Expanding EBS Volumes on Linux Instances

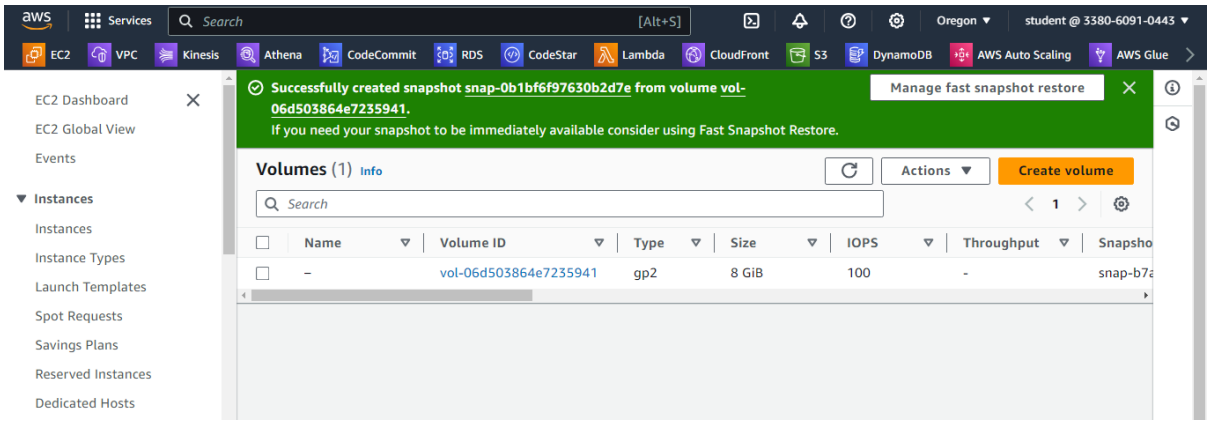
This hands-on introduces the EBS volumes and how you can increase the storage space of an existing EBS volume without losing the data on the volume. To do this, migrate your data to a larger volume, and then extend the file system on the volume to recognize the newly available space. After you verify that your new volume is working properly, you can delete the old volume

Steps:

1- Clone the EBS volume
2- Create a New EBS Volume
3- Check The Extended Linux File System

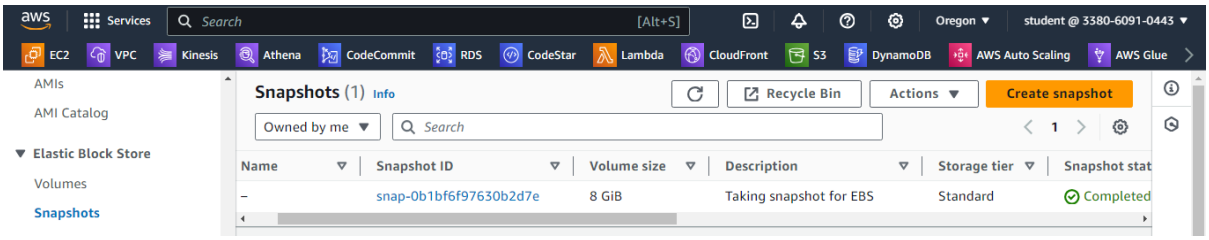
1-Clone the EBS volume:

- Click on Instances under the Instances Section
- You need to stop the instance before performing the clone for EBS volume
- With the instance selected, take note of the Availability Zone of your instance as this information
- Select the Storage option and click on Volume ID (starting with vol-xxx) for your instance
- Now, with the EBS volume selected, right-click the checkbox, and click on Create Snapshot
- Enter a Description and then click on the Create Snapshot button to trigger the snapshot process



2-Create a New EBS Volume:

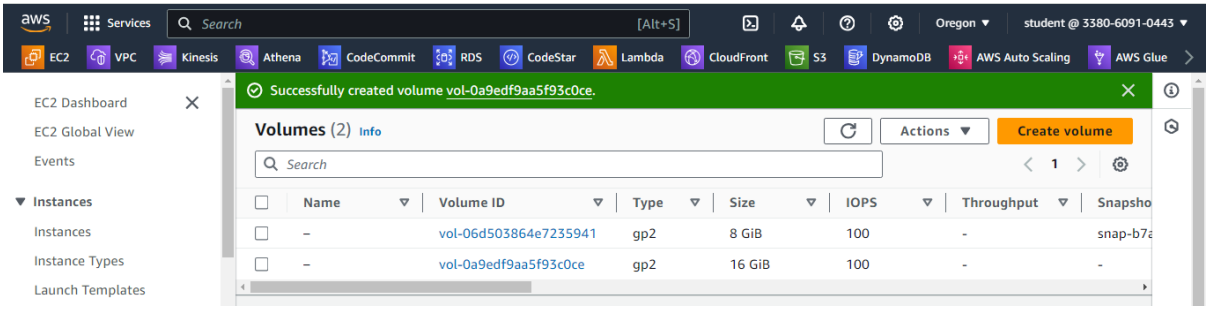
- Click on Snapshots to check out the progress



