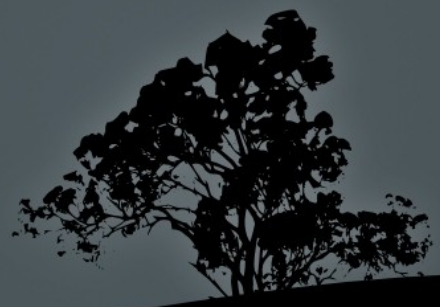
LPIC-1 101-400 – Lesson 17 – Lab

* **Enter into your Lab Environment**
  (Do **NOT** try this Lab on a live environment!)

- **#** **screen** # create two **screen** shells
- **#** **cat /proc/partitions** # see partitions detected by kernel
- **#** **fdisk -l** # list partitions from all disks
- **#** **fdisk /dev/vdb** # partition **vdb**!
- **:** **p** # print partition table of **vdb**. Make sure it is empty
- **:** **o** # create a DOS disklabel (aka partition layout)
- **:** **p** # verify the disklabel
- **:** **n** # create a new partition
- **:** **p** # a primary partition
- **:** **1** # it's id should be **1** (**vdb1**)
- **First sector: default**
- **:** **+8G** # size 8GB
- **:** **p** # print to verify



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- : **n** # create a new partition
- : **e** # an extended partition
- : **2** # ID: vdb2
- **First sector: default**
- **Last sector: default**
- : **p** # print partition table to see the extended partition
- : **n** # create a new partition
- : **l** # logical partition
- **First sector: default**
- : **+2G** # size 2GB
- : # press 'Enter' to select the default sector
- : **+2000G** # size 2GB
- : **t** # change type
- : **5** # of partition 5 (vda5)
- : **82** # Hex code 82 for Swap

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- **:** **p** # print partition list
- **:** **n** # new partition
- **:** **l** # logical
- **First sector: default**
- **Last sector: default**
- # **cat /proc/partitions** # switch to another shell and check partitions seen by kernel
- **:** **p** # print partition table (switch back to the first shell)
- **:** **v** # verify partition table
- **:** **w** # write changes
- # **fdisk -l /dev/vdb** # check partition table from disk
- # **cat /proc/partitions** # check the kernel partition table again. Any changes?
- # **mkfs -t ext4 -L RECOVERY /dev/vdb1** # create an **ext4** filesystem on **vdb1** with the RECOVERY label
- # **mkfs.ext4 -L BACKUP /dev/vdb6** # create an **ext4** filesystem on **vdb6** with the BACKUP label

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- # **mount /dev/vdb1 /mnt** # mount the **vdb1** filesystem on the **/mnt** directory
- # **ls -la /mnt** # list the filesystem's contents
- # **cp -a /etc /mnt** # copy the /etc directory to the **vdb1** filesystem
- # **ls -la /mnt** # list contents again
- # **umount /mnt** # unmount the **vbd1** filesystem from /mnt
- # **ls -la /mnt** # Any differences now?
- # **mkswap /dev/vdb5** # format the swap partitio**n**
- # **free -m** # check swap partition stats
- # **swapon /dev**/sdb5 # start swapping on **sdb5**
- # **free -m** # did it work?
- # **swapoff /dev**/sdb5 # disable swapping on **sdb5**
- # **free -m** # what do you see now?

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- **# fdisk /dev/vdb** # edit **vdb** partition table
- **: p** # print partition table and take note of the disklabel
- **: g** # change the partition layout (disklabel) to **GPT**
- **: p** # check the disklabel again
- **: n** # new partition. How many partitions can you create?
- **First sector: default**
- **: +8G** # size 8GB
- **: p** # check the partition table
- **: v** # verify
- **: q** # do NOT save changes!
- **# fdisk -l /dev/vdb** # what do you see?
- **# cat /proc/partitions** # any changes?

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