On Devices naming on Linux Instances in EC2

When you attach a volume to your instance, you include a device name for the volume. This device name is used by Amazon EC2. The block device driver for the instance assigns the actual volume name when mounting the volume, and the name assigned can be different from the name that Amazon EC2 uses.

Depending on the block device driver of the kernel, the device might be attached with a different name than what you specify. For example, if you specify a device name of /dev/sdh, your device might be renamed /dev/xvdh or /dev/hdh by the kernel; in most cases, the trailing letter remains the same. In some versions of Red Hat Enterprise Linux (and its variants, such as CentOS), even the trailing letter might also change (where /dev/sda could become /dev/xvde). In these cases, each device name trailing letter is incremented the same number of times. For example, /dev/sdb would become /dev/xvdf and /dev/sdc would become /dev/xvdg. Amazon Linux AMIs create a symbolic link with the name you specify at launch (i.e. /dev/sd*) that points to the renamed device path (i.e. /dev/xvd*), but other AMIs might behave differently. So in some AMIs you might not be able to see your drive with the launch name in the /dev directory. You will only see it as /dev/xvd* depending on naming conventions.

Look at http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/device_naming.html for more on naming conventions.

The renaming is caused by the "xen-blkfront" driver (part of Xen Hypervisor), which allows virtual machines (e.g. EC2 instances) to access the underlying block devices. That is why you are seeing this behaviour which is different compared to the naming you would see physical machines.

While you don't need to use "/dev/xvdf" for the commands in the Step 12 of your lab handout (you can simply use /dev/sdf). This only works because we were using Amazon Linux AMI, which creates a symbolic link as discussed earlier. In other AMIs, e.g. Ubuntu, you would need to use the renamed device path ("/dev/xvd*") as specified in commands in Step 12, otherwise it won't work.