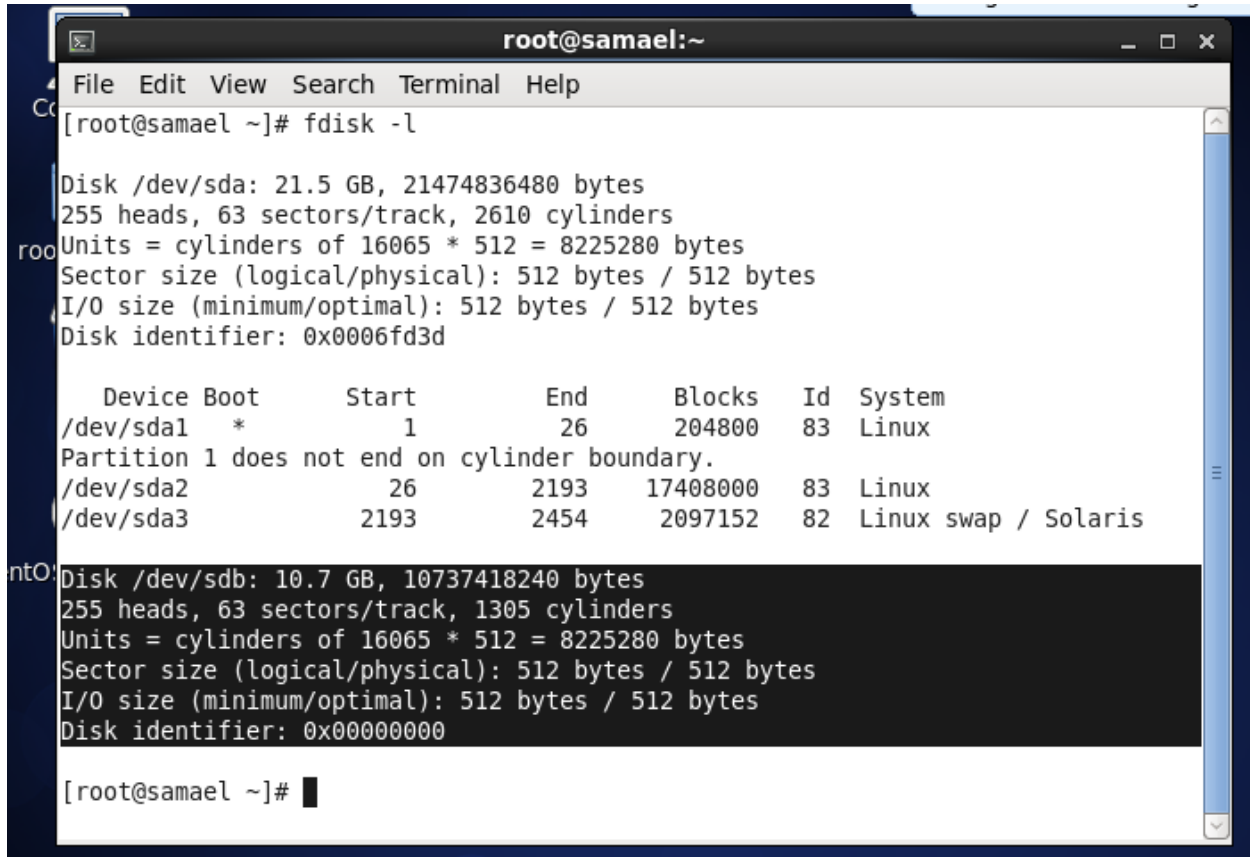


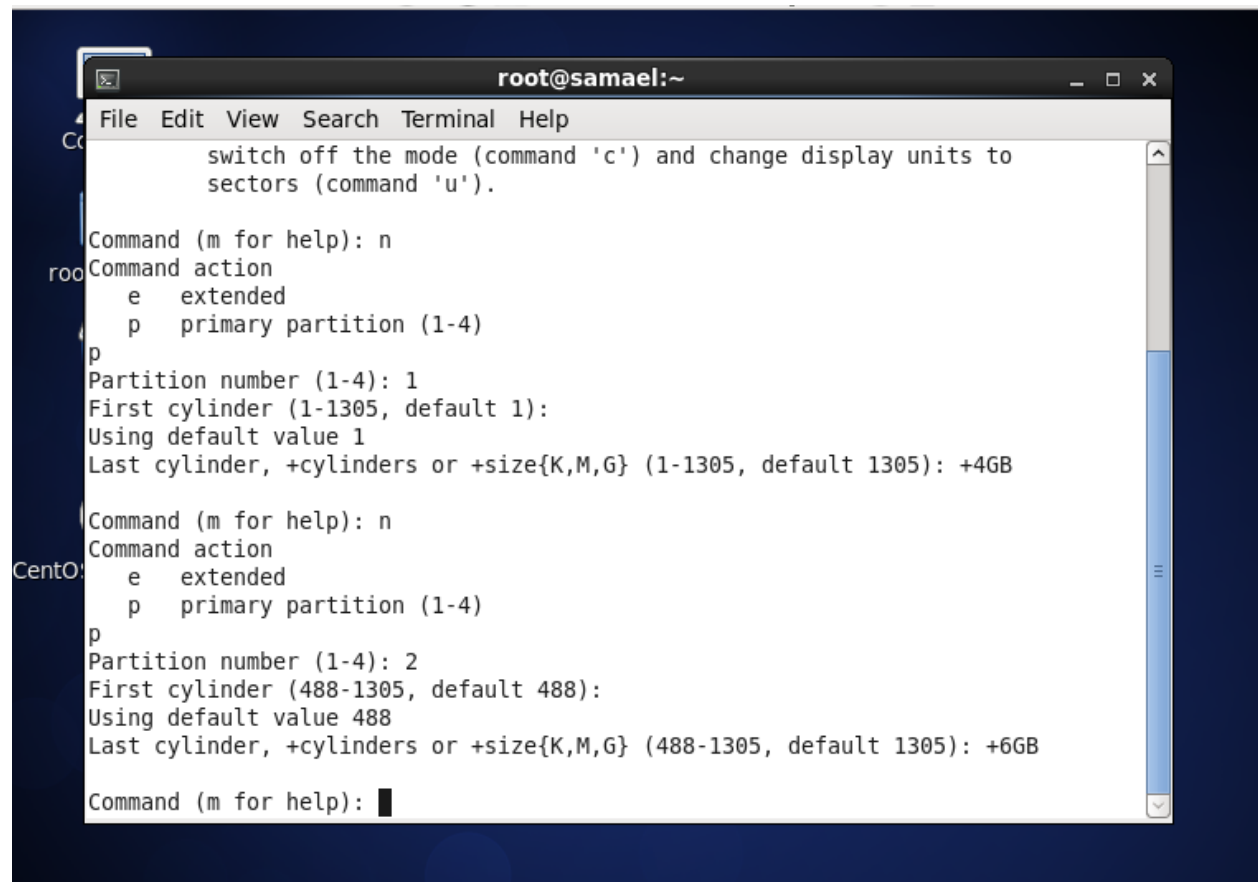
## ASSIGNMENT DAY – 5

Question 1. Add a 10 GB disk to the CentOS.



