The output will now contain an additional line - `/dev/xvdf`.

74.1

75. Filesystem Size Used Avail Use% Mounted on

76.2

77. devtmpfs 484M 0 484M 0% /dev

78.3

79. tmpfs 492M 0 492M 0% /dev/shm

80.4

81. tmpfs 492M 460K 491M 1% /run

82.5

83. tmpfs 492M 0 492M 0% /sys/fs/cgroup

84.6

85. /dev/xvda1 8.0G 1.5G 6.6G 19% /

86.7

87. tmpfs 99M 0 99M 0% /run/user/0

88.8

89. tmpfs 99M 0 99M 0% /run/user/1000

90.9

91. /dev/xvdf 976M 1.3M 924M 1% /mnt/data-store

92.

93. On your mounted volume, create a file and add some text to it.

94.1

95. `sudo sh -c "echo some text has been written > /mnt/data-store/file.txt"`

96.

97. Verify that the text has been written to your volume.

98.1

99. `cat /mnt/data-store/file.txt`

The screenshot shows the AWS Academy interface for a lab titled "Lab 4 - Working with EBS". The lab is part of "Module 7" and "ACFv2EN-...". The interface includes a sidebar with navigation options like Home, Announcements, Modules, Discussions, Grades, Courses, Calendar, Inbox, History, and Help. The main content area displays the lab steps:

- Step 54: Mount the new volume. The command provided is `sudo mount /dev/sdg /mnt/data-store2`.
- Step 55: Verify that volume you mounted has the file that you created earlier. The command provided is `cat /mnt/data-store/file.txt`.

A terminal window is overlaid on the right side of the interface, showing the execution of the following commands:

```

ls, noatime 1 2" | sudo tee -a /etc/fstab
/dev/sdf /mnt/data-store ext3 defaults,noatime 1 2
[ec2-user@ip-10-1-11-218 ~]$ cat /etc/fstab
#
UUID=55a1aebd-f196-4f84-8afe-075f5d1dda63 / xfs default
#,noatime 1 1
UUID=0383-1543 /boot/efi vfat defaults,noatime,uid=0,gid
=0,umask=0077,shortname=winnt,x-systemd.automount 0 2
/dev/sdf /mnt/data-store ext3 defaults,noatime 1 2
/dev/sdf /mnt/data-store ext3 defaults,noatime 1 2
[ec2-user@ip-10-1-11-218 ~]$ df -h
Filesystem      Size  Used Avail Use% Mounted on
devtmpfs        4.0M  0  4.0M  0% /dev
tmpfs           475M  0  475M  0% /dev/shm
tmpfs           190M  2.8M  188M  2% /run
/dev/xvda1      8.0G  1.5G  6.5G  19% /
tmpfs           475M  0  475M  0% /tmp
tmpfs           95M  0  95M  0% /run/user/1000
/dev/xvdf       975M  60K  924M  1% /mnt/data-store
[ec2-user@ip-10-1-11-218 ~]$ sudo sh -c "echo some text has been written
> /mnt/data-store/file.txt"
[ec2-user@ip-10-1-11-218 ~]$ cat /mnt/data-store/file.txt
some text has been written
[ec2-user@ip-10-1-11-218 ~]$

```

Task 5: Create an Amazon EBS Snapshot

In this task, you will create a snapshot of your EBS volume.

You can create any number of point-in-time, consistent snapshots from Amazon EBS volumes at any time. Amazon EBS snapshots are stored in Amazon S3 with high durability. New Amazon EBS volumes can be created out of snapshots for cloning or restoring backups. Amazon EBS snapshots can also be easily shared among AWS users or copied over AWS regions.

