

8. Mounting Fixed Disks

Fixed Disks's operations such as mount and unmount is the same as removable devices and the only difference is when

you want a Hard Drive auto-mounts every time the system boots. By default, if you mount a device and then reboot the system

then it just gets unmounted. For solving this problem we should add an entry in `/etc/fstab` that points to the device we

want to permanently connect and mount.

How to point to the device we want to auto-mount?

- By Its Label
- By its UUID
- By its device name

We can view them by entering this command:

```
lsblk -f
```

How to add an entry in `/etc/fstab` ?

```
sudoedit /etc/fstab
# <file system>                <mount point> <type> <options> <dump>
<pass>
/dev/sdc1      /mnt/www      ext4    defaults    0    1
UUID=xxxx     /mnt/www      ext4    defaults    0    1
LABEL=XXX     /mnt/www      ext4    defaults    0    1
```

What options can i use instead of `defaults` ?

- `ro` -> Read-Only
- `rw` -> Read-Write (Default)
- `sync` -> wait for the completion of the read-write and then move on (Slower but more trusted)
- `async` -> Don't wait and do the next operations (Faster but more chance to data corruptions)

- `exec , noexec` -> Can not run a binary file in this partition
- `auto , noauto` -> auto-mount a partition or not

* We can use multiple of them:

```
/dev/sdc1    /mnt/www    ext4    ro,async,noexec,auto    0    1
```

Test `/etc/fstab`

Why should we test it out?

because if there's any mistake in this file the whole OS will not even boot and thus you won't be able to use the system without a Live ISO Image.

How to test it?

```
mount -a
mount /mnt/www
```

- `mount -a` -> Mount all disks and partitions (it won't remount the disks that are already mounted).
- `mount /mnt/www` -> use the mount point you specified in `/etc/fstab` for you new partition.