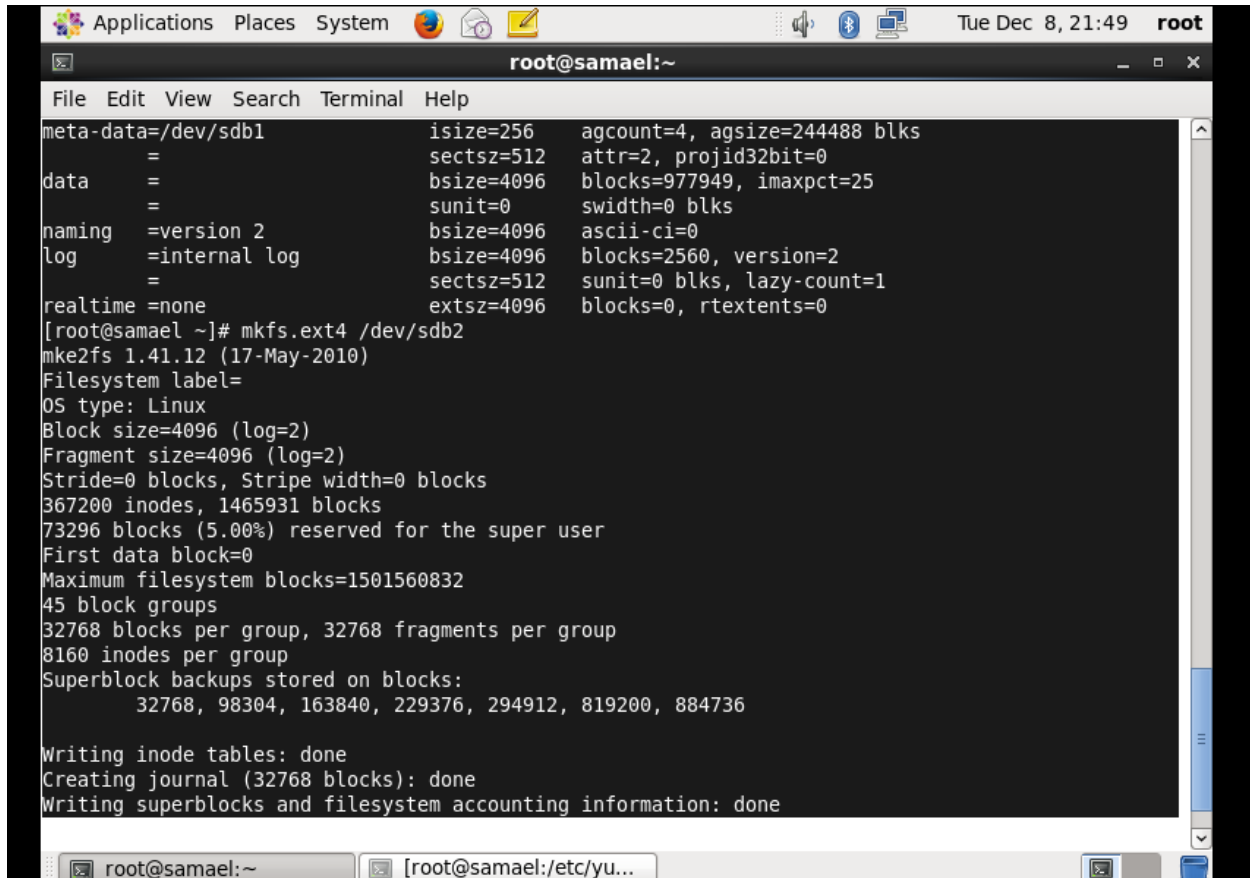
```
root@samael:~  
File Edit View Search Terminal Help  
[root@samael ~]# fdisk -l  
  
Disk /dev/sda: 21.5 GB, 21474836480 bytes  
255 heads, 63 sectors/track, 2610 cylinders  
Units = cylinders of 16065 * 512 = 8225280 bytes  
Sector size (logical/physical): 512 bytes / 512 bytes  
I/O size (minimum/optimal): 512 bytes / 512 bytes  
Disk identifier: 0x0006fd3d  
  
   Device Boot      Start         End      Blocks   Id  System  
/dev/sda1 *          1           26       204800    83   Linux  
Partition 1 does not end on cylinder boundary.  
/dev/sda2             26        2193     17408000    83   Linux  
/dev/sda3            2193        2454     2097152    82   Linux swap / Solaris  
  
Disk /dev/sdb: 10.7 GB, 10737418240 bytes  
255 heads, 63 sectors/track, 1305 cylinders  
Units = cylinders of 16065 * 512 = 8225280 bytes  
Sector size (logical/physical): 512 bytes / 512 bytes  
I/O size (minimum/optimal): 512 bytes / 512 bytes  
Disk identifier: 0x00000000  
  
[root@samael ~]#
```