38. In the **AWS Management Console**, choose **Volumes** and select **My Volume**.

39. In the **Actions** menu, select **Create snapshot**.

The screenshot shows the AWS Management Console interface for creating a snapshot. The breadcrumb navigation at the top reads: EC2 > Volumes > vol-0dce37f0f30c4a474 > Create snapshot. The main heading is 'Create snapshot' with an 'Info' link. Below the heading is a sub-header: 'Create a point-in-time snapshot to back up the data on an Amazon EBS volume to Amazon S3.' The 'Details' section contains the following fields:

- Volume ID:** vol-0dce37f0f30c4a474
- Description:** A text input field with the placeholder 'Add a description for your snapshot' and a note '255 characters maximum.'
- Encryption:** Not encrypted (with an 'Info' link)

The footer of the console shows 'Feedback', 'Language', and copyright information for 2023.

40. Choose **Add tag** then configure:

- **Key:** Name
- **Value:** My Snapshot
- Choose **Create snapshot**

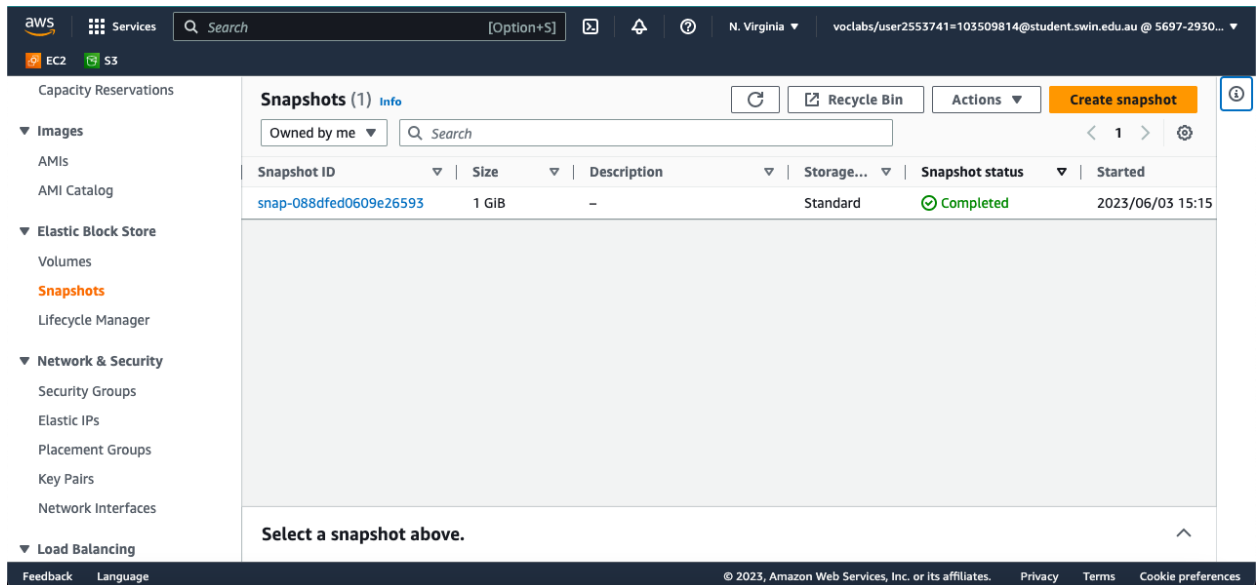
This screenshot shows the 'Create snapshot' page with the 'Tags' section expanded. The 'Details' section is partially visible at the top. The 'Tags' section includes an 'Info' link and a description: 'A tag is a label that you assign to an AWS resource. Each tag consists of a key and an optional value. You can use tags to search and filter your resources or track your AWS costs.' Below this, there is a table for adding tags:

Key	Value - optional	
Q Name	Q My Snapshot	Remove

Below the table is an 'Add tag' button and a note: 'You can add 49 more tags.' At the bottom of the console, there are 'Cancel' and 'Create snapshot' buttons.

41. In the left navigation pane, choose **Snapshots**.

Your snapshot is displayed. The status will first have a state of *Pending*, which means that the snapshot is being created. It will then change to a state of *Completed*.



