Linux Academy

Hands-On Training

Restoring Files from EBS Volume Snapshots

Contents

Introduction

In this lab, we will learn how to restore files from EBS volume snapshots. This lab will begin by creating a snapshot of the data we will want to restore and then we will perform the actions needed to restore the files. While we will be performing all steps manually in this lab to better understand the process, please note that these actions can be scripted and automated, if needed.

Getting Started

Log into the **AWS Console** using the credentials provided on the Live! Lab page. From there, navigate to your **EC2 Dashboard**, and locate the **IP address** of the existing instance.

Open a **terminal**, and SSH into that instance using the given IP address, *linuxacademy* username, and *123456* password. You do not need a PEM key to access this server.

Run `df -h` to view the mounted EBS volume. It is listed as `/dev/xvdf1` and mounted on the `/mnt` directory.

Navigate to the `/mnt` directory, and list the files:

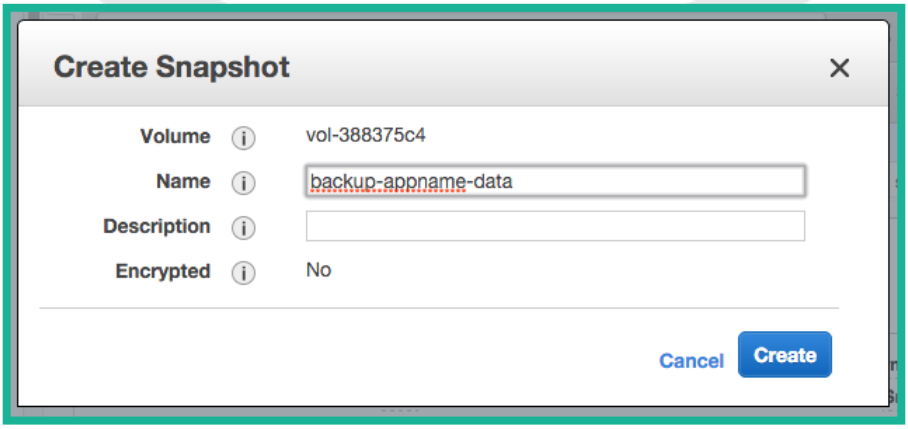
```
cd /mnt
ls
```

A file titled *restore-this-file* is the file we are restoring.

Backing Up the Volume

Return to the **AWS Console**, and view the Elastic Block Store **Volumes** located under the **EC2 Dashboard**. Two volumes are listed, but we will be working with the volume with the **Type** of *standard*. Right click and select **Create Snapshot**, or select it from the **Actions** menu.

We named our's *backup-appname-date* and put the same for the description. Name your's, then press **Create**.



If you navigate to the **Snapshots** page (under **Elastic Block Store** on the EC2 Dashboard), you can watch as it is created. Wait until the snapshot is finished before moving on.

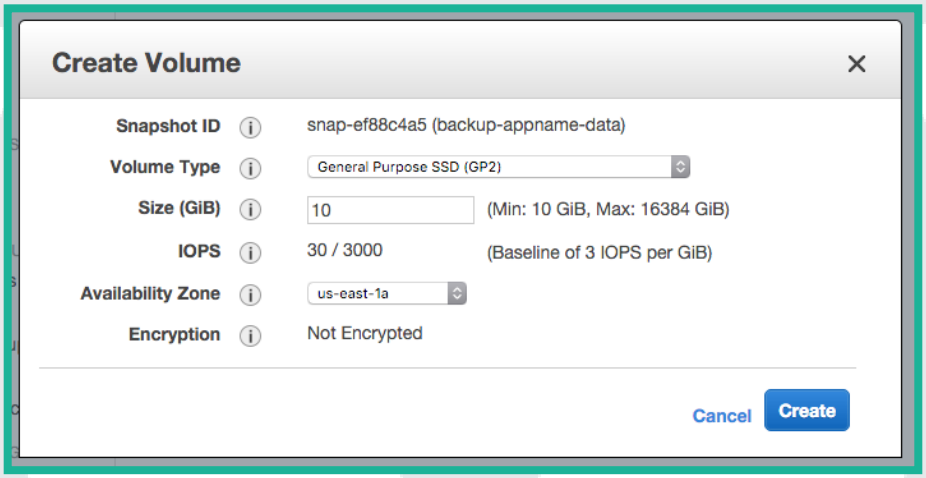
Removing the File

Return to your **terminal**. You should still be in the `/mnt` directory. Remove the *restore-this-file* file:

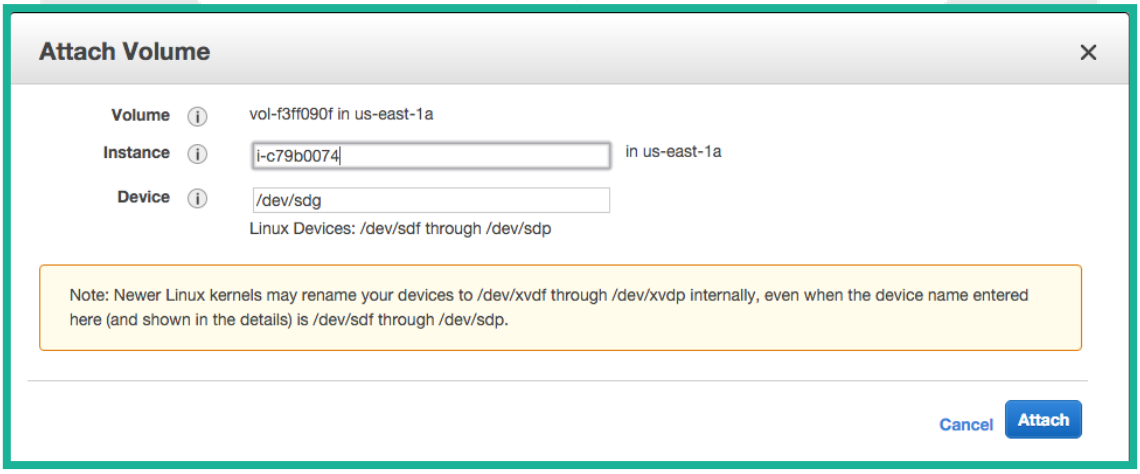
```
sudo rm restore-this-file
```

Restoring Files from the Snapshot

From the **Snapshots** page of the EC2 Dashboard, right-click (or select **Action**), and press **Create Volume**. All default values are acceptable. Press **Create**. This makes a volume that we can mount in a restore location to copy any missing files over.



When the volume has finished creating, right click/select **Actions** and press **Attach Volume**. Choose the *WebServer* **Instance**; the default device is appectable. Press **Attach**.



Return to your terminal, and navigate to the `/dev` directory:

```
cd /dev
```

If you run `ls`, you will see a partition titled *xvdg1*. This is the partition we need to mount, but first we need a location to mount to:

```
sudo mkdir /restore
```

This creates a directory in the root directory to mount your snapshot's partition. Next, mount the partition:

```
sudo mount /dev/xvdg1 /restore
```

Should you navigate to this directory and list the contents of the directory, you can see the same *restore-this-file* file that we deleted. This can be restored to the appropriate volume easily with the copy command:

```
sudo cp restore-this-file /mnt/
```

With that, you have successfully restored an object to your volume. For a more advanced exercise, consider how you would automate this process (not addressed in this lab).