1. In the AWS management Console, on the Services menu, click EC2
2. In the navigation pane, click Instances.

Launch an Amazon EC2 Instance in any region of your choice.

3. Note the Availability zone of the instance.
4. In the left navigation pane, click Volumes.

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

5. Click Create Volume. You can click on Encrypt to encrypt the volume.
6. Enter the following values leaving other fields at their default values:
   - Volume Type: General Purpose SSD (GP2)
   - Size (GiB): 1
   - Availability Zone: Select the same availability zone as your Ec2 instance.
   - Tags: Create additional tags
   - In the tag editor, enter:
     - Key: Name (Case Sensitive, so type it exactly as shown)
     - Value: My Volume
7. Click Create Volume, then click Close.

Your new volume will appear in the list, and will move from the creating state to the available state. You can now attach your new volume to the Amazon EC2 instance.

8. Select My Volume so that the row is highlighted.

If you cannot see the volume, click the refresh icon

9. In the Actions menu, select Attach Volume.
10. Click the Instance Field, Then select the instance that appears.

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

11. Click Attach.

The volume state is now in-use.

- Task 3: Login to your Amazon EC2 Instance

To perform the next operations on your volume, you will login to the Amazon EC2 instance.

12. In this task, you will download a keypair and use it to Connect section, click Download PPK.

You will be using PuTTY to connect to Amazon EC2 instance.

13. Launch PuTTY.
14. For host name, enter the public IP address of your EC2 instance.
15. In the connection list expand SSH.
16. Click Auth.
17. In the private key for authentication box, browse to the .ppk file that you downloaded earlier then click open.
18. In the PuTTY Security alert dialog box that opens click yes to add the key to PuTTY's Cache.
19. For login as: type ec2-user and press Enter. You are now logged in to web server instance.

In this task you will add the new volume to a linux instance as a n 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.

20. Copy and paste this command to view the current storage available on your instance:

```
df -h
```

You should see output similar to:

```
Filesystem Size Used Avail Use% Mounted on
```

```
devtmpfs 488M 60K 488M 1% /dev
tmpfs 497M 0 497M 0% /dev/shm
/dev/xvda1 7.8G 982M 6.7G 13% /
```

This is showing the original 8GB disk volume. Your new volume is not yet shown.

21. Copy and paste this command to create an ext3 file system on the new volume:

```
sudo mkfs -t ext3 /dev/sdf
```

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

```
sudo mkdir /mnt/data-store
```

23. Mount the new volume:

```
sudo mount /dev/sdf /mnt/data-store
```

To congigure the /linux instance to mount this volume whenever the instance is started, you will need to add a line to /etc/fstab.

24. Run this command to add the configuration line:

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

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

```
cat /etc/fstab
```

26. View the available storage again:

```
df -h
```

The output will now contain an additional line, shown here as /dev/xvdf.

```
Filesystem Size Used Avail Use% Mounted on
devtmpfs 488M 60K 488M 1% /dev
tmpfs 497M 0 497M 0% /dev/shm
/dev/xvda1 7.8G 982M 6.7G 13% /
/dev/xvdf 976M 1.3M 924M 1% /mnt/data-store
```

27. Close your SSH session window.

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

28. Return to the EC2 management console in your web browser.

You should still be on the volumes page. If not, click Volumes in the left navigation pane.

29. Select your volume so that the row is highlighted.
30. In the actions menu, select Create Snapshot.
31. In the Create Snapshot dialog box, for description type: My Snapshot
32. Click Create, then click Close.

Your snapshot will be listed in the snapshots console.

33. In the left navigation pane, click Snapshots.

Your snapshot is displayed. The state will start with a state of pending, which means that the snapshot is being created. It will then change to a state of completed. Only used storage blocks are copied to snapshots, so empty blocks do not take any snapshot storage space.

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

34. Select your snapshot so that the row is highlighted.
35. In the Actions menu, select Create Volume.

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

36. Enter the following values, leaving other fields at their default values:
    - Availability Zone: Choose a different availability zone this time.
    - Tags: Create additional tags
    - In the tag editor, enter:
        - Key: Name (Case Sensitive, so type it exactly as shown)
        - Value: Restored Volume
37. Click Create Volume, then click Close.
38. In the left navigation pane, click Volumes.

You should now see your new Restored Volume