Note: Only used storage blocks are copied to snapshots, so empty blocks do not occupy any snapshot storage space.

42. In your remote SSH session, delete the file that you created on your volume.

43. 1

44. `sudo rm /mnt/data-store/file.txt`

45.

EN_US

54. Mount the new volume:

```
1 sudo mount /dev/sdg /mnt/data-store2
```

55. Verify that volume you mounted has the file that you created earlier.

```
1 ls /mnt/data-store2/
```

You should see file.txt.

```

UID=55a1aebd-f196-4f84-8afe-075f5d1dda63 / xfs default
s,noatime 1 1 /boot/efi vfat defaults,noatime,uid=0,gid
=0,umask=0077,shortname=winnt,x-systemd.automount 0 2
/dev/sdf /mnt/data-store ext3 defaults,noatime 1 2
/dev/sdf /mnt/data-store ext3 defaults,noatime 1 2
[ec2-user@ip-10-1-11-218 ~]$ df -h
Filesystem      Size  Used Avail Use% Mounted on
devtmpfs        4.0M  0  4.0M   0% /dev
tmpfs           475M  0  475M   0% /dev/shm
tmpfs           190M  2.8M  188M   2% /run
/dev/xvda1      8.0G  1.5G  6.5G  19% /
tmpfs           475M  0  475M   0% /tmp
tmpfs           95M  0  95M   0% /run/user/1000
/dev/xvdf       975M  80K  924M   1% /mnt/data-store
[ec2-user@ip-10-1-11-218 ~]$ sudo sh -c "echo some text has been written"
> /mnt/data-store/file.txt
[ec2-user@ip-10-1-11-218 ~]$ cat /mnt/data-store/file.txt
some text has been written
[ec2-user@ip-10-1-11-218 ~]$ sudo mkdir /mnt/data-store2
[ec2-user@ip-10-1-11-218 ~]$ sudo mount /dev/sdg /mnt/data-store2
mount: /mnt/data-store2: special device /dev/sdg does not exist.
[ec2-user@ip-10-1-11-218 ~]$ ls /mnt/data-store2/
[ec2-user@ip-10-1-11-218 ~]$

```

46. Verify that the file has been deleted.

47. 1

48. `ls /mnt/data-store/`

49. Your file has been deleted.

The screenshot displays the AWS Academy interface for a lab titled 'Lab 4 - Working with EBS'. The main content area shows a lab step titled '43. Verify that the file has been deleted.' with a command prompt showing 'sudo rm /mnt/data-store/file.txt' and 'ls /mnt/data-store/'. A terminal window on the right shows the execution of these commands and the output of 'df -h' and 'cat /mnt/data-store/file.txt'.

Task 6: Restore the Amazon EBS Snapshot

If you ever wish to retrieve data stored in a snapshot, you can **Restore** the snapshot to a new EBS volume.

Create a Volume Using Your Snapshot

44. In the **AWS Management Console**, select **My Snapshot**.
45. In the **Actions** menu, select **Create volume from snapshot**.
46. For **Availability Zone** Select the same availability zone that you used earlier.
47. Choose **Add tag** then configure:
 - **Key:** **Name**

- **Value: Restored Volume**

Not enabled for selected snapshot

Encryption [Info](#)
Use Amazon EBS encryption as an encryption solution for your EBS resources associated with your EC2 instances.
☐ **Encrypt this volume**

Tags - optional [Info](#)
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: Value - optional:

You can add 49 more tags.

- Choose **Create volume**

48. Note: When restoring a snapshot to a new volume, you can also modify the configuration, such as changing the volume type, size or Availability Zone.