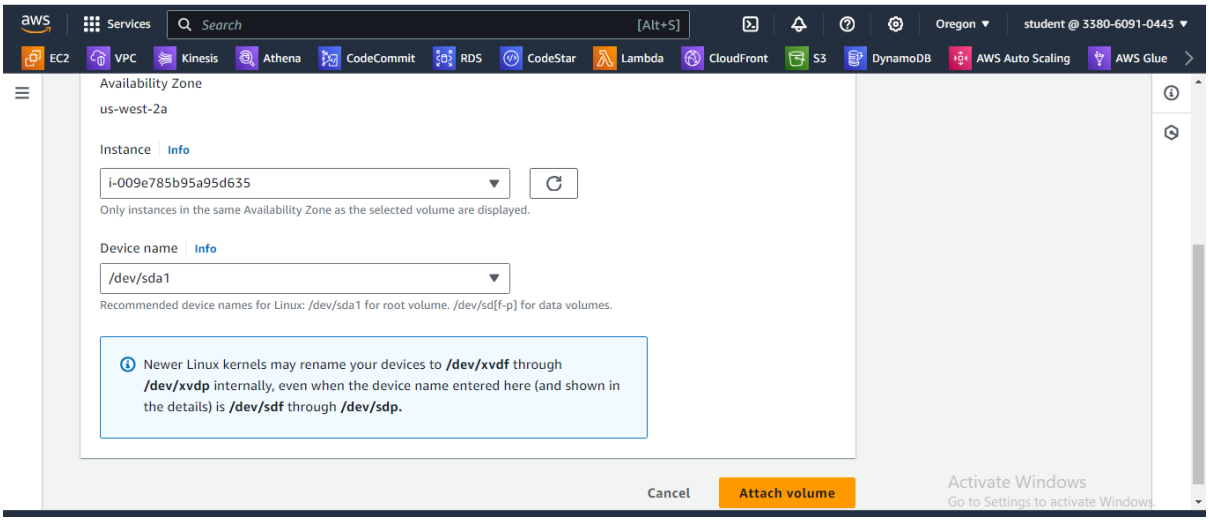
- With the snapshot selected, click on the Actions button and then on Create volume from snapshot

- In the Create Volume form, carefully set the following values before clicking Create Volume:

- Size (GB): 16 (the default value is the same as the original snapshot)
- Availability Zone: Select the availability zone where the instance is launched, otherwise, it won't work



- To detach the smaller volume from the instance, you need to select the volume, click on Actions, and followed by Detach Volume
- Now select the other EBS volume that you just created, Click Actions, then Attach Volume



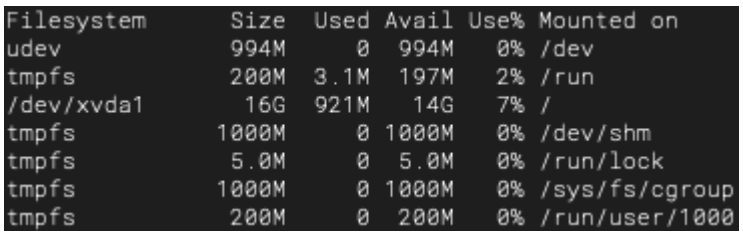
- Select the instance and start it again by clicking Instance state > Start instance

3- <u>Check The Extended Linux File System:</u>

- Click Instances in the EC2 console
- Download the Key Pair in the PEM format from the Credentials section of this lab for SSH access
- On the AWS console select the instance called cloudacademylabs and click on the Connect button
- Copy the Public IP address for your instance from EC2 Instance Connect section

- If you are using Windows, follow the instruction on this guide to connect using PuTTY
- Use the free-disk utility to check out the results.

$df -h



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Filesystem      Size  Used Avail Use% Mounted on
udev            994M     0  994M   0% /dev
tmpfs           200M  3.1M  197M   2% /run
/dev/xvda1       16G  921M   14G   7% /
tmpfs          1000M     0 1000M   0% /dev/shm
tmpfs           5.0M     0  5.0M   0% /run/lock
tmpfs          1000M     0 1000M   0% /sys/fs/cgroup
tmpfs           200M     0  200M   0% /run/user/1000
```