24.6. LABS 1



## **Exercise 24.1: Creating a RAID Device**

Normally when creating a **RAID** device we would use partitions on separate disks. However, for this exercise we probably don't have such hardware available. Thus we will need to have two partitions on the same disk.

The process will be the same whether the partitions are on one drive or several (Although there is obviously little reason to actually create a **RAID** on a single device).

- 1. Create two 200 MB partitions of type raid (fd) either on your hard disk using fdisk, or using LVM.
- 2. Create a RAID 1 device named /dev/md0 using the two partitions.
- 3. Format the RAID device as an ext4 filesystem. Then mount it at /myraid and make the mount persistent.
- 4. Place the information about /dev/md0 in /etc/mdadm.conf file using mdadm. (Depending on your distribution, this file may not previously exist.)
- 5. Examine /proc/mdstat to see the status of your **RAID** device.

## Solution 24.1

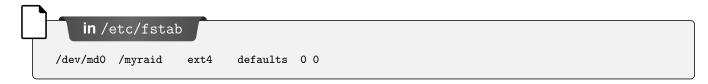
1. If you need to create new partitions do:

```
$ sudo fdisk /dev/sda
```

and create the partitions as we have done before. For purposes of being definite, we will call them /dev/sdaX and /dev/sdaY. You will need to run **partprobe** or **kpartx** or reboot after you are done to make sure the system is properly aware of the new partitions.

```
2. $ sudo mdadm -C /dev/md0 --level=1 --raid-disks=2 /dev/sdaX /dev/sdaY
```

```
3. $ sudo mkfs.ext4 /dev/md0
$ sudo mkdir /myraid
$ sudo mount /dev/md0 /myraid
and add to /etc/fstab
```



- 4. \$ mdadm --detail --scan >> /etc/mdadm.conf
- 5. \$ cat /proc/mdstat

LFS201: V\_2018-12-25

You should probably verify that with a reboot, the **RAID** volume is mounted automatically. When you are done, you probably will want to clean up by removing the line from /etc/fstab, and then getting rid of the partitions.