Attach the Restored Volume to Your EC2 Instance

48. In the left navigation pane, choose **Volumes**.

49. Select **Restored Volume**.

Volumes (1/4) [Info](#)

Name	Volume ID	Type	Size	IOPS	Throughput	Snapshot
<input checked="" type="checkbox"/> Restored Volu...	vol-06f5ecfc236ff1603	gp2	1 GiB	100	-	snap-088dfed...
<input type="checkbox"/> -	vol-07681d4c28f1d6bb5	gp3	8 GiB	3000	125	snap-02cac53...
<input type="checkbox"/> -	vol-06325b973bb1ce66e	gp3	8 GiB	3000	125	snap-02cac53...
<input type="checkbox"/> -	vol-0dce37f0f30c4a474	gp2	1 GiB	100	-	-

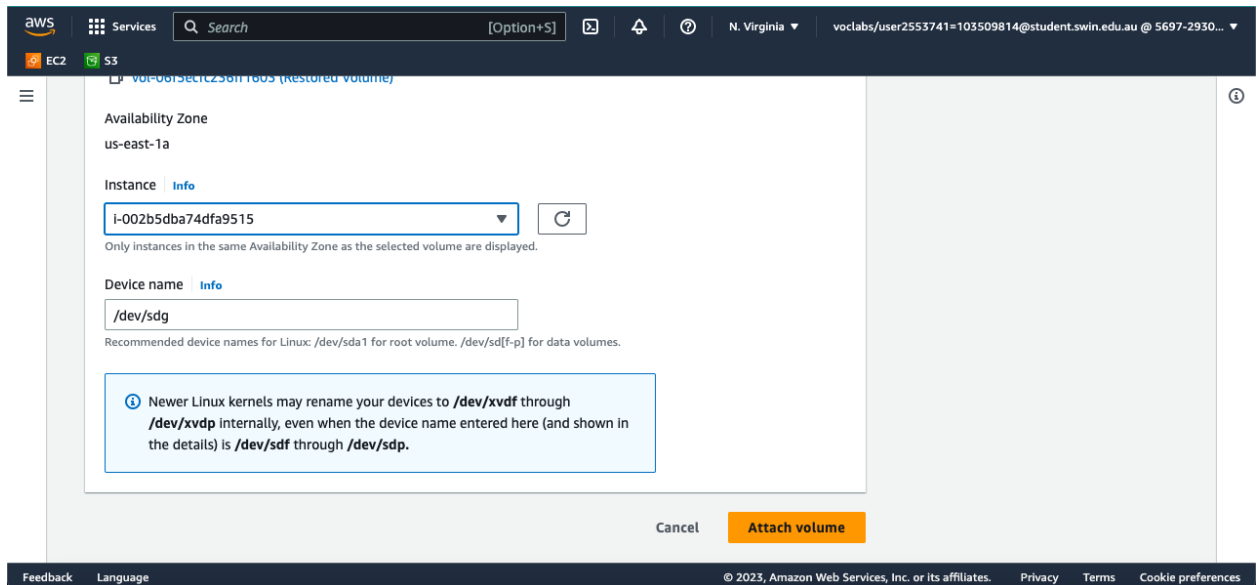
Volume ID: vol-06f5ecfc236ff1603 (Restored Volume)

Details	Status checks	Monitoring	Tags
Volume ID vol-06f5ecfc236ff1603 (Restored Volume)	Size 1 GiB	Type gp2	Volume status Okay
AWS Compute Optimizer finding This user is not authorized to call AWS Compute Optimizer I	Volume state Available	IOPS 100	Throughput -

50. In the **Actions** menu, select **Attach volume**.

51. Choose the **Instance** field, then select the (Lab) instance that appears.

Note that the **Device** field is set to `/dev/sdg`. You will use this device identifier in a later task.



52. Choose **Attach volume**

The volume state is now *in-use*.

Mount the Restored Volume

53. Create a directory for mounting the new storage volume:

54. 1

55. `sudo mkdir /mnt/data-store2`

56.

57. Mount the new volume:

58. 1

59. `sudo mount /dev/sdg /mnt/data-store2`

60.