Question 2. Create 2 partitions, 4GB and 6GB of space respectively.



```
root@samael:~  
File Edit View Search Terminal Help  
switch off the mode (command 'c') and change display units to  
sectors (command 'u').  
Command (m for help): n  
Command action  
  e   extended  
  p   primary partition (1-4)  
p  
Partition number (1-4): 1  
First cylinder (1-1305, default 1):  
Using default value 1  
Last cylinder, +cylinders or +size{K,M,G} (1-1305, default 1305): +4GB  
Command (m for help): n  
Command action  
  e   extended  
  p   primary partition (1-4)  
p  
Partition number (1-4): 2  
First cylinder (488-1305, default 488):  
Using default value 488  
Last cylinder, +cylinders or +size{K,M,G} (488-1305, default 1305): +6GB  
Command (m for help):
```

Question 3. Format 4GB with xfs and 6GB with ext4 file system.

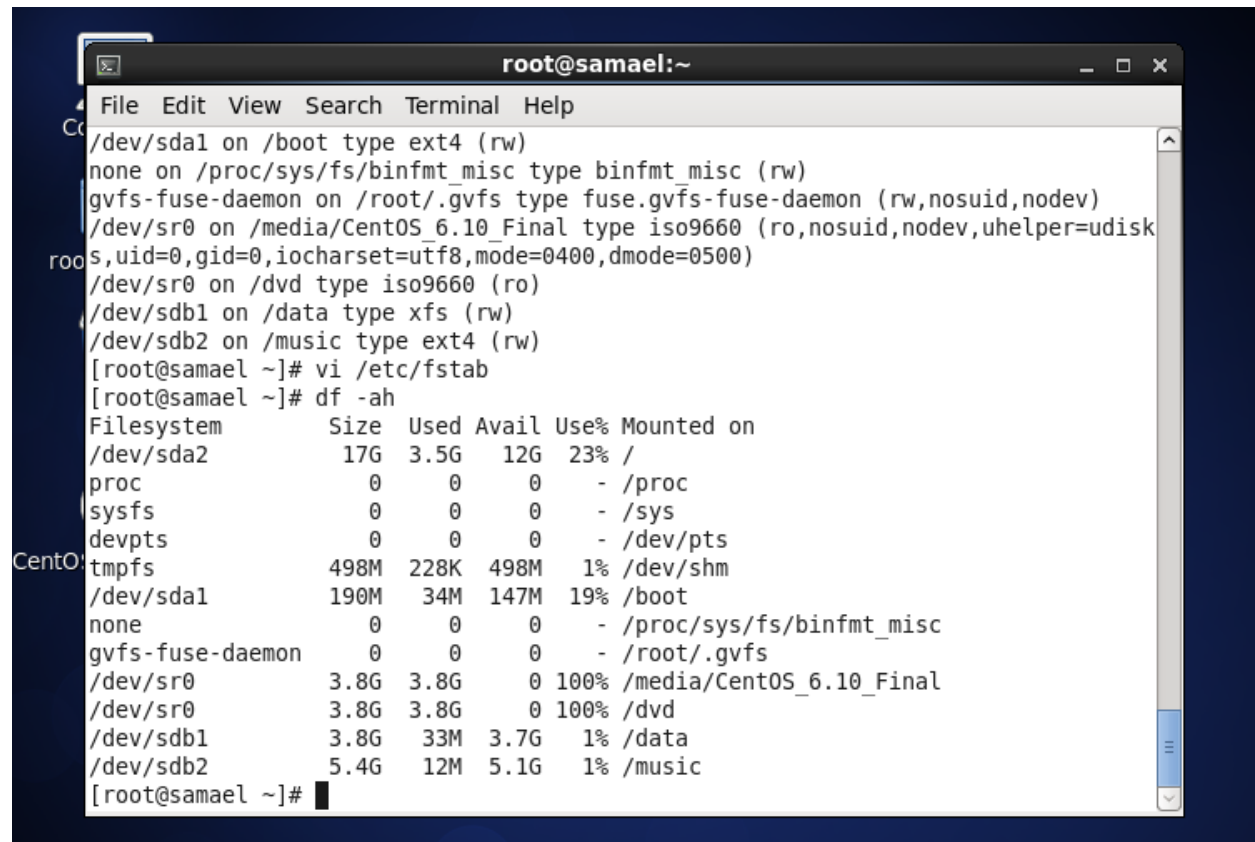


The screenshot shows a terminal window titled "root@samael:~" with a menu bar (File, Edit, View, Search, Terminal, Help) and a system bar at the top (Applications, Places, System, Tue Dec 8, 21:49, root). The terminal displays the output of the command `mkfs.ext4 /dev/sdb2`. The output lists various filesystem parameters for the new ext4 filesystem on /dev/sdb2.

