Create partitions using CLI on linux

First and foremost:

!! WARNING !!

These commands are EXAMPLES. DELETING partitions, MODIFYING and FORMATTING filesystems destroys data and/or may prevent your machine from booting. Make backups. Use at own risk. Try on a machine you don't mind losing all data on. caveat admin.

To quickly set up a drive up as a single ext4 partition… View detected devices of class "DISK"

```
lshw -C disk
```

View existing partition table(s)

```
fdisk -l
```

Edit the partition table for my chosen device (in this case, "sdx")

```
fdisk /dev/sdx
```

Within FDISK, press:

```
d ...to delete the current partition
n ...to create a new partition
p ...to specify it as a PRIMARY partition
1 ...to set it as the 1ST primary partition
w ...to write the changes.
```

Display the new partition table:

```
fdisk -l
```

Format the new partition's filesystem as type ext4

```
mkfs -t ext4 /dev/sdx1
```

Create a new directory where the new drive will mount into:

```
mkdir /storage
mount /dev/sdx1 /storage
```

TUNING Remove reserved blocks (i.e. set to 0%), since this drive is just for user data

```
tune2fs -m 0 /dev/sdx1
```

Since server is on UPS, Set write-back so apps don't wait for actual disk writes

```
tune2fs -o journal_data_writeback /dev/sdx1
```

Mount at boot up using /etc/fstab and also set write-back policy

```
vi /etc/fstab
```

Find (or add) the relevant line in fstab for your drive. Parameters in fstab are separated by white space, for example the drive described above might appear as:

```
/dev/sdx1 /storage ext4 relatime,errors=remount-ro 0 1
```

- The first parameter identifies the partition (either by /dev/ or a long UUID);
- The second parameter is the path the partition will be mounted to;
- Third is the filesystem type;
- The fourth parameter contains the options;
- Fifth is the dump schedule for backups; and,
- The sixth parameter is pass-number (used to control fsck order).

Change the options (4th parameter) to:

```
noatime,nodiratime,data=writeback,barrier=0,nobh,errors=remount-ro
```

Reboot to check that everything went well. Remember these commands are destructive! Have backups and be careful!

From:
https://wiki.plecko.hr/ - **Eureka Moment**

Permanent link:
https://wiki.plecko.hr/doku.php?id=linux:shell_commands:fdisk&rev=1572509100

Last update: **2019/10/31 09:05**