|  |  |
| --- | --- |
| Linux - Lab 4  Disk Management |  |

# To be handed in:

After completing the tasks, capture the output of the following commands (run as root) into a text file and submit:

* fdisk –l | grep sd
* df –h
* swapon
* cat /etc/fstab
* lvdisplay

# Task #1 Adding Hard disks to the environment.

Add three SCSI HD’s to your Linux virtual machine. The first is a 2 GB HD, the second is a 7 GB HD and the third is a 3 GB HD

**Solution:**

**Poweroff the VM**

**Edit the VM**

**Click on Hard Disk – ADD – Follow the instructions**

# Task #2 Partitioning Disk Drives

Make the following partitions on the **first hard drive that was added (2GB)** as follows (the partitions have to be configured to be mounted permanently):

|  |  |  |
| --- | --- | --- |
| Mount Point | Size | File System/Options |
| /2GB/apps | 200MB | ext3 |
| /2GB/data | 400MB | xfs |
|  | 700MB | swap |

Su

Fdisk –l | grep /dev/sd

Fdisk /dev/sdc

N = for creating NEW partition

Press enter until LAST sector when u enter +10G

W = write to disk

Mkdir /2GB/apps = mount point

Mkfs.ext3 /dev/sdc1

Gedit /etc/fstab = make sure u have below lines in gedit

/dev/sdb1 /2GB/apps ext3 defaults 0 0

/dev/sdb2 /2GB/data xfs defaults 0 0

Mount –a

M = for help

P = to see if you have created new partition

# Task #3 Using LVM to create partitions

Refer to the partition table below. Using LVM, create a Volume Group using the **second and third hard drives that were added**, and then create Logical Volumes to partition the Volume Group.

The Volume Group should be named vg\_data.

The Logical Volumes should be named to match their mount point (i.e. lv\_docs, lv\_pics).

|  |  |  |
| --- | --- | --- |
| Mount Point | Size | File System/Options |
| /vg\_data/lv\_docs | 4GB | ext4 |
| /vg\_data/lv\_pics | 5GB | ext3 |

Fdisk –l | grep /dev/sd

Pvcreate /dev/sdc

Vgcreate vg\_group /dev/sdc <add more if desired>

Lvcreate –n lv\_docs - -size 5G vg\_group

Lvdisplay vg\_group

LVs will be saved at /dev/vg\_group/lv\_docs

Mkdir /vg\_group

Mkdir /vg\_group/lv\_docs

Mkfs.ext4 /dev/vg\_group/lv\_docs

Gedit /etc/fstab = make sure u have below lines in gedit

/dev/vg\_group/lv\_docs /vg\_group/lv\_docs ext4 defaults 0 0

/dev/vg\_group/lv\_pics /vg\_group/lv\_pics ext4 defaults 0 0

Mount –a