Exercise15
Elastic Block Store (EBS)

1. Login to your IAM user
2. Start the two ec2 instances, Linux Web Server and Windows Web Server, that you created in the previous exercise
3. Check the number of hard disks in the instances
   a. Go to the Windows ec2 (you need to download the remote desktop file again because the public address has changed), right click on the Windows icon (bottom left corner), click Disk management. You will see only one hard disk. Take a snapshot (with your IAM username)
   b. Go to the Linux ec2, type fdisk -l. Here also you will see only one hard disk. Take a snapshot (with your IAM username)
4. Create EBS
   Search for EC2, click Volumes under Elastic Block Store, click Create volume, size 2 GiB, (make sure you choose the same AZ where your ec2 machines are), click Create volume
5. Attach EBS to an instance
   a. Select your EBS, click Actions, click Attach volume, select the Windows instance, device name xvdf, click Attach volume.
      You can see it (Disk1) in the Windows instance now. Right click on it, click Online, then again right click, click Initialize disk, click OK, right click again, click New Simple volume, click Next, click Next, select FAT32, volume label ebs, next, finish. Your Disk1 (EBS) should be "healthy" now. Take a snapshot (with your IAM username)
      Create a file testfile in D: write *Hello From EBS*, close it. Right click on the ebs disk, click Offline, close the Windows machine.
      Go back to your EBS volume (in AWS dashboard), Actions, Detach volume
      (The EBS volume state changes from In-use to Available)
   b. Select your EBS, click Actions, click Attach volume, select the Linux instance, device name /dev/sdf, click Attach volume.
      In the Linux machine (putty), type fdisk -l. It will show the Disk /dev/xvdf below the Disk /dev/xvda. Take a snapshot (with your IAM username)
      Type mount /dev/xvdf1 /media, df -h, cd /media, cat testfile.txt. You will see the text that you wrote in this file when the disk was attached to the Windows machine! Take a snapshot (with your IAM username) that shows output of all the commands starting mount /dev/xvdf1 /media.
      Type cd .., umount /media, df -h
6. **Cleanup:**
   a. Detach EBS; Delete EBS.
   b. Stop EC2 instances. **Do NOT terminate them.** We will use them later.
7. Key Takeaways:
   a. EBS can be attached to Linux or Windows machines
   b. EBS can NOT be shared by multiple machines because it is a Storage Area Network (SAN) device.

Sources: https://vipingupta.gumroad.com/