61. Verify that volume you mounted has the file that you created earlier.

62. 1

63. `ls /mnt/data-store2/`

64. You should see file.txt.

The screenshot shows the AWS Academy lab interface for 'Lab 4 - Working with EBS'. The left sidebar contains navigation links: Home, Announcements, Modules, Discussions, Grades, Courses, Calendar, Inbox, History, and Help. The main content area displays a step-by-step guide. Step 54, 'Mount the new volume', includes a terminal command: `1 sudo mount /dev/sdg /mnt/data-store2`. Step 55, 'Verify that volume you mounted has the file that you created earlier', includes a terminal command: `1 ls /mnt/data-store2/`. Below the commands, it states 'You should see file.txt.' An inset terminal window shows the execution of these commands, including disk usage statistics, mounting the volume, creating a directory, and listing the contents of the mounted volume, which shows 'file.txt'.

Conclusion

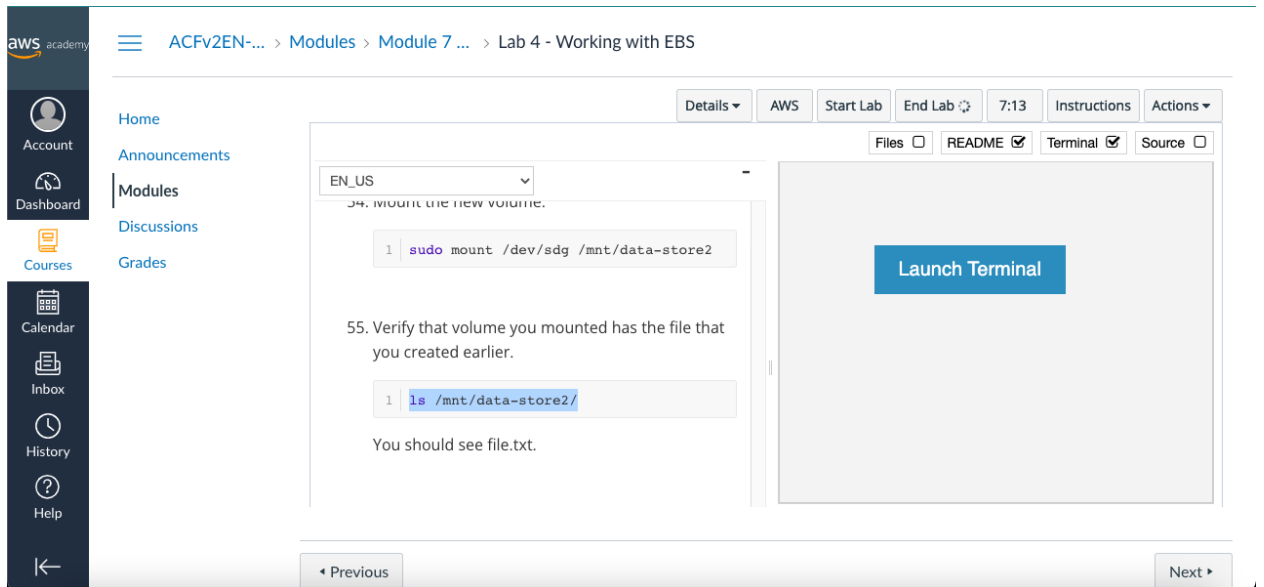
Congratulations! You now have successfully:

- Created an Amazon EBS volume
- Attached the volume to an EC2 instance
- Created a file system on the volume
- Added a file to volume
- Created a snapshot of your volume
- Created a new volume from the snapshot
- Attached and mounted the new volume to your EC2 instance
- Verified that the file you created earlier was on the newly created volume

Lab Complete

Congratulations! You have completed the lab.

56. Choose **End Lab** at the top of this page and then click **Yes** to confirm that you want to end the lab.
- A panel will appear, indicating that "DELETE has been initiated... You may close this message box now."



57. Choose the **X** in the top right corner to close the panel.

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