```
meta-data=/dev/sdb1             isize=256    agcount=4, agsize=244488 blks
      =                       sectsz=512   attr=2, projid32bit=0
data      =                       bsize=4096   blocks=977949, imaxpct=25
      =                       sunit=0      swidth=0 blks
naming    =version 2           bsize=4096   ascii-ci=0
log       =internal log       bsize=4096   blocks=2560, version=2
      =                       sectsz=512   sunit=0 blks, lazy-count=1
realtime  =none                extsz=4096   blocks=0, rtextents=0
[root@samael ~]# mkfs.ext4 /dev/sdb2
mke2fs 1.41.12 (17-May-2010)
Filesystem label=
OS type: Linux
Block size=4096 (log=2)
Fragment size=4096 (log=2)
Stride=0 blocks, Stripe width=0 blocks
367200 inodes, 1465931 blocks
73296 blocks (5.00%) reserved for the super user
First data block=0
Maximum filesystem blocks=1501560832
45 block groups
32768 blocks per group, 32768 fragments per group
8160 inodes per group
Superblock backups stored on blocks:
    32768, 98304, 163840, 229376, 294912, 819200, 884736

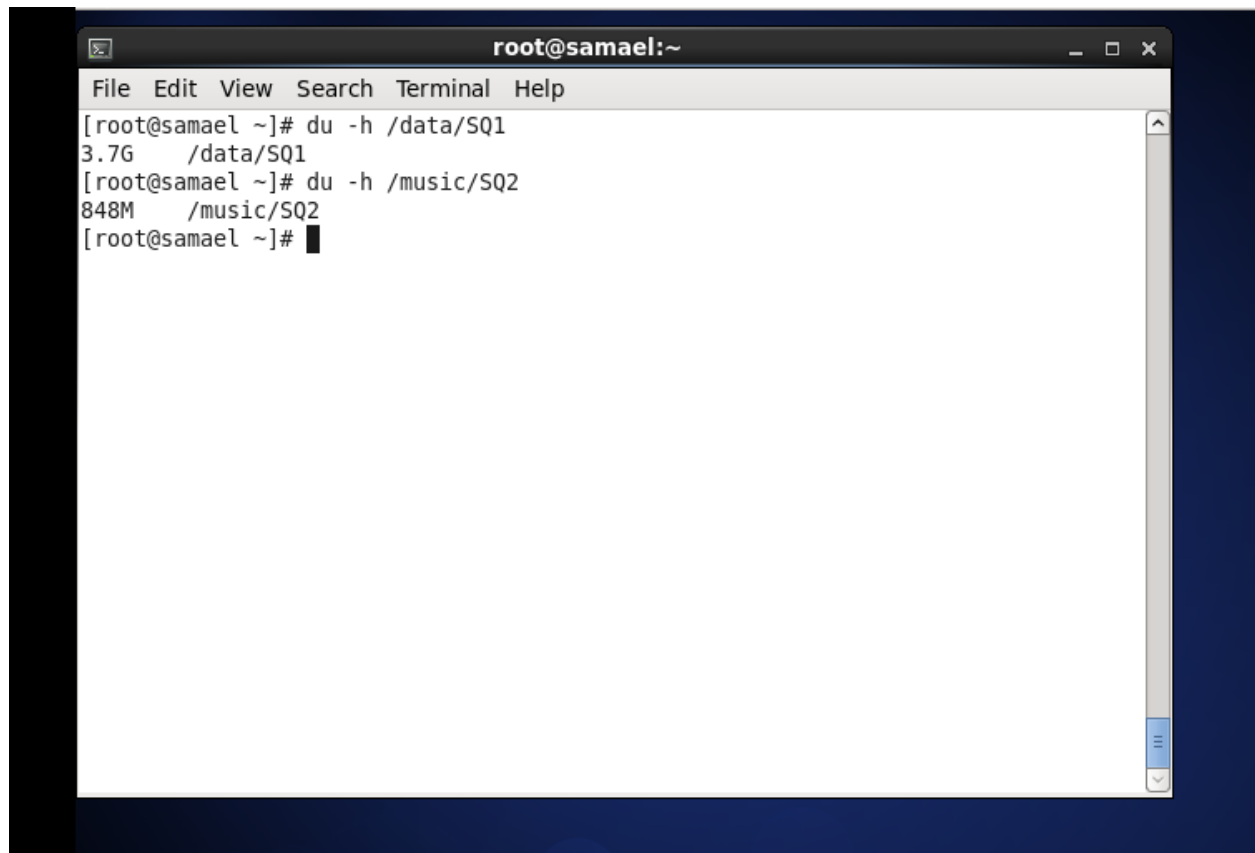
Writing inode tables: done
Creating journal (32768 blocks): done
Writing superblocks and filesystem accounting information: done
```

