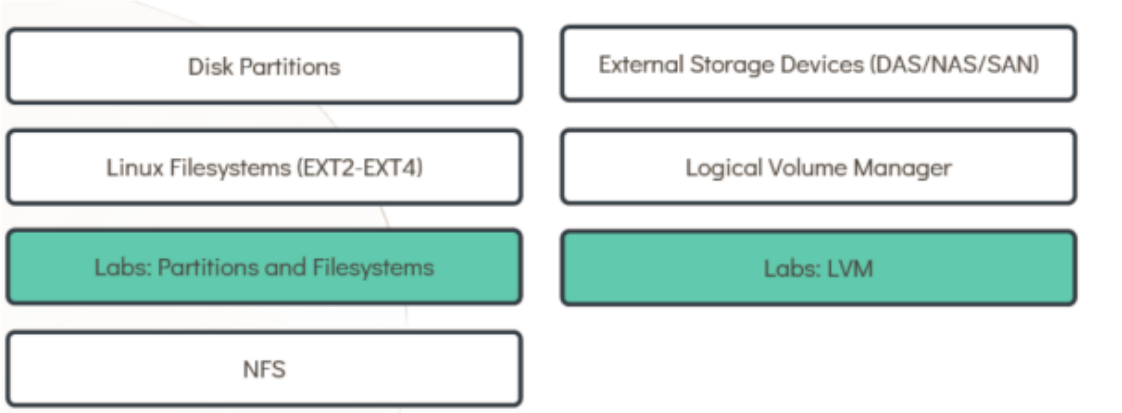
DISK'S & PARTITIONS

- Take me to the Tutorial
- In this lecture we will learn about Disk Partitions.
- We will look at the File Systems such as EXT series and NFS.
- External Storage Devices such as DAS,NAS, and SAN.
- LVM in Action.

106 lines (85 sloc) | 3.57 KB



List all Block devices

- Block devices are special files that refer to or represent a device (which could be anything from a hard drive to a USB drive). So naturally, there are command line tools that help you with your block devices-related work.
- Major Number is used to identigy the type of block device, value 8 represent a SCSI device starts with SD.
- Minor Number is uset to distuinguish individual, physical or logical devices.

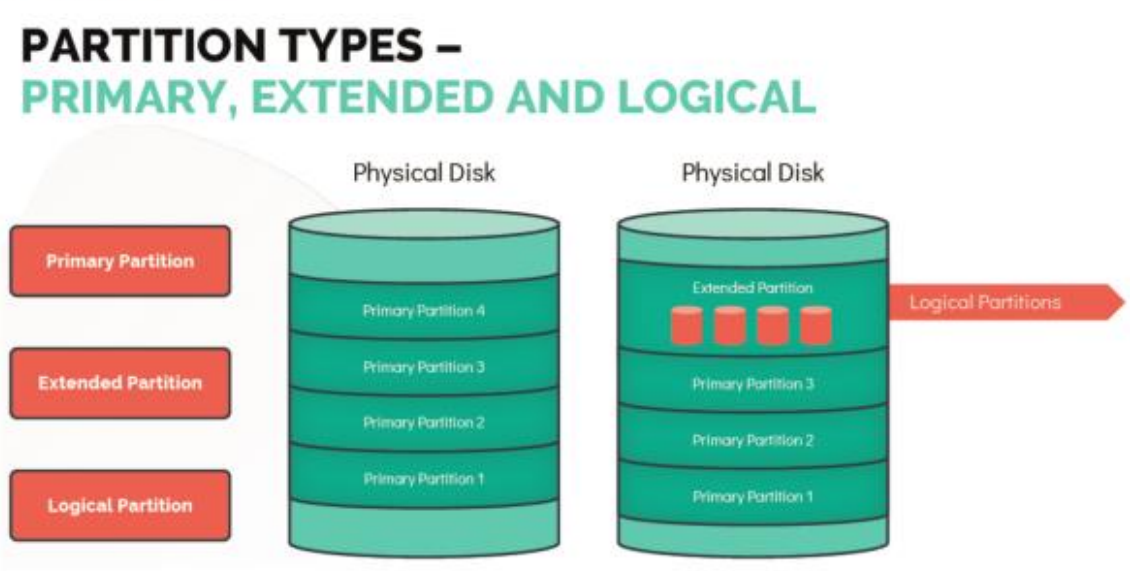
```
[~]$ lsblk
```

```
[~]$ ls -l /dev/ | grep "^b"
```

- To Print,Create and Delete the parition table use **`fdisk -l`** command

```
[~]$ sudo fdisk -l /dev/sda
```

Partition Types -



- PRIMARY - Use to Boot an Operating System.
- EXTENDED - Can host logical partitions but cannot be used on its own.
- LOGICAL - Created within an extended partition.

Creating Partitions -

- `Gdisk` is an improved version of the `fdisk` that works with the GTP partition table.

- To create a partition on **sdb** use

```
[~]$ gdisk /dev/sdb
GPT fdisk (gdisk) version 1.0.1

Partition table scan:
  MBR: protective
  BSD: not present
  APM: not present
  GPT: present
Found valid GPT with protective MBR; using GPT.

Command (? for help): ?
b back up GPT data to a file
c change a partition's name
d delete a partition
i show detailed information on a partition
l list known partition types
n add a new partition
o create a new empty GUID partition table (GPT)
p print the partition table
q quit without saving changes
r recovery and transformation options (experts only)
s sort partitions
t change a partition's type code
v verify disk
w write table to disk and exit
x extra functionality (experts only)
? print this menu

Command (? for help): n
Partition number (1-128, default 1): 1
First sector (34-41943006, default = 2048) or {+-}size{KMGTP}: 2048
Information: Moved requested sector from 34 to 2048 in
order to align on 2048-sector boundaries.
Use 'l' on the experts' menu to adjust alignment
Last sector (2048-41943006, default = 41943006) or {+-}size{KMGTP}:
41943006
```

```
Current type is 'Linux filesystem'
Hex code or GUID (L to show codes, Enter = 8300):
Changed type of partition to 'Linux filesystem'
Command (? for help): w
Final checks complete. About to write GPT data. THIS WILL OVERWRITE
EXISTING
PARTITIONS!!
Do you want to proceed? (Y/N): Y
OK; writing new GUID partition table (GPT) to /dev/vdb.
The operation has completed successfully.
```

```
[~]$ sudo fdisk -l /dev/sdb
Disk /dev/sdb: 20 GiB, 128035676160 bytes, 250069680 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: gpt
Disk identifier: 7CABF26E-9723-4406-ZEA1-C2B9B6270A23
Device Start End Sectors Size Type
/dev/sdb1 2048 41943006 204800 20GB Linux filesystem
```