

```

kevin@cisc220:~$ df -h
Filesystem                Size      Used Avail Use% Mounted on
udev                     981M          0  981M   0% /dev
tmpfs                    201M       3.3M  197M   2% /run
/dev/mapper/cisc220--vg-root 17G       2.7G   13G  17% /
tmpfs                   1001M       4.0K 1001M   1% /dev/shm
tmpfs                     5.0M          0   5.0M   0% /run/lock
tmpfs                   1001M          0 1001M   0% /sys/fs/cgroup
/dev/sda1                 472M      198M  250M  45% /boot
tmpfs                    201M          0  201M   0% /run/user/1000
/home/kevin/.Private      17G       2.7G   13G  17% /home/kevin
kevin@cisc220:~$
kevin@cisc220:~$
kevin@cisc220:~$
kevin@cisc220:~$
kevin@cisc220:~$ lsblk
NAME                                MAJ:MIN RM  SIZE RO TYPE  MOUNTPOINT
sda                                 8:0    0   50G  0 disk
├─sda1                             8:1    0  487M  0 part  /boot
├─sda2                             8:2    0     1K  0 part
└─sda5                             8:5    0  49.5G  0 part
   ├─cisc220--vg-root              252:0    0  16.6G  0 lvm    /
   ├─cisc220--vg-swap_1            252:1    0     2G  0 lvm
   └─cryptswap1                    252:2    0     2G  0 crypt [SWAP]
sdb                                 8:16    0     1G  0 disk
sr0                                11:0    1 1024M  0 rom
kevin@cisc220:~$

```

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This is the new disk, and it only shows up after using lsblk, not df -h.
We see that the new disk's name is sdb.

```
kevin@cisc220:~$ sudo fdisk /dev/sdb
```

```
Welcome to fdisk (util-linux 2.27.1).
```

```
Changes will remain in memory only, until you decide to write them.
```

```
Be careful before using the write command.
```

```
Command (m for help): p
```

```
Disk /dev/sdb: 1 GiB, 1076813824 bytes, 2103152 sectors
```

```
Units: sectors of 1 * 512 = 512 bytes
```

```
Sector size (logical/physical): 512 bytes / 512 bytes
```

```
I/O size (minimum/optimal): 512 bytes / 512 bytes
```

```
Disklabel type: dos
```

```
Disk identifier: 0xf146d77b
```

Device	Boot	Start	End	Sectors	Size	Id	Type
/dev/sdb1		2048	2103151	2101104	1G	5	Extended
/dev/sdb5		4096	1028095	1024000	500M	83	Linux
/dev/sdb6		1030144	2054143	1024000	500M	83	Linux

```
Command (m for help): _
```

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```
kevin@cisc220:~$ df -h
```

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tmpfs	201M	3.3M	197M	2%	/run
/dev/mapper/cisc220--vg-root	17G	2.7G	13G	17%	/
tmpfs	1001M	4.0K	1001M	1%	/dev/shm
tmpfs	5.0M	0	5.0M	0%	/run/lock
tmpfs	1001M	0	1001M	0%	/sys/fs/cgroup
/dev/sda1	472M	198M	250M	45%	/boot
tmpfs	201M	0	201M	0%	/run/user/1000
/home/kevin/.Private	17G	2.7G	13G	17%	/home/kevin

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```
kevin@cisc220:~$ lsblk
```

NAME	MAJ:MIN	RM	SIZE	RO	TYPE	MOUNTPOINT
sda	8:0	0	50G	0	disk	
└─sda1	8:1	0	487M	0	part	/boot
└─sda2	8:2	0	1K	0	part	
└─sda5	8:5	0	49.5G	0	part	
└─cisc220--vg-root	252:0	0	16.6G	0	lvm	/
└─cisc220--vg-swap_1	252:1	0	2G	0	lvm	
└─cryptswap1	252:2	0	2G	0	crypt	[SWAP]
sdb	8:16	0	1G	0	disk	
└─sdb1	8:17	0	1K	0	part	
└─sdb5	8:21	0	500M	0	part	
└─sdb6	8:22	0	500M	0	part	
sr0	11:0	1	1024M	0	rom	

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Only lsblk shows the new hard disk and partitions

```
kevin@cisc220:~$
```

```

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Filesystem                Size      Used Avail Use% Mounted on
udev                      981M        0   981M   0% /dev
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/dev/mapper/cisc220--vg-root 17G    2.7G    13G  17% /
tmpfs                     1001M    4.0K   1001M   1% /dev/shm
tmpfs                     5.0M        0    5.0M   0% /run/lock
tmpfs                     1001M        0   1001M   0% /sys/fs/cgroup
/dev/sda1                 472M    198M   250M  45% /boot
tmpfs                     201M        0    201M   0% /run/user/1000
/home/kevin/.Private       17G    2.7G    13G  17% /home/kevin
/dev/sdb5                 477M    2.3M   449M   1% /home/kevin/newDisk1
/dev/sdb6                 477M    2.3M   449M   1% /home/kevin/newDisk2
kevin@cisc220:~$
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kevin@cisc220:~$ lsblk
NAME                                MAJ:MIN RM  SIZE RO TYPE  MOUNTPOINT
sda                                 8:0    0   50G  0 disk
├─sda1                             8:1    0  487M  0 part  /boot
├─sda2                             8:2    0     1K  0 part
├─sda5                             8:5    0  49.5G  0 part
│   ├─cisc220--vg-root             252:0    0  16.6G  0 lvm    /
│   └─cisc220--vg-swap_1          252:1    0     2G  0 lvm
│       └─cryptswap1              252:2    0     2G  0 crypt [SWAP]
sdb                                 8:16    0     1G  0 disk
├─sdb1                             8:17    0     1K  0 part
├─sdb5                             8:21    0   500M  0 part  /home/kevin/newDisk1
└─sdb6                             8:22    0   500M  0 part  /home/kevin/newDisk2
sr0                                11:0    1  1024M  0 rom
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```

Now both lsblk and df -h show the new hard drive (or at least the partitions)

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When I did this and then restarted my machine, the mounting of the new disk failed and stopped virtualbox from getting into the virtual machine. I had to then remove the two lines I added to make it work again.

```
kevin@cisc220:/etc$ cat fstab
# /etc/fstab: static file system information.
#
# Use 'blkid' to print the universally unique identifier for a
# device; this may be used with UUID= as a more robust way to name devices
# that works even if disks are added and removed. See fstab(5).
#
# <file system> <mount point> <type> <options> <dump> <pass>
/dev/mapper/cisc220--vg-root / ext4 errors=remount-ro 0 1
# /boot was on /dev/sda1 during installation
UUID=1c78eaef-0149-4f6e-9ab1-dfe1f8371821 /boot ext2 defaults 0 2
#/dev/mapper/cisc220--vg-swap_1 none swap sw 0 0
/dev/mapper/cryptswap1 none swap sw 0 0
/dev/sdb5 /home/kevin/newDisk1 defaults 0 0
/dev/sdb6 /home/kevin/newDisk2 defaults 0 0
kevin@cisc220:/etc$ _
```