# Using AWS EBS Snapshots to Restore Files to an AWS EBS Volume

## **Introduction**

In this hands-on lab, we will learn how to restore a file from an EBS snapshot to its original location in an EBS volume. This is a useful skill for restoring files after an accidental deletion.

To accomplish this, we will:

* Create an EBS snapshot
* Create a new volume from the snapshot
* Attach the new volume to the existing EC2 instance
* Restore the file to its original location on the EBS volume

Log in to the AWS Management Console using the credentials provided on the lab instructions page.

Make sure you are using the us-east-1 region.

## **Create an EBS Snapshot**

1. In the AWS Management Console, navigate to the EC2 service.
2. Click **Running Instances**.
3. In the Description tab at the bottom of the page, copy the **IPv4 Public IP** address to your clipboard.
4. Open your terminal application in a new window.
5. In your terminal window, run the following command:

ssh cloud\_user@<PUBLIC\_IP\_ADDRESS>

1. Type yes at the prompt.
2. Type the password listed in the credentials at the password prompt. You will be prompted to change your password, then logged out. You'll have to log in again with the new password.
3. Display the file systems and their sizes:

df –h or lsblk

1. Mount the volume:

Sudo mount /dev/xvdf /data

1. List the contents of the directory:

ls

1. Go back to your AWS Management Console window, and click **Volumes** in the left sidebar. Check the box next to the volume whose Attachment Information column shows **/dev/xvda** (You can see it by either making that column wider, or selecting the volume and looking in the Description tab in the lower part of the screen).
2. Click **Actions** > **Create Snapshot**.
3. On the Create Snapshot page, type **appname-backup-date** for the Description.
4. Click **Create Snapshot**, then **Close**.
5. Click **Snapshots** in the left sidebar.
6. When it's done being created, go back to your terminal window, and delete the restore-this-file file:

sudo rm restore-this-file

1. Enter our password (the one we reset when we first logged into the server) at the prompt.
2. List the contents of the directory:

ls

1. restore-this-file should no longer appear in the directory.

## **Create an EBS Volume from the Snapshot**

1. On the Snapshots page of the AWS Management Console, click **Actions** > **Create Volume**.
2. On the Create Volume page, configure the following settings:
   * Volume Type: **General Purpose SSD (GP2)**
   * Size (GiB): **8**
   * Availability Zone: **us-east-1a**
3. Click **Create Volume**, then **Close**.
4. Click **Volumes** in the left-hand menu, and verify that its State is **available**.
5. Select the volume we just created (with a status of available) from the list.
6. Click **Actions** > **Attach Volume**.
7. In the Attach Volume menu, select the **WebServer** instance from the Instance dropdown.
8. Click **Attach**.
9. Go back to your terminal window.
10. Elevate to the root user (using the new password we set earlier):

su

1. Change to the /dev directory:

cd /dev

1. List the contents of the directory:

ls

1. Make a new directory called /restore:

mkdir /restore

1. Mount the new volume we created to the /restore directory:

mount /dev/xvdg /restore

1. Change to the /restore directory:

cd /restore

1. List the contents of the directory:

ls