Question 4. Mount 4GB and 6GB in /data and /music directory respectively.

A terminal window titled 'root@samael:~' with a menu bar (File, Edit, View, Search, Terminal, Help). The terminal shows the output of 'df -ah' and 'mount'. The 'df -ah' output is a table with columns: Filesystem, Size, Used, Avail, Use%, and Mounted on. The 'mount' output shows various filesystems and their mount points. The terminal also shows the user editing /etc/fstab and the prompt returning to root@samael ~#.

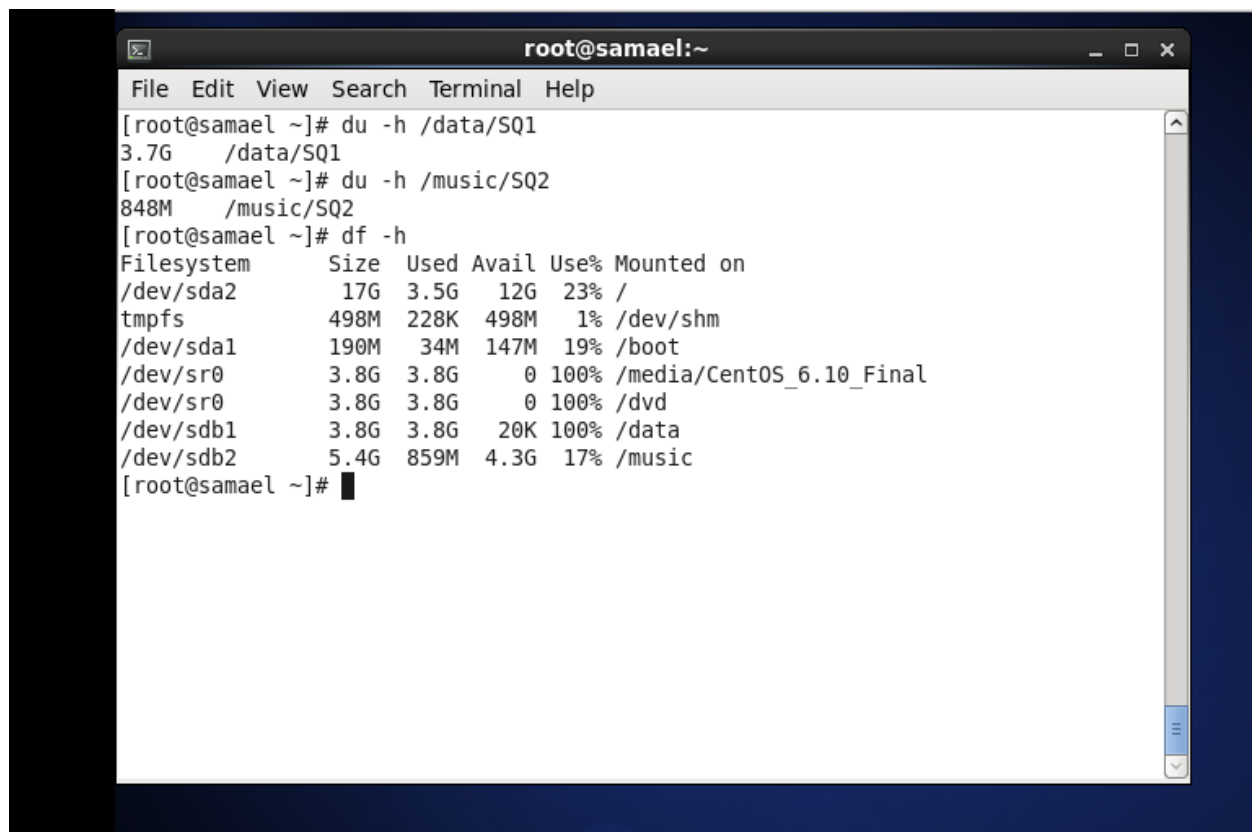
```
root@samael:~  
File Edit View Search Terminal Help  
/dev/sda1 on /boot type ext4 (rw)  
none on /proc/sys/fs/binfmt_misc type binfmt_misc (rw)  
gvfs-fuse-daemon on /root/.gvfs type fuse.gvfs-fuse-daemon (rw,nosuid,nodev)  
/dev/sr0 on /media/CentOS_6.10_Final type iso9660 (ro,nosuid,nodev,uhelper=udisk  
s,uid=0,gid=0,ioccharset=utf8,mode=0400,dmode=0500)  
/dev/sr0 on /dvd type iso9660 (ro)  
/dev/sdb1 on /data type xfs (rw)  
/dev/sdb2 on /music type ext4 (rw)  
[root@samael ~]# vi /etc/fstab  
[root@samael ~]# df -ah  
Filesystem      Size  Used Avail Use% Mounted on  
/dev/sda2       17G   3.5G   12G   23% /  
proc            0      0      0    -  /proc  
sysfs           0      0      0    -  /sys  
devpts          0      0      0    -  /dev/pts  
tmpfs           498M   228K   498M    1% /dev/shm  
/dev/sda1       190M   34M   147M   19% /boot  
