Midterm Exam/Project

Tasks:

A) Adding Drive, Partitioning, and Formatting *(Traditional file system)*

1. Add 1 hard disk (SATA, Size: 10 GB)
2. Partition into two (not necessarily the same size for each partition).
3. Format the two partitions with ext4 and ntfs respectively.
4. Create two directories inside your home directory. These directories will serve as your mount points.
   Note: The name of directory 1 must be your *course and first name*. Ex., BSIT4A_ian while directory 2 must be your *course and last name*. Ex., BSIT4A_benitez.
5. Manually mount Partition 1 in the user-created directory inside the user's home directory (*mount point 1).*
6. Automount Partition 2 in the user-created directory inside the user's home directory *(mount point 2).*
7. In your home directory, invoke the change attribute command for the first mount point:
   sudo chmod 777 <directory name of mount point 1>
   Ex. sudo chmod 777 BSIT4A_ian
8. Create an empty file inside the *mount point 1*. The filename should be "std_partitioning.txt".
9. Unmount *mount point 1*.
10. Unmount *mount point 2*.

B) Adding Drive, Partitioning, and Formatting *(LVM)*

1. Add 4 hard disks (SATA, Size: 5 GB)
2. Create 4 physical volumes.
3. Create 2 volume groups.
   Name the volume groups with this pattern: *<VG_your initial-1> , <VG_your initial-2>*
   Ex. VG_ipb1, VG_ipb2
4. Add PV 1 and PV 2 to VG 1.
5. Add PV 3 and PV 4 to VG 2.
6. Perform **linear LVM** on VG 1.
   Setup 2 Linear logical volumes.
   Linear logical volume 1:
   Name: *<LV_your initial-1>* Ex. LV_ipb-1
   Size: 7 GB
   Linear logical volume 2:
   Name: *<LV_your initial-2>* Ex. LV_ipb-2
   Size: Utilize all remaining space on VG 1
7. Perform **striped LVM** on VG 2:
   Setup a striped logical volume, utilizing all disk capacity.
   Striped logical volume:
   Name: <LV_your initial-striped> Ex. LV_ipb-striped
   Size: 5 GB (when viewed using LVM display commands, not exactly 5 GB. It's just okay)

   Note: Use other LVM display commands to verify your work such as lvmdiskscan, pvdisplay, pvs, vgscan, vgs, vgdisplay, lvs, and lvdisplay. Use these commands based on your needs/requirements.

Preparation of evidence that the learning tasks were performed successfully:

1. The task should be properly documented using **MS Word** or **Libre Office**.
2. For each key step, provide a screen shot and short description.
3. Include also in the documentation the screenshot of the outputs of LVM display commands like pvs, vgs, lvs, etc., to verify that the key steps were properly executed.
4. Save as **PDF** (File, export)
5. Submit the PDF to LeOnS portal.