none            0      0      0    -  /proc/sys/fs/binfmt_misc  
gvfs-fuse-daemon 0      0      0    -  /root/.gvfs  
/dev/sr0        3.8G   3.8G    0 100% /media/CentOS_6.10_Final  
/dev/sr0        3.8G   3.8G    0 100% /dvd  
/dev/sdb1       3.8G   33M   3.7G    1% /data  
/dev/sdb2       5.4G   12M   5.1G    1% /music  
[root@samael ~]#
```

Question 5. Create 1 file of 1GB in each of the mount point created above.

A terminal window titled 'root@samael:~' with a menu bar (File, Edit, View, Search, Terminal, Help). The terminal shows the following commands and output:

```
[root@samael ~]# du -h /data/SQ1
3.7G    /data/SQ1
[root@samael ~]# du -h /music/SQ2
848M    /music/SQ2
[root@samael ~]#
```

Question 6. Verify the disk consumption and disk space free in the mounted partitions.

A terminal window titled 'root@samael:~' with a menu bar (File, Edit, View, Search, Terminal, Help). The terminal shows the following commands and output:

```
[root@samael ~]# du -h /data/SQ1
3.7G    /data/SQ1
[root@samael ~]# du -h /music/SQ2
848M    /music/SQ2
[root@samael ~]# df -h
```

Filesystem	Size	Used	Avail	Use%	Mounted on
/dev/sda2	17G	3.5G	12G	23%	/
tmpfs	498M	228K	498M	1%	/dev/shm
/dev/sda1	190M	34M	147M	19%	/boot
/dev/sr0	3.8G	3.8G	0	100%	/media/CentOS_6.10_Final
/dev/sr0	3.8G	3.8G	0	100%	/dvd
/dev/sdb1	3.8G	3.8G	20K	100%	/data
/dev/sdb2	5.4G	859M	4.3G	17%	/music

```
[root@samael ~]#
```